

**OLUFEMI AJAYI AKINOLA**

**THE STATE AND INTEGRATED RURAL DEVELOPMENT  
IN SOUTHWESTERN NIGERIA, c.1945-1992,  
with a case study of the  
Ekiti-Akoko Agricultural Development Project,  
Ondo State**

**A thesis submitted for a final examination for the  
degree of Doctor of Philosophy**

**Department of Economic History  
London School of Economics and Political Science**

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***To the triumph of the human spirit***



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## **Abstract**

This thesis examines the changing role of Nigeria's state system in integrated rural development, the post-war global effort to draw peasant producers irretrievably into commercial agriculture. The thesis analyzes policy and programme interventions by the state, or by international development institutions acting through the state, to promote capital-intensive agriculture as well as expand market-based exchange relations in rural Nigeria. The study's structural context is provided by southwestern Nigeria's experience in state-led agrarian change since the 1940s. Its immediate empirical referents are the Ekiti-Akoko Agricultural Development Project (EAADP) and the Ondo State Agricultural Development Project (ODSADEP), implemented successively in cocoa-growing Ondo State in the 1980s with World Bank assistance.

Agricultural change in southwestern Nigeria since the 19th century has been conceived in terms of the near-total absence of state intervention or its ubiquity; high turnover of multiple, conflicting policies, strategies and implementing agencies; and class-based conflict between state, capital, and peasantry. While these conceptions still capture the essence of state action in rural Western Nigeria, they have occasionally oversimplified reality. Existing analyses have also had a predominantly national and/or regional focus and reinforced established policy biases by emphasising export-crop agriculture to the near-total exclusion of food-cropping.

The present study attempts a historical and structural analysis of the state's role since the 1940s, focusing on small-scale food farming at sub-regional and project levels. Quantitative and qualitative methods are applied to a data base comprising archival material; official documents and project reports; interviews with farmers and with officials; as well as a survey of farmers in four villages in north-eastern Ondo State, to analyze policy and socio-technical constraints to commercial agriculture, and to assess EAADP and ODSADEP's operations.

The thesis concludes that state activism in rural Ondo State has produced mixed results. The reason, however, is not so much because small farmers have been unremitting opponents of capitalist methods as because local realities have been ignored in the design and implementation of official strategies. One policy implication of this is that the 'blueprint model' of planning must be reconstructed to promote greater local influence on development thinking. Another is the need to redefine the scale of development projects in favour of programmes with more modest objectives and performance targets. Above all, policy and political processes have to be opened up to autonomous farmers' groups.

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The dissertation is dedicated to the triumph of the human spirit, in the hope that agricultural extension officers and agents in Nigeria (as elsewhere in Africa and the Third World) will one day appreciate that since the knowledge of farming methods and techniques is ultimately diffuse and not necessarily concentrated, agricultural learning has to be mutual, flexible, and promote self-development in order to be most productive.

Olufemi A. Akinola

London, August 1995.

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## **Note on Footnote Style**

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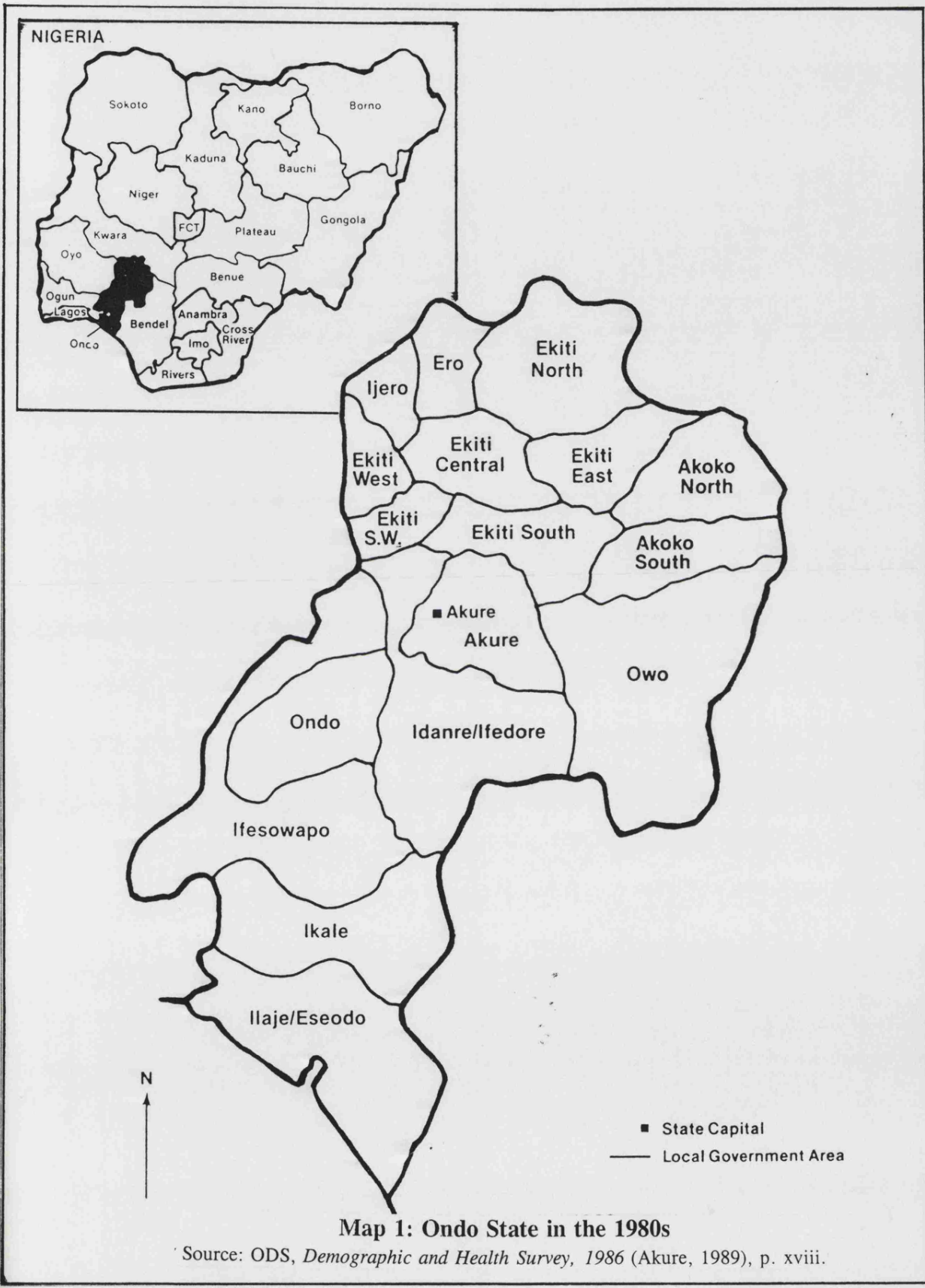
## List of Abbreviations

<i>AA</i>	<i>African Affairs</i>
<i>AAE</i>	<i>Agricultural Administration and Extension</i>
<i>AD</i>	<i>Africa Development</i>
<i>AE</i>	<i>African Environment</i>
<i>AEH</i>	<i>African Economic History</i>
<i>AER</i>	<i>American Economic Review</i>
<i>ADR</i>	<i>Asian Development Review</i>
<i>AJAE</i>	<i>American Journal of Agricultural Economics</i>
<i>AJAS</i>	<i>African Journal of Agricultural Studies</i>
<b>APMEPU</b>	<b>Agricultural Projects Monitoring, Evaluation and Planning Unit</b>
<i>APSR</i>	<i>American Political Science Review</i>
<i>ARMFB</i>	<i>African Review of Money, Finance and Banking</i>
<i>ASR</i>	<i>African Studies Review</i>
<i>BRES</i>	<i>Bulletin of Rural and Economic Sociology</i>
<b>CARD</b>	<b>Centre for Agricultural and Rural Development (University of Ibadan)</b>
<i>CDJ</i>	<i>Community Development Journal</i>
<i>CJAS</i>	<i>Canadian Journal of African Studies</i>
<i>DaC</i>	<i>Development and Change</i>
<i>DPR</i>	<i>Development Policy Review</i>
<b>EAADP</b>	<b>Ekiti-Akoko Agricultural Development Project</b>
<i>EDCC</i>	<i>Economic Development and Cultural Change</i>
<i>EFR</i>	<i>Economic and Financial Review</i>
<i>EcG</i>	<i>Economic Geography</i>
<i>EHR</i>	<i>Economic History Review</i>
<i>EcJ</i>	<i>Economic Journal</i>
<b>FACU</b>	<b>Federal Agricultural Co-ordinating Unit</b>
<i>FaD</i>	<i>Finance and Development</i>

<i>FaF</i>	<i>Farm and Forest</i>
FGN	Federal Government of Nigeria
<i>FP</i>	<i>Food Policy</i>
<i>FRIS</i>	<i>Food Research Institute Studies</i>
FSC	Farm Service Centre
<i>GR</i>	<i>Geographical Review</i>
<i>IJA</i>	<i>Ife Journal of Agriculture</i>
<i>IJAE</i>	<i>Indian Journal of Agricultural Economics</i>
<i>IJAHS</i>	<i>International Journal of African Historical Studies</i>
<i>ILR</i>	<i>International Labour Review</i>
<i>IPSR</i>	<i>International Political Science Review</i>
IRD	Integrated Rural Development
<i>ISSJ</i>	<i>International Social Science Journal</i>
<i>JAAS</i>	<i>Journal of Asian and African Studies</i>
<i>JAH</i>	<i>Journal of African History</i>
<i>JAS</i>	<i>Journal of the African Society</i>
<i>JCA</i>	<i>Journal of Contemporary Asia</i>
<i>JCCP</i>	<i>Journal of Commonwealth and Comparative Politics</i>
<i>JDA</i>	<i>Journal of Developing Areas</i>
<i>JDS</i>	<i>Journal of Development Studies</i>
<i>JEL</i>	<i>Journal of Economic Literature</i>
<i>JEP</i>	<i>Journal of Economic Perspectives</i>
<i>JFE</i>	<i>Journal of Farm Economics</i>
<i>JHS</i>	<i>Journal of Historical Sociology</i>
<i>JHSN</i>	<i>Journal of the Historical Society of Nigeria</i>
<i>JID</i>	<i>Journal of International Development</i>
<i>JMAS</i>	<i>Journal of Modern African Studies</i>
<i>JPE</i>	<i>Journal of Political Economy</i>
<i>JRAS</i>	<i>Journal of the Royal African Society</i>

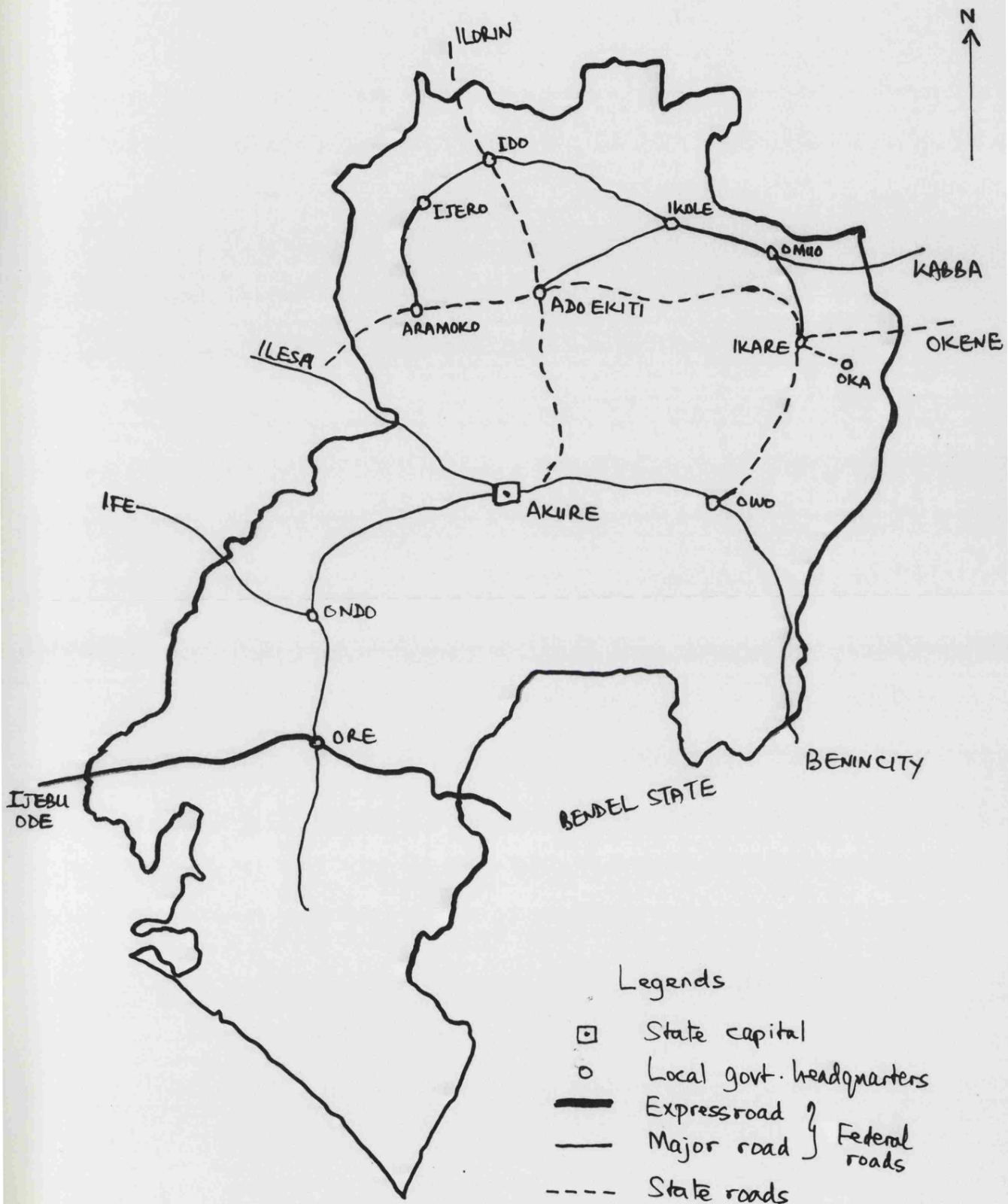
<i>JRGS</i>	<i>Journal of the Royal Geographical Society</i>
<i>JRS</i>	<i>Journal of Rural Studies</i>
LG	Local Government
LGA	Local Government Area
<i>MPD</i>	<i>Manchester Papers on Development</i>
NAI	National Archives, Ibadan
<i>NAJ</i>	<i>Nigerian Agricultural Journal</i>
<i>NGJ</i>	<i>Nigerian Geographical Journal</i>
NIIA	Nigerian Institute for International Affairs
NISH	National Integrated Survey of Households
<i>NJESS</i>	<i>Nigerian Journal of Economic and Social Studies</i>
<i>NJPS</i>	<i>Nigerian Journal of Political Science</i>
<i>NLR</i>	<i>New Left Review</i>
<i>OAS</i>	<i>Oxford Agrarian Studies</i>
ODS	Ondo State of Nigeria
ODSG	Ondo State Government
ODSADEP	Ondo State Agricultural Development Project
<i>PAAD</i>	<i>Public Administration and Development</i>
<i>PG</i>	<i>Professional Geographer</i>
<i>PHG</i>	<i>Progress in Human Geography</i>
<i>PRGS</i>	<i>Proceedings of the Royal Geographical Society</i>
<i>PS</i>	<i>Peasant Studies</i>
<i>QJA</i>	<i>Quarterly Journal of Administration</i>
<i>QJE</i>	<i>Quarterly Journal of Economics</i>
<i>ROAPE</i>	<i>Review of African Political Economy</i>
<i>SaD</i>	<i>Savings and Development</i>
<i>SCID</i>	<i>Studies in Comparative International Development</i>
SAR	Staff Appraisal Report
<i>TA</i>	<i>Tropical Agriculture</i>

<b>WBER</b>	<i>World Bank Economic Review</i>
<b>WBRO</b>	<i>World Bank Research Observer</i>
<b>WC</b>	<i>World Crops</i>
<b>WD</b>	<i>World Development</i>
<b>WP</b>	<i>World Politics</i>
<b>WNMB</b>	Western Nigeria Marketing Board
<b>WRN</b>	Western Region of Nigeria
<b>WSN</b>	Western State of Nigeria



**Map 1: Ondo State in the 1980s**

Source: ODS, *Demographic and Health Survey, 1986* (Akure, 1989), p. xviii.



**Map 2: Ondo State's Main Roads in the 1980s**

Adapted from: Francis S. Idachaba, *Rural Infrastructures in Nigeria* (Ibadan, 1985).

# Chapter 1

## Introduction

### 1.1 The Problem

This thesis examines continuity and change in state activism in agriculture and rural development in southwestern Nigeria since 1945. Specifically, the study analyzes attempts by the Nigerian state to actualize global 'post-war initiatives [to make] machines rather than the skills of the small-holder...the cutting edge of agricultural change.'<sup>1</sup> Rural development has been conceived in this context as interventions by the state, or by international development agencies acting through the state's machinery, to increase capital-labour ratios on small farms and expand market-based exchange relations in rural society as a whole.<sup>2</sup> Such interventions have been expected also to stimulate structural change in the wider economy on account of their linkage effect with urban as well as rural non-agrarian sectors, especially industry.<sup>3</sup>

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<sup>1</sup> Paul Richards, *Indigenous Agricultural Revolution* (1985), p. 13. Prominent examples of globally-sourced prescriptions for Nigerian agriculture and rural development include World Bank, *The Economic Development of Nigeria* (Baltimore, 1955), FAO, *Agricultural Development in Nigeria 1965-80* (Rome, 1966); and World Bank, *Nigeria: Options for Long-Term Development* (1974).

<sup>2</sup> Only a sample of the extensive literature could be cited here. On the concept and nature of rural development, see Raymond E. Dumett and Lawrence J. Brainard (eds.), *Problems of Rural Development* (Leiden, 1975); John M. Cohen, 'Integrated Rural Development: Clearing Out the Underbrush', *Sociologia Ruralis*, XX, 3 (1980), pp. 195-212; and Lars-Erik Birgegård, 'A Review of Experiences with Integrated Rural Development', *MPD*, IV, 1 (1988), pp. 4-27. For a historical account, see Vernon W. Ruttan, 'Integrated Rural Development: A Historical Perspective', *WD*, 12, 4 (1984), pp. 393-401. On programme design, see Uma Lele, *The Design of Rural Development* (1975), and Bruce F. Johnston and William C. Clark, *Redesigning Rural Development* (1982). For a critique and agenda, see Robert Chambers, *Rural Development* (1983) and Hans Gsänger, *The Future of Rural Development* (1993). For more radical commentaries, see the editors, 'Introduction', pp. 1-15 and Gavin Williams, 'The World Bank and the Peasant Problem', pp. 16-51 in Judith Heyer, Pepe Roberts, and G. Williams (eds.), *Rural Development in Tropical Africa* (1981). On Nigeria, see H. M. A. Onitiri, 'A Proposal for Nigerian Rural Development', *NJESS*, 8, 1 (1966), pp. 3-8; NES, *Rural Development in Nigeria* (Ibadan, 1973); and Dupe Olatunbosun, *Nigeria's Neglected Rural Majority* (Ibadan, 1975). Also G. Williams, 'Taking the Part of Peasants: Rural Development in Nigeria and Tanzania', in P. C. W. Gutkind and Immanuel Wallerstein (eds.), *The Political Economy of Contemporary Africa* (Beverly Hills, 2nd ed. 1985), pp. 144-180; G. Williams, 'The World Bank in Rural Nigeria, Revisited: A Review of the World Bank's *Nigeria: Agriculture Sector Review 1987*', *ROAPE*, 43 (1988), pp. 42-67; and A. Olanrewaju and Toyin Falola (eds.), *Rural Development Problems in Nigeria* (Aldershot, 1992). For comparative overview of experiences, see Diana Conyers, Paul Mosley and Dennis M. Warren (eds.), 'Integrated Rural Development Projects', Special Issue, *MPD*, IV, 1 (1988).

<sup>3</sup> For early role specification, see Bruce F. Johnston and John W. Mellor, 'The Role of Agriculture in Economic Development', *AER*, 51, 4 (1961); the editors, 'Introduction', pp. 1-5, William H. Nicholls,



The state is not conceived here in the most abstract sense as the hegemonic leviathan. As the available literature suggests clearly, attempts at institutionalised domination in Nigeria and elsewhere in sub-Saharan Africa have been feeble and largely unproductive. This is in part because 'the colonial state in Africa was in many respects alien; it did not grow from the soil but was built on the surface of indigenous society...';<sup>4</sup> in part because state-consolidation in colonial and post-colonial Africa has been oriented primarily towards the short-term;<sup>5</sup> and in part because of attendant state 'softness', the generalised weakness of the post-colonial state's institutions vis-a-vis indigenous society.<sup>6</sup> The state is thus conceived here in its disaggregated form, as a network of intricate power and

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'The Place of Agriculture in Economic Development', pp. 11-44, and editors, 'Some Aspects of the Process of Change in Agriculture', pp. 203-213 in Carl Eicher and Lawrence Witt (eds.), *Agriculture in Economic Development* (New York, 1964); cf. contributions in Herman M. Southworth and Bruce F. Johnston (eds.), *Agricultural Development and Economic Growth* (1967). For a review of the literature, see Bruce F. Johnston, 'Agriculture and Structural Transformation in Developing Countries: A Survey of Research', *JEL*, 3, 2 (1970), pp. 369-404. For an historical update to the 1970s, see the editors, 'Agricultural Development Ideas in Historical Perspective', in Carl K. Eicher and John M. Staaz (eds.), *Agricultural Development in the Third World* (Baltimore, 2nd ed. 1990), pp. 3-38. For comparative historical analysis, see Bruce F. Johnston, 'Agricultural Development and Economic Transformation: A Comparative Study of the Japanese Experience', *FRIS*, III, 3 (1962), pp. 223-276; and 'Agriculture and Economic Development: The Relevance of the Japanese Experience', *FRIS*, VI, 3 (1966), pp. 251-312.

<sup>4</sup> D. K. Fieldhouse, *Black Africa 1945-80* (1986), p. 55; cf. Peter Ekeh, *Colonialism and Social Structure* (Ibadan, 1983); Robert H. Jackson and Carl G. Rosberg, 'Why African States Persist: the Empirical and the Juridical in Statehood', *WP*, 35, 1 (1982), pp. 1-24; and Basil Davidson, *The Black Man's Burden* (1992).

<sup>5</sup> For a historical view of 'makeshift' policy responses in the economic realm, see Cyril Ehrlich, 'Building and Caretaking: Economic Policy in British Tropical Africa, 1810-1960', *EHR*, 2nd ser., XXVI, 4 (1973), pp. 649-667 and Anne Phillips, *The Enigma of Colonialism* (1989). See also James S. Scarritt and Shaheen Mozaffar, 'Change and Continuity in the British Colonial State in Africa: Integrating Theoretical Perspectives', in Edward S. Greenberg and Thomas F. Mayer (eds.), *Changes in the State* (1990), pp. 149-166. On the developmental impact of state power in the short-term, arbitrary sense and in the long-term, 'infrastructural' sense, see Richard Grabowski, 'The State and Economic Development', *SCID*, 29, 1 (1994), pp. 3-17.

<sup>6</sup> For divergent views on state softness, compare Donald Rothchild, 'Hegemony and State Softness: Some Variations in Elite Responses', in Zarki Ergas (ed.), *The African State in Transition* (Basingstoke, 1987), pp. 117-148; and Thomas Callaghy, 'The State as Lame Leviathan: The Patrimonial Administrative State in Africa', *ibid.*, pp. 87-116, with Robert Faton Jr., 'The State of African Studies and Studies of the African State: The Theoretical Softness of the "Soft State"', *JAAS*, XXIV, 3-4 (1989), pp. 170-187 and S. N. Sangmpam, 'Neither Soft nor Dead: The African State is Alive and Well', *ASR*, 36, 2 (1993), pp. 73-94. On the moral foundations of state weakness, see Peter Ekeh, 'Colonialism and the Two Publics in Africa: A Theoretical Statement', *CSSH*, 17, 1 (1975), pp. 91-112. For a survey of the literature, see John Lonsdale, 'States and Social Processes in Africa: A Historiographical Survey', *ASR*, 24, 2/3 (1981), pp. 139-225. For more recent work, see Jean-François Bayart, *The State in Africa* (1993). On Nigeria's experience, see Richard Joseph, 'Class, State and Prebendal Politics in Nigeria', *JCCP*, 21, 3 (1983), pp. 21-38.

influence relationships between state agencies and institutions on the one hand, and between these agencies and social groups and interests on the other.<sup>7</sup>

Such relationships often involve conflict and cooperation between all concerned parties, and could facilitate or hinder government's as well as society's development objectives. For example, state agencies or their representatives are almost always engaged 'in the management of tension between...organisational certainty and operational flexibility', in bargaining over the distribution between departments and/or programmes of state revenue, and in debates on policy objectives and/or strategies.<sup>8</sup> Bhaduri has also remarked that 'contradiction and not harmony is the basis of agrarian change...Policies for agrarian reforms intended to produce...structural transformation [from backward agriculture]...have to create disjunction and sharper contradiction between forced commerce and productive accumulation' while promoting interaction between agrarian classes and interests.<sup>9</sup> Relations between state and society thus reflect a mix of conflict and cooperation, with the balance varying between societies and between historical epochs in the same society. Whatever this might be, 'conflicts and contradictions within society are never fully resolved';<sup>10</sup> social structures also 'tend to be redefined and added to and patched as seems expedient, rather than cleanly superseded.'<sup>11</sup>

The project approach has compounded the cycle of institutional renewal and decay in many important respects. In the 1950s and 1960s, development projects were regarded as

...privileged particles of the development process...that, however small, still evoke direct involvement by high, usually the highest, political authorities...a special kind of

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<sup>7</sup> Sangmpam, 'Neither Soft', p. 84; Otwin Marenin, 'The Managerial State in Africa: A Conflict Coalition Perspective', in Ergas, *African State*, note 2, p. 79; Ralph Miliband, *The State in Capitalist Society* (1969), pp. 46ff.

<sup>8</sup> Scarritt and Mozaffar, 'Change', p. 161.

<sup>9</sup> Amit Bhaduri, *The Economic Structure of Backward Agriculture* (1983), p. 139.

<sup>10</sup> Scarritt and Mozaffar, 'Change', p. 152.

<sup>11</sup> Lonsdale, 'States', p. 141.

investment [that] connotes purposefulness, some minimum size, a specific location, the introduction of something new, and the expectation that a sequence of further development moves will be set in motion.<sup>12</sup>

Hirschman is correct on the political significance of projects but betrays the excessive expectations of the 1960s in respect of other project attributes.<sup>13</sup> Criticism of the project approach has intensified since the advent in the 1970s of integrated rural development (IRD) projects. The project approach, it is now widely agreed, has neither strengthened nor replaced established government departments and societal institutions, including markets. On the contrary, development projects have been associated with ‘temporary artificial working conditions’ which have ‘create[d] jealousies that later undermine[d] project implementation...and support[ed] the view that nothing can be done within the [existing] system.’<sup>14</sup> Explanations for the failure of expectations are not hard to seek. According to Cernea,

...projects concentrate resources on selected priorities, focus on circumscribed geographic areas, and can address specific population groups and constraints on development. Projects can also be intensive social laboratories that use an innovative approach on a limited scale to gain experience for larger-scale efforts. [But] projects are only segmented units of intervention; they often bypass overall structures, develop atypically...tend to create enclaves, siphon resources from parallel non-project activities, and may not generate sustainable development beyond their limited time frame...[T]he sudden, large infusion of external resources into a rural society reverses the natural processes by which resources for development are internally created and gradually accumulated, commensurate with the inherent capability of the socioeconomic structure to generate, absorb, and use surplus.<sup>15</sup>

Economy or sector-wide instruments have been no less problematic. Hence, development practice has been alternating between sectoral programmes and projects in a ‘never-

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<sup>12</sup> Albert Hirschman, *Development Projects Observed* (Washington, 2nd ed. 1995), p. 1.

<sup>13</sup> Cf. K. D. S. Baldwin, *The Niger Agricultural Project* (Oxford, 1957).

<sup>14</sup> George Honadle and Jay Rosengard, ‘Putting ‘Projectized’ Development in Perspective’, *PAAD*, 3, 4 (1983), p. 301; cf. Eric Clayton, *Agriculture, Poverty and Freedom in Developing Countries* (1983), chp. 9.

<sup>15</sup> Editor, ‘Sociological Knowledge for Development Projects’, in Michael Cernea (ed.), *Putting People First* (New York, 1991), p. 4; p. 6.

ending process of constructing models [of solutions] and discarding them'.<sup>16</sup> State agencies have also had to cultivate the support of relevant social groups both for the legitimacy of the agencies as well as their outputs, and in order to facilitate the institutionalisation of socio-economic and political relations encapsulated in the state system.<sup>17</sup> Continuity and change in state policy and action thus reflect the 'mobilisation of bias'<sup>18</sup> in favour of a mixture of political and economic priorities in each historical conjuncture. State efforts may then be conceived not as a series of spectacular successes (in respect of say, class formation) *or* eminent failures (e.g. to 'capture' the peasantry);<sup>19</sup> rather a complex mix of successes *and* failures on different points on a continuum of objectives which also change over time.

The present study covers nearly five decades from 1945 to 1992. This period is long enough to suggest historical patterns in state-agrarian relations; both 1945 and 1992 also have added significance in the present context. The year 1945 marked the beginning of the end of formal colonialism in Nigeria, stimulating a political transition that resulted in expanded nationalist influence on policy and culminated in formal independence in 1960. 1945 also corresponds roughly with the advent of state-led development generally and specific policy structures and processes to be explored here. By 1992, Nigeria had experimented with both state-led development and market-inclined structural adjustment programmes. Although ADPs straddle both strategies, all three have produced mixed results in Western Nigeria. The choice of 1992 as terminal date offers an opportunity to comment on the political-economic significance of all three strategies in the context of a historical perspective on agricultural change in post-colonial Western Nigeria.

This study shall analyze post-colonial state action to increase total factor productivity and

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<sup>16</sup> Alexander Gerschenkron, *Economic Backwardness in Historical Perspective* (New York, 1965), p. 32.

<sup>17</sup> On public policies as instruments of legitimation in Nigeria, see Jonathan Zwingina, *Capitalist Development in an African Economy* (Ibadan, 1992).

<sup>18</sup> Peter Bachrach and Morton Baratz, 'The Two Faces of Power', *APSR*, 56, 4 (1962); Murray Rothbard, *Power and Market* (California, 1970), chp. 2.

<sup>19</sup> Goran Hyden, *Beyond Ujamaa in Tanzania* (1980).

induce structural change by involving small-scale farmers more closely and irreversibly in capitalist-inclined production and accumulation. Its general thrust is the increasing involvement of local urban interests and international agencies, especially the World Bank and global agribusiness, in the setting of the agrarian agenda in post-1945 Nigeria. But the analysis emphasises the internal policy and social dimensions of the urban-rural influence process without losing sight of its ultimately global roots. The study's immediate empirical referent, therefore, is the Ekiti-Akoko Agricultural Development Project (EAADP), a food production project inaugurated in five local government areas in northern Ondo State (i.e. Ekiti Central, Ekiti East, Ekiti North, Akoko North and Akoko South LGAs) in 1981 with substantial World Bank support (see map 1 on p. xvi). The operations of the Ondo State Agricultural Development Project (ODSADEP), Ekiti-Akoko's state-wide successor inaugurated in 1989, are also examined.

My choice of case study can be justified easily. Ekiti-Akoko is probably the least remarked in the academic literature on Nigeria's enclave agricultural development projects (ADPs).<sup>20</sup> I have found only two published articles on the project. Mordi analyses EAADP's organisational structure in the context of a wider discussion on corporate strategies in Nigeria's rural development agencies.<sup>21</sup> In turn, Fasoranti offers an empirical review of the project's production and commercial goals and outcomes.<sup>22</sup> Fasoranti's analysis was slightly superficial, however, because he asked leading questions from respondents. For example,

[i]n response to [the] question "Do you *always* seek expert advice before the commencement of *every* agricultural season?"...178 [or 89%] of the [200] respondents *showed* that they sought expert advice before [the] planting season. The remaining 11%

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<sup>20</sup> Other enclave ADPs and their start-up dates are: Funtua (Kaduna State, 1975); Gusau (Sokoto, 1975); Gombe (Bauchi, 1975); Ayangba (Benue, 1978); Lafia (Plateau, 1979); Bida (Niger, 1979); Ilorin (Kwara, 1980); and Oyo North (Oyo, 1981). Federal Department of Rural Development, 'A Decade of ADPs: Ten Years of Progress' (Lagos, 1986).

<sup>21</sup> Olajumoke Mordi, 'Organisation of ADP Management in Nigeria: Ekiti-Akoko ADP Case Study', in A. O. Sanda (ed.), *Corporate Strategy for Agricultural and Rural Development in Nigeria* (Ibadan, 1988), pp. 89-95.

<sup>22</sup> O. O. Fasoranti, 'Agriculture and Rural Development: Lessons from the Ekiti-Akoko Agricultural Development Project (ADP) Experience', in S. A. Olomola and A. C. Nwosu (eds.), *Rural Development Strategies in Nigeria* (Lagos?, 1992), pp. 81-96.

used their initiative to cultivate the inputs bought from the ADP. *All* the respondents signified that they *always* looked for innovation in terms of better yielding varieties and farming techniques from *the* ADP...[All] respondents had witnessed some demonstration projects. They described the [demonstration] projects as "very efficient" and "very innovative" [my italics].<sup>23</sup>

Fasoranti's inferences are clearly untypical of Nigeria's ADPs and too hagiographic as a depiction of the transition process in rural Ondo State. The challenge, however, is to attempt a more realistic appraisal of small-farmer responses to EAADP's programmes.

Two unpublished essays by Elebute and Arabi are also known to me. Elebute explores the project's socio-economic impact in a single local government area.<sup>24</sup> Arabi surveyed cropping patterns among 60 respondents from all parts of the Ekiti-Akoko area.<sup>25</sup> All respondents were however selected by the project's extension agents, perhaps because the author was a senior extension officer at the time. While this raises questions about the representativeness of Arabi's findings, the overall usefulness of his essay and others is not thereby diminished. These studies however amount to a small body of academic sources on a project designed to affect 100,000 farming families directly and indirectly and worth US \$32.5 million in costs and investment, including World Bank credit. It is necessary, therefore, to evaluate EAADP's operations in relation to its own goals and the wider developmental needs of its beneficiaries and host community.

The seeming lack of research interest in EAADP is no less significant in a historical-comparative sense. The quantity and perhaps analytical depth of the literature on EAADP contrasts sharply and unfavourably with that on ADPs located in northern Nigeria. Like Ekiti-Akoko, for example, Funtua, Lafia, and Kano ADPs were implemented in the 1970s and the 1980s. Unlike EAADP, however, all three have been researched by well-

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<sup>23</sup> *Ibid.*, p. 90.

<sup>24</sup> Adebayo Elebute, 'The Socio-Economic Impact of Ekiti-Akoko Agricultural Project in Ekiti North Local Government Area of Ondo State', B.Sc Honours Essay, Department of Geography, University of Ilorin (1985).

<sup>25</sup> Rufus Arabi, 'Cropping Practices of Farmers in the Ekiti-Akoko ADP Area, Ondo State, Nigeria', M.Sc Dissertation, Department of Agronomy, University of Ibadan (1985).

known scholars or been the subject of doctoral dissertations.<sup>26</sup>

Ekiti-Akoko ADP's nondescript position in the academic literature also illustrates the near-total reversal of Western Nigeria's preeminence in policy and research on Nigerian agriculture prior to the oil boom. For example, Nigeria's first botanical garden was established near Lagos in 1887.<sup>27</sup> Six years later, in 1893, a Department of Botanical Research was instituted with headquarters in Olokemeji, also in Western Nigeria.<sup>28</sup> Both agencies provided institutional bases for research and extension in colonial agriculture and forestry. They also served as forerunners of what became a research station at Moor Plantation, Ibadan in 1905 and ultimately, Southern Nigeria's Department of Agriculture, established in 1910 and merged with its northern counterpart in 1922, when Nigeria's first Director of Agriculture was appointed.<sup>29</sup>

The historical literature suggests clearly that Yoruba farmers had responded with enthusiasm to new food-crops and associated practices obtained through northern trade

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<sup>26</sup> Doctoral theses include R. A. Dunmoye, 'The State and the Peasantry: The Politics of Integrated Rural Development Projects in Nigeria', University of Toronto, Canada (1986); D. L. Eyoh, 'State, Capital and Agrarian Transformation in Nigeria: Politics and Production in Lafia', University of York, Canada (1989); and Maikudi Karaye, 'Hausa Peasants and Capitalism: A Case Study of Rural and Agricultural Development in Kano State in Nigeria', University of Wisconsin-Madison (1990). Journal articles include Brian C. D'Silva and M. Rafique Raza, 'Integrated Rural Development in Nigeria: The Funtua Project', *FP*, 5, 4 (1980), pp. 282-297; idem, 'Equity Considerations in Planning and Implementing Rural Development Projects in Nigeria: An Evaluation of the Funtua Project', in Bruce L. Greenshields and M. A. Bellamy (eds.), *Rural Development* (Aldershot, 1983), pp. 101-106; Akin L. Mabogunje, 'The Funtua Integrated Rural Development Project', in R. P. Misra (ed.), *Rural Development* (New Delhi, 1981), pp. 175-273; and McDonald P. Benjamin, 'Nigeria- Funtua Agricultural Development Project', in idem, *Investment Projects in Agriculture* (1985), pp. 178-216. On Lafia ADP, see Eyoh, 'Structures of Intermediation and Change in African Agriculture: A Nigerian Case Study', *ASR*, 35, 1 (1992), pp. 17-39; and 'Reforming Peasant Production in Africa: Power and Technological Change in Two Nigerian Villages', *DaC*, 23, 2 (1992), pp. 37-66. See also three contributions in Uzo Igbozurike and R. Raza (eds.), *Rural Nigeria* (Ilorin, 1983) viz: A. J. Adejo, 'The Impact of Agricultural Development Projects on Quality of Life in Rural Areas', pp. 193-203; J. A. Ukoje and J. M. Baba, 'The Impact of the Ayangba Agricultural Development Project on the Quality of Rural Life', pp. 204-251; and S. G. Nwoko and A. F. Mabawonku, 'Welfare Indicators for Farmers in Lafia Agricultural Development Project Area', pp. 252-260. For a general analysis, see Dunmoye, 'The Political Economy of Agrarian Production in Nigeria: State, Capital, and the Peasantry', *PS*, 16, 2 (1989), pp. 87-105.

<sup>27</sup> R. E. Dennett, 'Agricultural Progress in Nigeria', *JAS*, XVIII, LXXII (1919), pp. 266-289.

<sup>28</sup> S. K. T. Williams, *Rural Development in Nigeria* (Ile-Ife, 1978), p. 95.

<sup>29</sup> *Ibid.*, pp. 75-76.

routes and subsequent contact with Europe through the coast since c.1450s.<sup>30</sup> Berry has described how Yoruba peasants had adapted existing practices on land, labour and credit or created new institutions to establish cocoa farms in the Ife and Ondo areas between the 1870s and the 1930s.<sup>31</sup> Cocoa cultivation became a significant agricultural activity in Ondo area in the 1920s and has since remained the most economically valuable agricultural enterprise in rural Western Nigeria. By locking Yoruba peasants firmly onto the global market, cocoa-growing unlocked a 'vent for surplus' that was to be realised subsequently through 'a more intensive application of labour reserves to the land'.<sup>32</sup> Along with other export crops, cocoa-induced commerce generated effective demand for locally produced and imported goods and an expanded fiscal base for the colonial administration in the 1930s and 1940s.<sup>33</sup> But cocoa-growing has also created conditions that have turned present-day Ondo State into a food-deficit area since the 1930s to this day.<sup>34</sup>

In the 1950s and 1960s, Western Nigeria provided institutional and strategic leadership on state-led development.<sup>35</sup> It was in fact the first region to publish an agricultural policy in 1952<sup>36</sup> and a 'White Paper on Integrated Rural Development' one decade later.<sup>37</sup> In between, the 'cocoa barons of the West' provided necessary evidence of the

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<sup>30</sup> S. A. Agboola, 'Agricultural Changes in Western Nigeria 1850-1910', in I. A. Akinjogbin and S. O. Osoba (eds.), *Topics in Nigerian Economic and Social History* (Ile-Ife, 1980), pp. 128-145.

<sup>31</sup> Sara Berry, *Cocoa, Custom and Socio-Economic Change in Rural Western Nigeria* (Oxford, 1975).

<sup>32</sup> Anthony Hopkins, 'Economic Aspects of Political Movements in Nigeria and in the Gold Coast', *JAH*, VII, I (1966), p. 134. For a qualified critique of vent for surplus with respect to cocoa farming, see Sara Berry, 'Cocoa and Economic Development in Western Nigeria', in Carl Eicher (ed.), *The Growth and Development of Nigeria's Economy* (East Lansing, 1970), pp. 16-29.

<sup>33</sup> G. K. Helleiner, *Peasant Agriculture, Government, and Economic Growth in Nigeria* (Homewood, 1966), p. 557.

<sup>34</sup> *Annual Report on the Southern Provinces of Nigeria for the Year 1927* (Lagos, 1928), p. 52; C. Rowling, *Report on Land Tenure in Ondo Province* (Lagos, 1952), p. 72.

<sup>35</sup> O. Teriba, 'Development Strategy, Investment Decision, and Expenditure Patterns of a Public Development Institution: the Case of Western Nigeria Development Corporation, 1949-1962', *NJESS*, 8, 2 (1966), pp. 235-258.

<sup>36</sup> *Agricultural Policy for the Western Region, Nigeria* (Ibadan, 1952).

<sup>37</sup> *Official Document N<sup>o</sup> 8 of 1963* (Ibadan, 1963).



presumed correlation between export-crop production and economic well-being at the household level.<sup>38</sup> This ‘mutual benefit’ view of export agriculture was supported by the World Bank.<sup>39</sup> Western Region’s ambitious land settlement<sup>40</sup> scheme also became the reference point for other regions.<sup>41</sup>

Similarly, the reform of marketing boards by the federal government in the early 1970s leaned heavily on Western State’s experience,<sup>42</sup> not least because cocoa producers were taxed more heavily than other export-crop growers to fund government’s urban-based development in the 1950s and the 1960s.<sup>43</sup> Finally, and not surprisingly, rural Western Nigeria provided the context for the *Àgbèkòyà* (literally ‘farmers reject hardship’) riots in the late 1960s,<sup>44</sup> as yet post-colonial Nigeria’s most violent expression of peasant resentment at state ‘interference with their efforts to accumulate and exclusion from state-controlled resources and opportunities outside the agricultural economy.’<sup>45</sup> In short, Western Nigeria was nearly a microcosm of all the possibilities of state-led change in a

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<sup>38</sup> Douglas Rimmer, ‘Development in Nigeria: An Overview’, in Henry Bienen and V. P. Diejomaoh (eds.), *The Political Economy of Income Distribution in Nigeria* (New York, 1981), p. 39. For an economic survey of cocoa farmers’ incomes, see R. Galletti, K. D. S. Baldwin and I. O. Dina, *Nigerian Cocoa Farmers* (1956), chp. 12.

<sup>39</sup> World Bank, *The Economic Development of Nigeria* (Baltimore, 1955).

<sup>40</sup> WRN, ‘Future Policy of the Ministry of Agriculture and Natural Resources’, *Sessional Paper N<sup>o</sup> 9 of 1959* (Ibadan, 1959).

<sup>41</sup> Jerome Wells, *Agricultural Policy and Economic Growth in Nigeria 1962-68* (Ibadan: OUP, 1974), p. 244; cf. Mordechai E. Kreinin, ‘The Introduction of Israel’s Land Settlement Plan to Nigeria’, *JFE*, 45, 3 (1963), pp. 535-546; Oladejo Okediji, ‘Some Socio-Cultural Problems in the Western Nigeria Land Settlement Scheme: A Case Study’, *NJESS*, 7, 3 (1965), pp. 301-310; Dupe Olatunbosun, ‘Western Nigeria Farm Settlements: An Appraisal’, *JDA*, 5, 3 (1971), pp. 417-428.

<sup>42</sup> H. M. Onitiri and Dupe Olatunbosun (eds.), *The Marketing Board System* (Ibadan, 1974).

<sup>43</sup> G. K. Helleiner, ‘The Fiscal Role of Marketing Boards in Nigeria’s Economic Development’, *EcJ*, LXXIV, 295 (1964), pp. 582-610; cf. Robert Bates, *Markets and States in Tropical Africa* (Berkeley, 1981), pp. 138-145, for updated figures.

<sup>44</sup> Christopher Beer, *The Politics of Peasant Groups in Western Nigeria* (Ibadan, 1975); Gavin Williams and Beer, ‘The Politics of the Ibadan Peasantry’, in Williams (ed.), *Nigeria: Economy and Society* (1976), pp. 135-158.

<sup>45</sup> Sara Berry, ‘Oil and the Disappearing Peasantry: Accumulation, Differentiation, and Underdevelopment in Western Nigeria’, in Michael Watts (ed.), *State, Oil and Agriculture in Nigeria* (Berkeley, 1987), p. 206.

peasant setting up to the 1960s.

Yet, the economic literature on rural Western Nigeria has lacked explicit state or political focus. Research on rural Western Nigeria has been dominated by economic historians and agricultural economists, or by social scientists inclined to ignore or assume away the significance of the state's infrastructural power in economic change. Olatunbosun's book, *Nigeria's Neglected Rural Majority*, was a partial exception, as an agricultural economist's account written amidst development economics' crisis of identity in the 1970s: hence its somewhat populist inclination. Economic historians of Western Nigeria have shown even less explicit interest in the *reasons of state*. This is because market frameworks were believed to reflect day-to-day rural livelihoods more usefully than non-market approaches,<sup>46</sup> and because the expansion of export-crop production in the late 19th century was achieved through autonomous action by peasants, religious and communal associations.<sup>47</sup> The early colonial state in turn held the ring between 'the "invisible" hand of the market...the peasantry...merchant capital and a network of agents and buyers.'<sup>48</sup> Its role has been conceived, therefore, in largely minimal or *spectator* terms.

The state emerged as a *manager* of economic interests in the 1920s, partly in response to worsening market conditions and the Depression. But this was a precursor to the 1950s and 1960s, when scholars and development agencies helped design government programmes to encourage capital investment and skills acquisition and to support or subsidise local entrepreneurs in order to promote economic growth, create employment opportunities in urban centres, and check urban-rural migration. This had given rise to

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<sup>46</sup> A. G. Hopkins, *An Economic History of West Africa* (1973), p. 5; 'Comment', *AEH*, 2 (1976), pp. 81-83; and 'African Economic History: the First Twenty-Five Years', *JAH*, 30, 1 (1989), pp. 160-162. Cf. R. O. Ekundare, *An Economic History of Nigeria 1860-1960* (1973) and Paul Collier, 'Africa and the Study of Economics', in Robert Bates, V. Y. Mudimbe, and Jean O'Barr (eds.), *Africa and the Disciplines* (1993), pp. 73-74.

<sup>47</sup> Sara Berry, 'Christianity and the Rise of Cocoa-Growing in Ibadan and Ondo', *JHSN*, IV, 3 (1968), pp. 439-451.

<sup>48</sup> Tom Forrest, 'Agricultural Policies in Nigeria, 1900-78', in Heyer, Roberts and Williams, *Rural Development*, p. 223.

the *state-as-entrepreneur* with a finger in every major economic pie. The apparent visibility of the new post-colonial regime and cocoa-induced welfare spending by the regional government had also encouraged Western Nigeria's general public to associate big government with economic prosperity. Yet, the view of state agencies as 'purveyors of welfare and engineers of development'<sup>49</sup> had been mistaken, for it assumed that the 'benevolent social guardian' will 'selflessly seek the welfare of the people, even when the people themselves did not know what was in their self-interest, and would unerringly and effortlessly know how to achieve their best interests.'<sup>50</sup> Economic development had also been conceived in the Western Nigeria literature as state-led *or* market-based rather than as different *and* shifting combinations of both.<sup>51</sup>

Since the 1970s, academic interest in rural Western Nigeria has shifted to the analysis of federal policy initiatives and institutions and/or expanded on existing research on the export sub-sector. The former comprise mimeographs, articles in journals and in edited volumes, details of which are not necessary here.<sup>52</sup> Relevant examples of the latter include Clarke's dissertation on the impact of expanded commercial production in Okeigbo, near Ondo,<sup>53</sup> and Deustch's on the origins of state-controlled cocoa

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<sup>49</sup> Rimmer, 'Development', p. 41.

<sup>50</sup> Anne Krueger, *Political Economy of Policy Reform in Developing Countries* (1993), p. 55.

<sup>51</sup> An early critique of the state's economic role in West Africa is Peter Bauer, *West African Trade* (Cambridge, 1954). On contradictions and complementarities in state-market relations, see Mrinal Data-Chaudhuri, 'Market Failure and Government Failure', *JEP*, 4, 3 (1990), pp. 25-39; cf. Shehu Yahaya, 'State Intervention versus the Market: A Review of the Debate', *AD*, XVI, 3/4 (1991), pp. 55-74; John Toye, *Dilemmas of Development* (Oxford, 2nd ed. 1994); and contributions in C. Colclough and James Manor (eds.), *States or Markets?* (Oxford, 1991).

<sup>52</sup> To cite but few examples: S. O. Olayide et. al., *Quantitative Analysis of Food Requirements, Supplies and Demands in Nigeria, 1968-1985* (Lagos, 1972); S. Olayide, J. Eweka, and V. Bello-Osagie (eds.), *Nigerian Small Farmers* (Ibadan, 1980); Adeniyi Osuntogun and Olufemi Oludimu, 'Extending Agricultural Credit through Public Institutions in Nigeria: A Comparative Study of the Ondo State Agricultural Credit Corporation and the Ogun State Agricultural Development Corporation', *OAS*, X (1981), pp. 85-97; Olu Omopariola, 'Financing Agricultural Development: A Case Study of the Ondo State Agricultural Credit Corporation', in Sanda, *Corporate Strategy*, pp. 97-108; O. A. Famoriyo and P. B. Imoudu, 'A Critical Evaluation of Agricultural Credit Financing in Nigeria', *ARMFB*, 1 (1988), pp. 37-53; and M. A. O. Oladokun and A. G. Daramola, 'Nigerian Cocoa Development Programme: A Comparative Efficiency of Fund Utilisation', *SaD*, XIV, 2 (1990), pp. 175-184.

<sup>53</sup> Robert J. Clarke, 'Agricultural Production in a Rural Yoruba Community', Ph.D thesis, University of London (1979). Clarke's views are expressed also in 'Agricultural Production'; and 'Some Problems in

marketing.<sup>54</sup> The single major publication on agrarian change in Western Nigeria since the 1970s has been Berry's second book, *Fathers Work for their Sons*.<sup>55</sup> This is, however, concerned more with the relative lack of peasant reproduction among cocoa-growing Yoruba families in Ife and Osun areas and with Yoruba peasants' attempts to diversify their accumulation strategies outside agriculture than with state activism in rural society. *Fathers Work for Their Sons* therefore reinforced the existing research focus on export crops and their impact on the national or regional economy directly and indirectly, without offering an explicit evaluation of the food-crop sub-sector.

Indeed, research on Western Nigeria's food-crop economies has been less remarkable than, and in some cases ancillary to, research on export crops. Galletti's survey examined food production by Yoruba farmers as part of the analysis of the economic environment of cocoa-farming.<sup>56</sup> Güsten emphasised output and trade in foodstuffs in all parts of Western Nigeria but was less concerned with small-farmer production conditions or their specific responses to capitalist agriculture as such.<sup>57</sup> Bamisaye, a political scientist, has highlighted some of these issues but implied, mistakenly, that the state has confronted rural society as an undifferentiated entity and *vice versa*.<sup>58</sup> Bamisaye's predominantly macro-societal focus has also ignored the politics of food production at the local level. A slightly different kind of study is Atte's analysis of the social-cultural context of

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the Conceptualization of Non-Capitalist Relations of Production', *Critique of Anthropology*, 2, 8 (1977); 'Peasantization and Landholding: A Nigerian Case Study', in Martin A. Klein (ed.), *Peasants in Africa* (1980), pp. 177-219; and 'Households and the Political Economy of Small-Scale Cash Crop Production in SW Nigeria', *Africa*, 51, 4 (1981), pp. 807-823.

<sup>54</sup> Jan-Georg Deutsch, 'Educating the Middlemen: A Political and Economic History of Statutory Cocoa Marketing in Nigeria', Ph.D thesis, University of London (1991).

<sup>55</sup> (Berkeley, 1984).

<sup>56</sup> Galletti, Baldwin and Dina, *Cocoa Farmers*.

<sup>57</sup> Rolf Güsten, *Studies in the Staple Food Economy of Western Nigeria* (München, 1968).

<sup>58</sup> Olajire Bamisaye, 'The State and Agricultural Policy in Nigeria with particular reference to the Second Republic', *Odu*, New ser., 26 (1984), pp. 44-67; 'An Evaluation of the Operation Feed the Nation Policy in Nigeria', *NJESS*, 27, 1 (1985), pp. 75-95; and 'The Crisis of Green Revolution Programme in Nigeria: The Need for a Rural Development Policy' in Ajibade Ogunjumo *et al.* (eds.), *Nigeria's Economic Recovery* (Ile-Ife, 1988), pp. 12-27.

decision-making by food-farmers in northern Yoruba country.<sup>59</sup> Atte's study area, Kabba, in present-day Kogi State, is outside the cocoa belt, but his material illuminates the thinking of Yoruba food farmers generally, highlighting the social origins of some key problems associated with state food production initiatives.

Shifts in the research agenda on rural Western Nigeria could be attributed to two main factors. The primary reason concerns changes in the locus of institutional control over agricultural policy in Nigeria after 1966.<sup>60</sup> Unlike in the 1950s and 1960s when the proverbial regional tail wagged the federal dog, Nigeria's federal bureaucracy had by the 1970s assumed a dominant position in agricultural policy initiation and implementation. This shift had been facilitated by a variety of political and economic factors, including the collapse of commodity markets in the 1960s; difficulties with Nigeria's post-independence constitutional settlement and the advent of military rule in 1966; the emergence of food shortages in urban centres, attendant strategic shift from export to food crops, and federal government-controlled oil-based expenditure on ADPs, irrigation schemes and large-scale farms from the mid-1970s.<sup>61</sup> These developments, and military rulers' preference for 'tidy', administrative solutions, had in effect strengthened the federal government's policy-making role and made compliant partners of state governments.<sup>62</sup> In particular, ADPs' blueprint origins and uniform structures have reinforced existing tendencies in Nigeria for centralized policy and structural design as well as funding. Since research agendas almost always reflect policy shifts and funding agencies' priorities,<sup>63</sup> it is not surprising that more research attention has been channelled to federal government institutions since the 1970s.

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<sup>59</sup> D. O. Atte, 'Resources and Decisions: Peasant Farmer Agricultural Management and its Relevance to Rural Development Planning in Kwara State, Nigeria', Ph.D thesis, University of London (1980).

<sup>60</sup> F. S. Idachaba, 'State-Federal Relations in Nigerian Agriculture', *MADIA Discussion Paper 8* (Washington, 1989).

<sup>61</sup> Robert Shenton, 'Nigerian Agriculture in Historical Perspective', in Watts, *State*, pp. 34-57.

<sup>62</sup> Sam E. Oyovbaire, *Federalism in Nigeria* (1985), pp. 231-232.

<sup>63</sup> G. Williams, 'Ideologies and Strategies for Rural Development: A Critique', in his *State and Society in Nigeria* (Idanre, 1980), p. 145; originally published as 'Rural Underdevelopment', in E. O. Akeredolu-Ale (ed.), *Social Development in Nigeria* (Ibadan, 1977), pp. 251-275.

The second reason for the shifts in research focus on rural Western Nigeria is analytical and specifically relevant to EAADP. This is that northern Nigeria-based material and perspectives have dominated political-economic research on Nigerian agriculture since the 1970s.<sup>64</sup> For example, Watts' important collection, *State, Oil, and Agriculture in Nigeria*, falls short of depicting small-farmer responses to oil-induced expenditure on large-scale farming in post-1975 Nigeria. In one sense, this merely reflects the distribution of ADPs between northern and southern Nigeria. The north's flatter terrain and lower tree densities are more conducive to large-scale mechanized farming of the ADP variety and provided appropriate ecology for Nigeria's pilot ADPs. By 1981, seven of nine ADPs that were either operational or ready for start-up were based in the north.

However, these ecological and statistical considerations have encouraged a selective bias in agrarian analysis in post-1970 Nigeria. In particular, the discourse on Nigeria's ADPs has reflected the north's productive resource profile and encouraged a determinate view of state-peasant relations. To be sure, Northern Nigeria's 'feudal' traditions have informed colonial state-building strategies<sup>65</sup> and have featured in attempts since the 1950s to expand or consolidate Nigeria's post-colonial state system.<sup>66</sup> The same traditions have also narrowed access to farmland by northern Nigeria's peasants and blended with the centralising tendencies of Nigeria's agricultural development strategy since the 1970s.<sup>67</sup> The problem, however, is that comparatively little is known about how ADPs have performed in southwestern Nigeria, where relatively flexible rules of access to farmland<sup>68</sup> have promoted greater peasant manoeuvring and made state-peasant

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<sup>64</sup> Editor, 'Introduction', in Watts, *State*, p. 22.

<sup>65</sup> (Lord) Frederick Lugard's views on indirect rule are published in *Lugard and the Amalgamation of Nigeria*, compiled and introduced by A. H. M. Kirk-Greene (1968). For comparative experiences on land, see Sara Berry, 'Hegemony on a Shoestring: Indirect Rule and Access to Agricultural Land', *Africa*, 62, 3 (1992), pp. 327-355.

<sup>66</sup> Paul Francis, '"For the Use and Common Benefit of all Nigerians": Consequences of the 1978 Land Nationalisation', *Africa*, 54, 3 (1984), pp. 3-28.

<sup>67</sup> See relevant contributions in Michael Mortimore et. al. (eds.), *Perspectives on Land Administration and Development in Northern Nigeria* (Kano, 1986); cf. Bjorn Beckman, 'The World Bank and the Nigerian Peasantry: An Outline', mimeo (1981).

<sup>68</sup> For an early account, see Cyril Punch, 'Land Tenure and Inheritance in Yoruba', in H. Ling Roth, *Great Benin* (1903), pp. xxi-xxiv. See also Rowling, *Land Tenure*; P. C. Lloyd, 'Some Problems of

relations more inconclusive and less predictable.<sup>69</sup> Very little has also been said on the political economy of food-crop farming in southwestern Nigeria since the 1970s, or specifically, about how Yoruba farmers have reacted to oil-based spending on food-crop production projects. Even less empirical research has been done on small-farmer strategies and choices in Western Nigeria's food-crop sub-sector in the 1980s, by which time scholars had come to regard the post-colonial African state as an *obstacle* to agricultural growth and economic development.<sup>70</sup>

The present study evaluates EAADP and ODSADEP's programmes in the context of the wider debate on state-peasant relations in Nigeria generally and of food-crop production *in* cocoa-growing Western Nigeria in particular. What is attempted, therefore, is *not* project analysis in the conventional sense of that term.<sup>71</sup> This is not to suggest that the strictly economic approach to project evaluation, which compares 'the situation *with* the investment and that *without* it...by deducting the flow of costs and benefits without investment from the flow representing the situation with investment',<sup>72</sup> is less useful in itself. Nor is it to question the legitimacy of expectations of profit, by the World Bank or by other investors, from capital invested in peasant agriculture. It is to suggest, however, that strictly economic considerations relate more to the capital invested than to projects themselves or to their social and technical objectives. As analytical tools, efficiency and turnover ratios as well as internal rates of return may help to provide

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Tenancy in Yoruba Land Tenure', *African Studies*, XII, 3 (1953), pp. 93-103; R. O. Adegboye, 'Farm Tenancy in Western Nigeria', *NJESS*, 8, 3 (1966), pp. 441-453; and Segun Famoriyo, 'Principles of Rural Tenure Systems in Nigeria', *NGJ*, 20, 1 (1977), 45-58. On the problems of creating and sustaining private property in land, see Clarke, 'Peasantization'; and Francis, 'Land Nationalization', pp. 17-24.

<sup>69</sup> Sara Berry, 'Inconclusive Encounters: Farmers and States in the Era of Planned Development', in her *No Condition is Permanent* (1993), pp. 43-66.

<sup>70</sup> Michael Watts and Thomas Bassett, 'Crises and Change in African Agriculture: A Comparative Study of the Ivory Coast and Nigeria', *ASR*, 28, 4 (1985), p. 4. For a review of the wider literature, see Richard C. Cook, 'Farmers and the State', in Douglas Rimmer (ed.), *Rural Transformation in Tropical Africa* (1988), pp. 116-139.

<sup>71</sup> On which see Lyn Squire, 'Project Evaluation in Theory and Practice', in H. Chenery and T. N. Srinivasan (eds.), *Handbook of Development Economics*, Vol. II (North-Holland, 1989), pp. 1093-1137.

<sup>72</sup> Christopher Willoughby, 'Ex post Project Evaluation- the Bank's Experience', *FaD*, 14, 1 (1977), p. 29. Emphases in original.

statistical justification for the investment decision, and perhaps some assurance of the security of the investment.

However, conventional project analysts have often assumed, perhaps unwittingly, that project financiers' values, or the values encapsulated in respective projects, are widely shared in host communities; or alternatively, that value aspirations in host communities would change early enough to make cost-benefit projections realistic.<sup>73</sup> The economic analysis of projects thus says nothing about the difficulties occasioned by the introduction of new technologies to rural communities. Nor could it fully grasp the social nature and implications of the adoption of new technologies in small-scale, cash-poor farms.<sup>74</sup> Observers have therefore questioned the methodology as well as relevance to developing countries of standard project analysis.<sup>75</sup> In Nigeria, where a tradition of 'planning without facts' and macro-economic instability has given rise to generally unreliable - and in some cases irreconcilable - official statistics, and the widespread perception of government data as poor indicators of reality, the use of statistical projections based on shadow pricing or other improvised data must be doubtful indeed.<sup>76</sup>

Above all, agricultural change in a peasant society invariably involves value change, a phenomenon which cannot be measured or portrayed adequately by monetary profit or efficiency ratios.<sup>77</sup> Agricultural development policies must distinguish between the

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<sup>73</sup> Hirschman, *Development Projects*, chp. 5.

<sup>74</sup> Peter E. Hildebrand and Edgar G. Luna, 'Unforeseen Consequences of Introducing New Technologies in Traditional Agriculture', in Hildebrand (ed.), *Perspectives on Farming Systems Research and Extension* (Boulder, 1986), pp. 69-74.

<sup>75</sup> Compare Uma Lele, *Design*, p. 129; Cheryl Payer, *The World Bank* (New York, 1982), pp. 77-81; and Ronald E. Nelson, 'Review of *Project Appraisal and Planning for Developing Countries* by I. M. D. Little and J. A. Mirrlees', *JDA*, 9, 2 (1975), pp. 282-284.

<sup>76</sup> Wolfgang Stolper, *Planning Without Facts* (Cambridge, 1966); Paul Mosley, 'Policy-Making Without Facts: A Note on the Assessment of Structural Adjustment Policies in Nigeria, 1986-1990', *AA*, 91 (1992), pp. 227-240. On the wider question of disciplinary relevance, see S. Tomori, 'The Relevance of Economic Science to Nigerian Economic Development', *NJESS*, 21, 1-3 (1979), pp. 33-56. Cf. Polly Hill, 'A Plea for Indigenous Economics: The West African Example', *EDCC*, 15, 1 (1966), pp. 10-20; and *Development Economics on Trial* (Cambridge, 1986).

<sup>77</sup> These points have been made with respect to the Philippines in James Frideres et. al., 'From Peasants to Capitalists', *CDJ*, 28, 2 (1993), pp. 129-140.



private and social benefits of technical change and emphasise the latter initially. As Ruthenberg has observed,

...development policies [must] aim explicitly at activating peasants, mobilizing all existing resources, and creating and introducing technical progress. A development policy that is solely directed at high direct returns to investment misjudges the role of agriculture in the development process. The main task lies in the introduction of technical progress into existing agricultural production systems, in the implementation of institutional reforms, and thereby in the mobilization of existing performance reserves. The ultimate aim must be to reduce the discrepancy between the obsolete traditional forms of production being followed and the more productive ones now available.<sup>78</sup>

Ruthenberg's description of traditional farming is slightly debatable, but this is immaterial now. Suffice it to say that it is unrealistic for public agencies responsible for promoting agricultural development in peasant societies to seek economic returns and technological change simultaneously.

My concern, then, is a political-economic analysis of how Nigeria's state system has so far encouraged *and*, perhaps unwittingly, discouraged increased production and productivity in small-scale agriculture by putting 'one foot on the accelerator and one foot on the brake.'<sup>79</sup> It is assumed that 'the arena of social relations, rather than the availability or non-availability of technological breakthroughs...' constitutes the most profitable approach to the analysis of 'the speed and nature of the transition'<sup>80</sup> to commercial agriculture in post-1945 Nigeria. The study examines policy shifts between export and food crops since the 1920s and 1930s, re-focuses attention on Yoruba peasants' resource circumstances and changing responses to capital-intensive production, assesses the impact on agriculture of Nigeria's macro-economic and political circumstances in the 1980s, and ascertains how all these affected, and were affected by, EAADP and ODSADEP's operations. I also emphasise the interface between project objectives and outcomes in order to account for the socio-technical constraints beneath

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<sup>78</sup> Hans Ruthenberg, *Innovation Policy for Small Farmers in the Tropics*, ed. Hans Jahnke (Oxford, 1985), p. 3.

<sup>79</sup> Odin Knushen et al., 'Redefining the Role of Government in Agriculture for the 1990s', *World Bank Discussion Paper N° 105* (Washington, 1990), p. 3.

<sup>80</sup> John Sender and Sheila Smith, *Poverty, Class, and Gender in Rural Africa* (1990), p. 75.

the ‘satanic gap between cup and lip’<sup>81</sup> at policy and farm levels. Finally, I stress how these wider constraints have fed on the state’s management capacity, and on its ‘ability to penetrate society and interact in a *productive* manner with interest groups’<sup>82</sup> in the context of the transition. But first, an outline of Ondo State’s political economy.

## 1.2 Introduction to Ondo State

Ondo Province<sup>83</sup> was formally proclaimed on 1 January 1914, the same day the Southern and Northern Provinces were amalgamated, and Nigeria became a single colony under British rule. The province was a component unit of Western Nigeria until April 1976, when it became one of three new states (the others being Oyo and Ogun) carved out of the Western State. The province has often been remarked for the variety of its ecology, climate and agricultural potential. For example,

Ondo is unique amongst the Southern Provinces in that it extends from the sea-board to the boundary between the northern and southern administrations...Stretching thus from the sea some 140 miles into the interior, [the province] possesses a variety of climate, vegetation, and cultivation. For forty miles from the coast, the ground is mainly swamp intersected by numerous creeks, with small villages on every available piece of dry land. Rain forest covers the succeeding twenty mile belt from the northern side of which rise the precipitous hills and ridges of the Ekiti and Akoko countries.<sup>84</sup>

Ondo State occupies some 21,000 sq. kilometres or 2% of Nigeria’s land mass. By 1929, the province comprised four divisions, namely Ekiti, which included Akure, the present capital; Ondo; Owo; and Okitipupa.

According to the 1963 census, Ondo State had an estimated population of 2.77 million, about 27% of Western Nigeria’s population. This figure was expected to double by 1992,<sup>85</sup> but preliminary returns from the 1991 census have suggested a lower figure of

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<sup>81</sup> Niyi Osundare, ‘The Ogunbiyi Phenomenon’, *Newswatch* (Lagos), 9 March 1992, p. 38.

<sup>82</sup> Grabowski, ‘State’, p. 4. Emphasis added.

<sup>83</sup> Ondo Province has retained its essential socio-spatial attributes in spite of changes in boundaries and nomenclature over the years. Hence, province and state will be used interchangeably in this study.

<sup>84</sup> *Annual Report on the Southern Provinces of Nigeria for the Year 1927* (Lagos, 1928). p. 48.

<sup>85</sup> National Population Bureau, ‘Mid-Year Population Projections by States, 1963-2000’, mimeo (Lagos,

3.8 million. The population was and is predominantly Yoruba, with about 82% speaking the Yoruba language in 1931. Of the balance, 7.5% were Edo, 1.5% Ijaw, while another 7.5% was unclassified.<sup>86</sup> Today, about three-quarters of the state's population are probably united by the Yoruba language, even though dialectical differences, some of which have been traced to links with Benin and Oyo historical traditions, exist among and within the major groups.<sup>87</sup> On balance, Ondo has been and probably remains one of the most ethnically homogenous states in Nigeria. It is also predominantly rural, with four-fifths of the estimated population living in communities of 5,000 inhabitants and below in 1963. By 1975, an estimated 79% of the province's rural population earned a living directly from agriculture,<sup>88</sup> though actual figures are likely to be higher.

Ondo State and its people are widely associated with four main political-economic issues. These are a liking for the Fabian variety of big government that prevailed under Obafemi Awolowo's premiership in Western Region during the 1950s; a generalised desire for formal education; cocoa production; and recurrent food shortages. These attributes are not necessarily peculiar to Ondo State. Forrest has suggested, for example, that perceptions of the expansive state are largely positive in Western Nigeria.<sup>89</sup> Sara Berry has also linked the quest for formal education or training outside agriculture by cocoa farmers' offspring with the generalised desire for social mobility and with diversified accumulation strategies among the Yoruba peasantry.<sup>90</sup> Finally, cocoa has been the dominant export crop in Western Nigeria since the turn of the century; the shift of productive resources, especially land and labour, from food production cannot be unique

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1984).

<sup>86</sup> H. B. Cox, *Census of Nigeria, 1931 Vol. III* (1932).

<sup>87</sup> M. A. Oguntuyi, *History of Ekiti: From the Beginning to 1939* (1979); S. A. Akintoye, 'The North-Eastern Yoruba Districts and the Benin Kingdom', *JHSN*, IV, 4 (1969), pp. 539-553.

<sup>88</sup> WSN, *Report of Agricultural Survey in the Western State of Nigeria 1975* (Ibadan, 1976), Table 3, p. 3.

<sup>89</sup> Tom Forrest, *The Advance of African Capital* (Edinburgh, 1994).

<sup>90</sup> Berry, *Fathers*.

to Ondo State.<sup>91</sup> But Ondo is likely to have betrayed the more negative connotations of these attributes than other parts of Western Nigeria.

The Yoruba inclination for big government is expressed, perhaps, in their characterization by Ken Post as 'the most politically active citizens' in Nigeria during the 1950s.<sup>92</sup> The people of Ondo State have sustained that inclination well into the 1990s. In all general elections held between 1952 and 1993, Ondo State's voting public have consistently returned large bloc votes for Obafemi Awolowo (1909-1987), veteran nationalist politician and leader of the Action Group (AG) Party (1948-66) as well as the Unity Party of Nigeria (UPN) in 1978-83, or for his political proxies.<sup>93</sup> Ondo has indeed been described as a 'captive' state where 'the general public did not bother to separate the person of Papa [Awolowo] from that of the Unity Party of Nigeria...[and]...had prejudged everything UPN as perfect because it carried the tag of Awo.'<sup>94</sup> Electoral contests have been won and lost in Ondo State, therefore, not so much because of candidates' personal credibility or social standing but because they had been adopted or disowned, severally or jointly, by *Awo's* political machine.<sup>95</sup>

Awolowo's cult image is intimately linked with the apparently insatiable quest for formal education in Ondo State. For members of the state's general public, especially those who participated in the cocoa economy of the 1950s and 1960s, Western Region has known socio-economic prosperity and development only under *Awo*. As a result of the AG party government's free primary education programme, instituted in 1955, primary school enrolment in the region rose by 78% to 811,432 in 1956 and doubled to 1.04 million in 1958.<sup>96</sup> Post-primary (modern) school enrolment also increased by 600% in two years

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<sup>91</sup> Memorandum 2758/DA/6A of 16 May 1938, CSO/26/4/34277, NAI, p. 2.

<sup>92</sup> K. W. J. Post, *Nigerian Federal Election of 1959* (Oxford, 1963), p. 353.

<sup>93</sup> Dudley, *Introduction*, pp. 211- 219.

<sup>94</sup> S. T. Labode, UPN's senior accountant, calls this the 'Awolowo Connection' in his *Party Power* (Abeokuta, 1988), p. 16.

<sup>95</sup> Awolowo's political life and times are examined in O. Oyelaran *et. al.* (eds.), *Obafemi Awolowo* (Ile-Ife, 1988).

<sup>96</sup> Data in this paragraph are extracted from *Western Nigeria Development Plan 1962-68* (Ibadan, 1962),

to 30,602 in 1957 and peaked at 75,138 in 1960. Between 1978 and 1983, Awolowo and the UPN once again made free education a national political issue. As expected, the UPN won a decisive majority of votes in Ondo State, with its candidate winning the governorship in 1979 and 1983.<sup>97</sup>

A large proportion of the education programme's beneficiaries in Ondo State were offspring of small-scale farmers. Many of them have since occupied key public and private sector positions in Nigeria and elsewhere, and would have been less fulfilled, if at all, without the free primary education programme. However, their remarkable individual gains have been attained at great social cost, for the free education programme has been associated with a variety of backwash effects, including shortfalls in the supply of auxiliary farm labour; labour migration to urban centres; low-level peasant reproduction, and above all, the decline in Western Nigeria's agricultural economy.<sup>98</sup>

Ondo State has been a major cocoa-producing area since the 1950s, about three decades after cocoa-growing became an important agricultural activity in the area. As I show later, Ondo accounted for between one-fifth and half of Western Nigeria's cocoa crop in 1955-70, a remarkable contribution not matched by state-led development in the area. However, cocoa-growing has been more profitable in the forest areas of Ondo State than in the savanna areas to the north-east. Several decades of policy and research bias has also reinforced the mistaken view that identifies the entire state, rather than parts of it, with cocoa-growing, shifting attention away from food-crop production and from recurrent food shortages. In fact, Ondo Province has been a food-deficit area since the 1930s,<sup>99</sup> the people depending on yams imported from Nigeria's middle-belt states to obtain *Iyán* (pounded yam), their traditional staple, once the harvest season is over.<sup>100</sup>

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Appendix I, p. 65.

<sup>97</sup> On voter behaviour in Nigeria, see Dudley, *Introduction*, pp. 211-222; and Oyeleye Oyediran, 'Voting Behaviour' in O. Oyediran (ed.), *The Nigerian 1979 Elections* (1981), pp. 93-110.

<sup>98</sup> Güsten, *Studies*, p. 23; Adekunle Folayan, *Agriculture and Economic Development in Nigeria* (New York, 1983), pp. 80-86.

<sup>99</sup> Reuben Udo, 'Food-Deficit Areas of Nigeria', *GR*, 61, 3 (1971), pp. 415-430.

<sup>100</sup> Güsten, *Studies*, p. 247; S. A. Olusuyi, 'Some Farmers' Problems that must be attended to before

### 1.3 The Ekiti-Akoko Project

In spite of variations in form and nomenclature, official response to Ondo's food situation, or similar cases elsewhere in post-colonial Nigeria, has been consistent in substance. This has been to seek increases in total factor productivity and promote access to the market through measures that encourage intensive methods of exploiting available resources, promote the adoption of more efficient inputs, and reduce transaction costs.<sup>101</sup>

Ekiti-Akoko ADP falls within the above framework and was designed to assist 100,000 farming families directly and indirectly over an initial five-year period from 1981. As an integrated rural development (IRD) project, EAADP sought to 'co-ordinate...the supply of inputs and services needed by the small farmer to achieve higher productivity'<sup>102</sup> with the provision of physical infrastructure to reduce the transaction costs of access to essential inputs, technical advice, and crop marketing.<sup>103</sup> Its underlying goal was to stimulate changes in the social and technical conditions of rural production through the standard strategy that emphasised farm and crop development, infrastructure development, and institutional support.<sup>104</sup>

Crop development, the defining programme component, was to be pursued by encouraging small-scale farmers to adopt high yielding variety (HYV) seeds, seedlings, or stem cuttings; simple labour-saving technology; and cultural practices like mono cropping and crop rotation. If farmers adopted these prescriptions and followed project advice faithfully, and other things remained equal, these changes were expected to issue in 'increased yields per unit of land area', increased returns to the farmer, and ultimately,

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Farmers can play their rightful Role in Economic Viability of Ondo State', in G. T. Fatunla (ed.), *Economic Viability of Ondo State* (Akure, 1984), p. 38.

<sup>101</sup> Forrest, 'Agricultural Policies'.

<sup>102</sup> A. A. Abdullah, 'Discussion' of M. Yudelman, 'The Role of Agriculture in Integrated Rural Development: The Experience of the World Bank', in T. Dams and K. E. Hunt (eds.), *Decision-Making and Agriculture* (1977), p. 460.

<sup>103</sup> Mabogunje, 'Funtua', p. 197.

<sup>104</sup> Karaye, 'Hausa Peasants', p. 106.

to 'induce crop substitution and increases in extent of area of crop cultivated.'<sup>105</sup>

Infrastructure development has been a soft target for IRD projects in Nigeria and elsewhere, primarily because results have been 'easier and quicker to achieve and more visible'<sup>106</sup> than in say, crop development. Ekiti-Akoko ADP was expected to provide essential physical infrastructure to facilitate production as well as the evacuation of the increased output from farm locations to market centres. Hence EAADP's infrastructure development programme included the building of thirty-five earthen dams as well as the construction and/or maintenance of a network of rural roads, culverts, and bridges.

Institutional support, the final element of the ADP strategy, expresses Ekiti-Akoko's underlying objectives most forcefully. Institutional support encompasses two project goals. The first was to transform more small-scale farmers in the project area into rural capitalists proper: by stimulating surplus production and increasing marketed output from small-farm production, and, hopefully, strengthening the profit motive in rural society.<sup>107</sup> The second goal concerns the introduction of economic fees for services provided by public sector agricultural agencies as a prelude to ultimate state withdrawal from the provision of basic facilities and services in agriculture. Both goals underscore the centrality of the market as the prime instrument of Bank involvement in small-scale agriculture as well as the strategic spearhead of what Feder called the World Bank's desire to achieve the 'self-liquidation of the third world peasantry'.<sup>108</sup>

Ekiti-Akoko ADP's quest for a market-led food sub-sector was not to be restricted to beneficiaries. On the contrary, it was to spearhead a far-reaching review of state policies on subsidies on farm inputs and credit. According to the Bank, subsidies paid by the

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<sup>105</sup> APMEPU, *Ekiti-Akoko ADP Completion Report*, Vol. I Main Report, p. 72.

<sup>106</sup> Diana Conyers and Dennis M. Warren, 'The Role of Integrated Rural Development Projects in Developing Local Institutional Capacity', *MPD*, IV, 1 (1988), p. 32.

<sup>107</sup> Cheryl Payer, *The World Bank* (New York, 1982), p. 220.

<sup>108</sup> Ernest Feder, 'The New World Bank Programme for the Self-Liquidation of the Third World Peasantry', *JPS*, 3, 3 (1976), pp. 343-354; cf. M. Yudelman, 'Agriculture in Integrated Rural Development: The Experience of the World Bank', *Food Policy*, 1, 5 (1976), pp. 367-81.

Nigerian state on fertilizer and other inputs had become remarkable for 'encouraging inefficient resource use, discouraging the development of farm support services by the private sector and straining Federal and State governments' fiscal and administrative resources.'<sup>109</sup> On available evidence, the Bank's position was valid, for subsidies accounted for between 75% and 100% of the economic value of major inputs in the 1970s. In 1976 alone, fertilizer subsidies cost the federal government some N23.7 million in current terms, rising by 187% to N68 million in 1982 and further to N2,000 million in 1990.<sup>110</sup> The uncertainties of the oil market in the 1980s, and their impact on public sector revenue in Nigeria, have clearly made blanket subsidies on farm inputs economically unsustainable.

The Bank thus expected EAADP to serve as stimulant as well as exemplar of state retreat, desubsidisation, and privatisation, attributes that became central to Nigeria's political economy during the late 1980s. The project was to stimulate private enterprise in the distribution and marketing of farm support services, it being expected that public agencies would withdraw gradually from active involvement in the procurement and marketing of major farm inputs and support services.<sup>111</sup> Project activities were also expected to become self-sustaining or at least break even after the five-year investment phase. It was anticipated, for example, that its poultry demonstration farms would reach economic maturity in 1985. Seed and grain processing, agricultural research stations, and training and information were to follow one year later, while extension services, workshops, monitoring and evaluation were to become profitable by 1988. Farm Service Centres were expected to become self-sustaining in 1988, while staff housing, the project's least commercially-oriented activity, would follow suit in 2005. Most of the costs deemed recoverable in the project plan were to be passed on to farmers.<sup>112</sup>

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<sup>109</sup> World Bank, *EAADP Staff Appraisal Report* (Washington, 1980), p. 5.

<sup>110</sup> G. O. Evbuomwan, 'A Review of the Federal Government Fertilizer Subsidy Scheme in Nigeria', *EFR*, 29, 3 (1991), p. 272.

<sup>111</sup> V. A. P. Naik, 'Commercial Services Division', in APMEPU, *Project Completion Report*, Vol. II, p. 36.

<sup>112</sup> Jens Christensen, *Ekiti-Akoko Agricultural Development Project Final Report* (Ikole-Ekiti, 1984), pp. 135-136.



It is all too easy to attribute the foregoing to the World Bank's blueprint approach to rural development, or to a state captive to pressure from the Bank or international agribusiness. As Dunmoye's otherwise brilliant attempt has shown, however, direct linkages between the Bank and developments in Nigerian agriculture are difficult to justify empirically.<sup>113</sup> The present study does not deny the importance of international influences on policy design and outcomes. But it locates EAADP and ODSADEP's fortunes in domestic socio-economic and institutional conditions, including the management capacity of the Nigerian state.

The argument is pursued at two main levels. First, the study links past and present in state agrarian action in post-colonial Nigeria, and draws from available accounts of the impact of IRD programmes generally to show that in theory and practice, EAADP's programmes ignored small farmers' socio-technical circumstances or at least suited middle peasants and businessmen-farmers more than small-scale producers.<sup>114</sup> If, as Watts has argued, the ADP strategy is 'an elaborate mechanism to redistribute oil rents through state patronage and to therefore cement critical class alliances within the state itself',<sup>115</sup> small-farmer production is likely to have been affected only marginally, if at all, because official credit and/or subsidies have been channelled to urban businessmen and/or middle peasants.<sup>116</sup> It is proposed, therefore, that small-scale farmers who *need* official assistance have been involved in official extension schemes only so far as new practices and techniques promoted by the schemes accorded with their own calculations of risk and profit. A related proposition is that some traditional farming techniques have been reinforced in spite (or because) of official extension programmes.

The study also explores the relationship 'between increased oil revenues, increased government spending on agriculture, and the crisis in [Nigerian] agriculture' with

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<sup>113</sup> Dunmoye, 'Political Economy'; E. E. Ekong, 'The Role of the World Bank in Nigerian Agricultural Policy', *AD*, XVII, 3 (1992), pp. 65-98.

<sup>114</sup> Cf. IBRD, *Accelerated Development in Sub-Saharan Africa* (Washington, 1981), p. 53.

<sup>115</sup> Michael Watts, *Silent Violence* (Berkeley, 1983), p. 491.

<sup>116</sup> Michael Lipton, 'Agricultural Research and Modern Plant Varieties in Sub-Saharan Africa: Generalisations, Realities and Conclusions', *JID*, 1, 1 (1989), p. 171.

particular reference to Ondo State.<sup>117</sup> It is argued that EAADP's operations amounted to a struggle with largely negative macro-economic developments in Nigeria during the 1980s. Specifically, EAADP's design was based on Nigeria's buoyant economic circumstances of the mid-1970s and could not be adjusted to worsening conditions in the 1980s. Like other enclave projects, EAADP's structures had been concluded with Nigeria's military administration, leaving civilian politicians with a bequest they would have loved to re-design but for the possible political costs. To project its own political identity and reward local supporters, the Ondo State Government (ODSG) promoted *opticom*s (i.e. optimal communities), an improved version of the 1960s farm settlement scheme. The implied competition between *opticom*s and EAADP easily left the latter with little financial or policy support by the state government. The analytical strategy therefore is to combine low level description and analysis of results published by the projects themselves or by other agencies with historical records as well as farmers' views on project-specific and wider issues regarding the nature and impact of state presence in rural Ondo State.

#### 1.4 A Note on Sources of Data

The data base for this study comprises primary and secondary sources. Major primary sources are archival material, village survey and interview data obtained during two field trips to Nigeria between November 1991 and July 1992, and September/October 1992. My search at the National Archives, Ibadan, related mainly to post-colonial files, correspondence, and reports of ministries, departments and extra-departmental bodies concerned with policy shifts between food and cocoa-growing, the organisation of production and farmers' groups. Unpublished material (especially theses) based at the Obafemi Awolowo University, Ile-Ife, the University of Ibadan, and the Federal University of Technology, Akure, were explored.

A questionnaire-based survey was conducted in Ayede and three neighbouring villages

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<sup>117</sup> Gavin Williams, 'Agriculture in Nigeria, 1979', in his *State and Society in Nigeria* (Ibadan, 1980), p. 158. Cf. H. Bienen, 'Oil Revenue and Policy Choice in Nigeria', *World Bank Staff Working Papers* No 592 (Washington, 1983); reprinted in his *Political Conflict and Economic Change in Nigeria* (1985), pp. 8-63.

in north-eastern Ondo State, within what was Ekiti-Akoko project area. Ayede was founded at the beginning of the nineteenth century by Esubiyi, a former soldier-slave who became prominent in the military campaigns of the time.<sup>118</sup> Ilafon and Imojo started as outposts of Ishan and Itaji respectively, older villages which also featured in the same campaigns.<sup>119</sup> Ayede had an estimated population of 13,300 in 1963, while Imojo and Ilafon's populations were estimated at 450 and 837 respectively.<sup>120</sup> Igede started as a government farm settlement in the late 1960s and had 22 settlers at some point.<sup>121</sup> Only two of the founding settlers were still resident by 1992, one year after Igede formally became a village with the appointment of a local settler as *Baale* (chief) by the local council.<sup>122</sup> In short, Ilafon and Imojo are small villages by present-day standards, but they do represent the long tradition of economic and political adaptation in northern Yoruba country. Ayede is less typical of settlements in the area by virtue of its recent and distinctive origins, while Igede has been at the cutting edge of modern farming, a shining example, as it were, of the problems and prospects of modern agriculture in a peasant society. The survey sample is therefore untypical of the project area, but the farmers' interviews (described below) indicate the range of responses from a variety of farmers in each village, and in Ayede, each *Àdúgbò* (precinct) and include richer, middle and poorer farmers. Together, all four villages present interesting historical and analytical possibilities well beyond the present study's immediate requirements.

My survey questions cover the whole range of activities engaged in by small-scale farmers. Information was elicited on respondents' social-technical conditions, cropping patterns, and access to credit as well as project and non-project extension. Respondents

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<sup>118</sup> Daniel May, 'Journey in the Yoruba and Nupe Countries in 1858', *JRGS*, 30 (1860), p. 225; A. C. C. Swayne, 'Intelligence Report on the Ayede District, Ekiti Division, Ondo Province', CSO 26/31014, NAI., p. 5.

<sup>119</sup> N. A. C. Weir, 'Intelligence Report on Itaji District, Ekiti Division, Ondo Province', CSO 26/29800, NAI., p. 2.

<sup>120</sup> Federal Census Office, 'Population of Nigeria: Combined National Figures, Vol III', (Lagos, 1963), pp. 31-55.

<sup>121</sup> ODS, *Digest of Agricultural Statistics, 1976* (Akure, n.d.), p. 35.

<sup>122</sup> Interview with the founding settlers, Amos Akinyemi and Julius Ayegbusi, 15 April 1992.

were also encouraged to express opinions on government programmes in agriculture and rural development and indicate those issues or problems on which they required assistance. Farmer interviews were conducted in the vernacular by me and two assistants while informal discussions were handled by me, in some cases in a mixture of vernacular and English. One of my research assistants was a university graduate while the other was a third-year undergraduate. Both were recruited partly because they knew the survey area very well (one had just completed an assignment as an enumeration officer in the 1991 census); were able to employ their contacts with traditional chiefs or prominent farmers in the villages to good advantage; and had no problems translating farmers' viewpoints to English and vice versa.

The questions (see Appendix) are similar to those in the baseline survey of the project area by Nigeria's Agricultural Projects Monitoring, Evaluation, and Planning Unit (APMEPU). This was to facilitate comparison between APMEPU's findings and my own smaller-scale survey returns and to enable me draw inferences with wider empirical bases. Unfortunately, ODSADEP's monitoring and evaluation unit had not processed its raw data by my last visit to Nigeria in October 1992. I hope to be able to explore this wider analytical lead in future.

Another constraint on the survey's outcome emerged from the refusal of interviews by many potential female respondents. Most of the women concerned admitted to having cultivated separate food farms; but they insisted, nonetheless, that their husbands or respective household heads would sufficiently represent their views. It is not clear if this was because all interviewers were male, or indeed whether the inclusion in the interview team of at least one female research assistant could have generated different responses from women. There were no religious reasons, however: muslims constitute probably less than 5% of the total population of the survey villages. The most probable reason was, therefore, cultural: gender-related considerations that males generally, and household heads in particular, could and should speak for the entire household on the one hand; and more widespread viewpoints discouraging the open discussion of personal socio-economic

attributes on the other.<sup>123</sup> As I shall show in chapter 2, the latter has been, and remains, a major consideration in the debate about the reliability of Nigeria's official censuses and surveys, including agricultural surveys.

The strategy adopted for the present study was to interview as many household heads or residents as cooperated in all cases. This yielded 164 respondents, comprising 92% male and only 8% female. Twenty-five respondents (or 15.2% of total) came from Ilafon, 18 (11%) from Imojo, and 13 (7.9%) from Igede. Ayede's 108 respondents (65.9% of the total) reflect its relative population in the area. The total number of formal respondents could have increased by 20-30% if women had agreed to be interviewed. Their refusal is likely to have weighed on responses concerning enterprise combinations, the use of wage labour, and access to extension. But it highlights continuing difficulties with conceptualisations of the household and the individual's place in it in rural Ondo State.<sup>124</sup>

Popular perceptions of the state as a distributor of welfare, to which reference has been made, were reflected in respondents' requests during the survey. At Ayede, one farmer insisted that his address be noted on the questionnaire. In his estimation, the survey heralded a probable distribution to farmers of free fertilizer or other inputs and it was only proper that his share was not diverted or hijacked by someone else. The issue of personal benefit to my survey respondents came up recurrently at Ilafon and Imojo, where respondents insisted that particular views be put on record, perhaps in the belief that such views could improve their chance of benefiting from pay-offs occasioned by, or deriving from, the survey.

The situation at Igede differed slightly. Unlike in other locations, respondents requested immediate assistance on the formation of a cooperative society in the village. I liaised with the local cooperative union and nearly succeeded in pulling off an exploratory

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<sup>123</sup> The socio-political origins of Nigeria's statistical problem are discussed in S. A. Aluko, 'How Many Nigerians: An Analysis of Nigeria's Census Problems, 1901-63', *JMAS*, 3, 3 (1965), pp. 371-392.

<sup>124</sup> See Eleanor Fapohunda, 'The Nuclear Household Model in Nigerian Public and Private Sector Policy: Colonial Legacy and Socio-Political Implications', *DaC*, 18, 2 (1987), pp. 281-294.

meeting with settlers. These requests most certainly resulted from a misconception of the research process and could have encouraged reaction formation by respondents, but they also indicate the lack of effective interest-articulation structures at the local level. I have endeavoured to control for reaction formation in two distinct ways. First, extensive informal discussions were held with farmers within and outside the project area to cross-check formal respondents' claims with wider experiences. Secondly, my field data have been reported and analyzed alongside existing government and/or independent information. Both measures have helped to prevent dramatic inferences being drawn on the bases of respondents' exaggerated claims.

Interviews with state functionaries, former and serving project officials, and officers of farmers' bodies constitute the final element of my primary sources. At the Ministry of Agriculture, my principal sources included a former Commissioner (i.e. political head), the Director of Agricultural Services who also served as EAADP's Project Manager after 1984, the Director of Produce Services, and Assistant Directors. At ODSADEP, I held formal and informal discussions with the directing staff at the Planning, Monitoring and Evaluation Unit, with the Chief Extension Officer, and the Chief Administrative Officer. I also spoke to a large number of intermediate and village-level extension officers at Akure and at two fortnightly meetings of extension staff at Owo and Ikole in early 1992. Issues discussed at these meetings included farmers' concerns about ODSADEP's packages, the administration of its programmes, career prospects for staff seconded to the project from the Ministry of Agriculture, and general staff welfare questions.

At the Cooperative Societies Division, I interviewed the Director of Cooperative Services, three Deputy Directors (including the Principal of the Training Institute), and three Assistant Directors. Relatively non-governmental perspectives were provided by sources in the Ondo State Cooperative Federation, the Cocoa Association of Nigeria, and the Ondo State Farmers' Congress. Among other things, these interviews have suggested interesting contrasts in official perceptions of operational and policy problems between agencies responsible for agriculture and rural development in Ondo State, but the details

are not explored in subsequent chapters.<sup>125</sup>

Three categories of official documents were consulted. The first comprised publications of international development institutions, especially the World Bank. Some of these examine the Bank's experiences across the board, while others focus on region or country-specific issues, or on regional differences within a single country like Nigeria. The second group comprised published and unpublished policy papers; internal memoranda; rural surveys, and evaluation reports issued by federal, regional, and state governments and/or agencies within Nigeria, as the case might be. These provided essential back-up for the analysis of historical and policy contexts in Part II of the study. Finally, specific reports and documents issued by the projects themselves, or by other agencies, provided a sharper focus on EAADP and ODSADEP's operations.

The third and final category of documents was crucial to the analysis, in part because most of the documents are not published in the strict sense of that word, in part because they addressed on-going issues yet to be assessed with the full benefit of hindsight, and above all because there are as yet no independent sources against which they could be cross-checked. Of course, the reliability of information obtained from project documents might be open to question. As noted above, however, this is also true of data published by most government or quasi-government agencies in Nigeria and elsewhere. But the research process affords a nearly indefinite opportunity for review; hence, it should be possible in future to compare project data analyzed in this study with wider information as and when they become available.

Finally, a wide range of secondary sources were consulted. These include published articles in journals and edited collections in UK-based libraries, especially the London School of Economics, School of African and Oriental Studies, the Institute of Commonwealth Studies, Birkbeck College, and the University of London's Senate House library. These were combined with published material collected during my fieldwork. The

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<sup>125</sup> See Olufemi A. Akinola, 'The Politics of Farmer Organisation in Ondo State, Southwestern Nigeria in the 1980s', paper presented at the International Conference on Cocoa and Economic Development in the 19th and 20th Centuries, London, September 1993.

scope of the secondary sources reflects research interest in rural Western Nigeria before the oil boom as well as the near-universal applicability of some of the questions addressed in the study. Information was obtained by manual and electronic methods in all cases. Quantitative and qualitative methods were also applied to all data, the particular mix in each case being a function of its nature and the question(s) being addressed.

## **1.5 Structure of the Thesis**

The rest of the study contains eight chapters organised in two parts. Part II comprises two background chapters while Part III examines project and policy outcomes in six chapters, including the conclusion. Each chapter discusses a specific analytical or empirical theme, introduces relevant historical research, and locates this study within the existing literature. This results in overlapping citations but makes for simpler structuring of the evidence as well as analysis.

Chapter 2 discusses 'late development' in Ondo State in terms of the cocoa-food imbalance and policy responses to it up to the 1970s. The chapter's argument is that Ondo's farmers have provided productive resources to urban centres both before and after formal colonialism, and that policy responses to the food-export crop imbalance had encouraged more of the same urban-inclined strategies. Chapter 3 evaluates the constitutive and regulative environment of World Bank presence in Ondo State in the 1980s.

Part III offers a detailed analysis of the outcomes of EAADP and ODSADEP's operations and of wider agricultural policy in Ondo State since the 1980s. Chapter 4 discusses infrastructure development, regarded variously as a prerequisite for rural development and as necessary justification for the 'integrated' nature of ADP programmes. Chapter 5 provides a detailed account of traditional, small-farmer agronomy in the Ekiti-Akoko area and highlights elements of syncretism between traditional and modern cultural practices. Chapter 6 examines agricultural extension in EAADP and ODSADEP against the background of 'competing rationality' between the projects and their beneficiaries. Chapter 7 assesses food-crop and livestock production and the poor response to EAADP's version of the seed-fertilizer revolution. Project-induced farm mechanisation, defined to



include simple labour-saving devices, is evaluated in chapter 8. In conclusion, chapter 9 discusses the implications of the study for policy and research on agriculture and rural development in Africa and beyond.

## Chapter 2

### The Commercial Transition and Cocoa-Food Imbalance in Western Nigeria, to the 1970s

#### 2.1 Introduction

This chapter discusses some of the intra-regional dimensions of the commercial transition in Western Nigeria from c.1870s to the 1970s. The commercial transition is conceived here not in terms of 'peasantization', the change from subsistence to market-based exchange.<sup>1</sup> The foundations of a peasant agricultural economy had been established in Yoruba country by the 1850s.<sup>2</sup> 'Internal exchange economies',<sup>3</sup> or markets limited as much by low-level functional specialisation as by the physical distance between towns and villages and the lack of vehicular transport, have existed for much longer, according to anthropological and missionary accounts.<sup>4</sup> The transition is conceived, therefore, in terms of the shift from production for internal exchange to production mainly for export, especially of farm produce with very little, if any, consumption value to the producing families.

Two main themes of the commercial transition have been emphasised in the literature on southwestern Nigeria. The first is the change from the slave mode of production to commodity production, a change prompted as much by the technical and cost advantages of small over large-scale oil-palm production as by aggressive British intervention in

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<sup>1</sup> For a theoretic-analytic framework, see Ken Post, "'Peasantization" and Rural Political Movements in Western Africa', *European Journal of Sociology*, XIII, 2 (1972), pp. 223-254.

<sup>2</sup> S. A. Agboola, 'Agricultural Changes in Western Nigeria 1850-1910', in I. A. Akinjogbin and S. O. Osoba (eds.), *Topics on Nigerian Economic and Social History* (Ile-Ife, 1980), pp. 131-132.

<sup>3</sup> Darryl Forde, 'The Native Economies', in Forde and R. Scott, *The Native Economies of Nigeria* (1946), p. 32.

<sup>4</sup> E.g., Daniel May, 'Journey in the Yoruba and Nupe Countries in 1858', *JRGS*, 30 (1860), p. 213; cf. Akin L. Mabogunje and M. B. Gleave, 'Changing Agricultural Landscape in Southern Nigeria: The Example of Egba Division, 1850-1950', *NGJ*, 7, 1 (1964), pp. 1-15. On the organisation of trade in the 19th century, see Toyin Falola, 'The Yoruba Caravan System of the Nineteenth Century', *IJAHS*, 24, 1 (1991), pp. 111-132.

Yoruba society from the 1880s.<sup>5</sup> As Clarke observed,

...the colonial invasion [of Yoruba country] seems to have been precipitated by a combination of military and commercial concerns. Merchants wished to maintain profit levels and reduce prices by removing what they regarded as illegitimate, politically imposed costs. The concern of the merchants was not so much with large scale slave production, but with the costs added after production by tolls and transport. They were concerned more to eliminate the toll-gate and the African middle-man than to encourage the development of a category of small-scale commodity producers.<sup>6</sup>

The second theme is the advent and growth of cocoa production, initially in Agege, near Lagos, and subsequently in Ibadan, Ife, Ilesha, and Ondo from the 1870s.<sup>7</sup> Unlike small-scale oil-palm production where farmers colonised wild palm trees scattered over Yoruba forests, cocoa farms had to be started from the scratch, requiring considerable social-institutional and strategic changes in the local economy.<sup>8</sup> According to Sara Berry,

[t]he establishment of a new cocoa farm requires the expenditure of resources on clearing land, planting young trees, and maintaining them for seven years or more before the farm yields enough to cover annual maintenance costs. Although little physical capital equipment is required for cocoa cultivation, the farmer must provide working capital—either to maintain himself and his dependants while they are establishing the farm, or to hire labourers. During the first two or three years food crops may be grown among the young cocoa trees, but once the canopy forms, the farm is too shady for food crops. Thus, for the latter part of the maturation period the farmer cannot even derive foodstuffs from the young cocoa farm, but must find alternative means to satisfy his subsistence requirements as well as other consumption needs. Moreover, in so far as labour must be bid away from alternative uses, the costs of employing it in cocoa cultivation are not

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<sup>5</sup> Compare A. G. Hopkins, 'Economic Imperialism in West Africa: Lagos, 1889-92', *EHR*, 2nd ser. XXI, 3 (1968), pp. 580-606; with J. F. A. Ajayi and R. A. Austen, 'Hopkins on Economic Imperialism in West Africa', *EHR*, 2nd ser., XXV, 3 (1972), pp. 303-306. For a recent and wider review of the literature, see Robin Law, 'The Historiography of the Commercial Transition in Nineteenth-Century West Africa', in Toyin Falola (ed.), *African Historiography* (1993), pp. 91-115.

<sup>6</sup> Robert J. Clarke, 'Agricultural Production in a Rural Yoruba Community', Ph.D thesis, University of London (1979), p. 91. On tolls in 19th century Yoruba trade, see Toyin Falola, 'The Yoruba Toll System: its Operation and Abolition', *JAH*, 30 (1989), pp. 69-88.

<sup>7</sup> Sara Berry, 'Christianity and the Rise of Cocoa-Growing in Ibadan and Ondo', *JHSN*, IV, 3 (1968), pp. 439-451; and *Cocoa, Customs, and Socio-Economic Change in Rural Western Nigeria* (Oxford, 1975), pp. 37-53.

<sup>8</sup> Sara Berry, 'The Concept of Innovation and the History of Cocoa Farming in Western Nigeria', *JAH*, XV, 1 (1974), pp. 83-95; A. G. Hopkins, 'Innovation in a Colonial Economy: African Origins of Nigerian Cocoa-Farming Industry, 1880-1920', in C. Dewey and Hopkins (eds.), *The Imperial Impact* (1978), pp. 83-96.

negligible.<sup>9</sup>

In short, cocoa-growing has been a veritable example of autonomous peasant response to external market opportunities. Historical and economic research has been nationally or regionally oriented, emphasising trade with the global market,<sup>10</sup> or at the local level, linkages between cocoa and economic affluence,<sup>11</sup> institutional adaptation,<sup>12</sup> and government finance.<sup>13</sup> In the 1930s and 1940s, cocoa provided ‘the cash income [that] was perhaps the most important source of demand for locally produced goods and services, and also for imported goods...’<sup>14</sup> The crop also accounted for between 23% and 47% of the regional government’s revenue and up to 61% of total finances in the 1950s and 1960s.<sup>15</sup> Eclipsed by the post-1945 self-defeating fiscal regime which culminated in the *Àgbékòyà* riots in the late 1960s<sup>16</sup> and by oil rents in the 1970s, cocoa’s income value has been restored since the advent in 1986 of structural adjustment policies.<sup>17</sup> Little wonder that cocoa is described locally in venerable terms as *Olójà gbogbo igi l’óko*, ‘the most chiefly of all trees’ or, more precisely, the most economically

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<sup>9</sup> Berry, *Cocoa*, p. 6.

<sup>10</sup> For example, R. O. Ekundare, *An Economic History of Nigeria 1860-1960* (1973).

<sup>11</sup> R. Galletti, K. D. S. Baldwin and I. O. Dina, *Nigerian Cocoa Farmers* (1956).

<sup>12</sup> Berry, *Cocoa*, chps. III and IV; summarised in ‘Migrant Farmers and Land Tenure in the Nigerian Cocoa Belt’, in Onigu Otite and Christine Okali (eds.), *Readings in Nigerian Rural Society and Rural Economy* (Ibadan, 1990), pp. 85-100; Clarke, ‘Agricultural Production’, chp. 5.

<sup>13</sup> G. K. Helleiner, ‘The Fiscal Role of Marketing Boards in Nigeria’s Economic Development’, *EcJ*, LXXIV, 295 (1964), pp. 582-610; H. M. Onitiri and Dupe Olatunbosun (eds.), *The Marketing Board System* (Ibadan, 1974).

<sup>14</sup> Jan-Georg Deutsch, ‘Educating the Middlemen: A Political and Economic History of Statutory Cocoa Marketing in Nigeria, 1936-1947’, Ph.D thesis, University of London (1991), pp. 15-16.

<sup>15</sup> O. Olakanpo and O. Teriba, ‘Fiscal, Monetary and Investment Implications of the Marketing Boards’, in Onitiri and Olatunbosun, *Marketing Board*, pp. 185-186.

<sup>16</sup> C. E. F. Beer, *The Politics of Peasant Groups in Western Nigeria* (Ibadan, 1976); Gavin Williams and Beer, ‘The Politics of the Ibadan Peasantry’, in Williams (ed.), *Nigeria: Economy and Society* (1976), pp. 135-158.

<sup>17</sup> Paul Dorosh and Bola Akanji, ‘Impacts of Exchange Rate Changes on the Cocoa-Food Crop Farming Systems of Southwest Nigeria’, mimeo (Ibadan, 1988); and Akanji, *Cocoa Marketing Under Nigeria’s Structural Adjustment Programme*, NISER Monograph Series N<sup>o</sup> 1 (1992).

valuable tree crop as yet.

The above has however encouraged a relative neglect of cocoa's backwash effects on food crop production, or on producing communities generally. As long-term investments, cocoa farms have tended to acquire a life-world of their own. Specifically, they have given rise to enduring and supra-individual social and institutional processes which have in turn diminished the scope of the individual's 'autonomous' choice, reduced the available options, or presented individuals with a *fait accompli*. Thus a short-term decline in farmers' terms of trade may not necessarily serve as a disincentive to increase the rate of new plantings or other investment on cocoa farms. To quote Berry again,

the rate of new cocoa plantings sometimes rose in periods of declining farmers' terms of trade. This happened both because farmers were able to mobilize resources for agricultural investment through non-market mechanisms, and also because cocoa trees have such a long life that relatively short-run changes in market conditions probably do not exert a decisive influence on farmers' expectations of lifetime earnings from cocoa farms.<sup>18</sup>

What follows examines the impact of cocoa-induced economic expectations on Western Nigeria's food economies up to the 1970s, focusing on Ondo State as part of the analytical specification of 'late development' in the state, and as a historical and policy backdrop to the advent of Ekiti-Akoko ADP. It is argued that 'the growing demand for money and the belief that no food grower can make as much as the cocoa farmer'<sup>19</sup> have since the 1930s turned Ondo State into one of Nigeria's 'rural districts that [have] depend[ed] on other rural districts for a considerable part of their basic food requirements'.<sup>20</sup> Two specific tasks are attempted. The first is to show how farmers in the state have sought 'quick returns' by allocating more land to cocoa than to food production. Such shift of resources, it is shown, has been more pronounced in Ekiti and Akoko areas, where a mixture of guinea and derived savanna conditions make land more

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<sup>18</sup> Berry, *Cocoa*, p. 204.

<sup>19</sup> Forde, 'Native Economies', p. 87.

<sup>20</sup> Reuben Udo, 'Food-Deficit Areas of Nigeria', *GR*, 61, 3 (1971), p. 415; Memorandum 2758/DA/6A of 16 May 1938, CSO/2614/34177, NAI, p. 2.

suitable for food farming, than in Ondo Division, with a forest vegetation most appropriate for cocoa cultivation. The second is to describe how, on the one hand, policy responses to the food-cocoa imbalance in the 1930s and 1940s were scuttled by in-fighting and inertia in the colonial agricultural bureaucracy; and on the other, how official support for cocoa-growing between the 1950s and the 1970s virtually precluded concern for food crops, setting the stage for Nigeria's food crisis of the 1980s.

Before proceeding, it is necessary to specify the nature and analytical implications of the evidence presented below. As noted previously, present-day Ondo State did not become a policy-making unit until 1976. Notwithstanding the steady increase in the local flavour of policy since the 1950s, the state had no direct control over policy for nearly all of the period covered by this chapter. The policy response of the 1930s and 1940s was formulated while colonial Nigeria was administered as two groups of provinces, north and south. In turn, policy initiatives of the 1950s and 1960s were those of the first indigenous government of post-colonial Western Region. As a result, food production policy had addressed Ondo State's specific circumstances less directly than it could presumably be. The urban inclination of policy in both cases was also unmistakable, an inclination that became more explicit in the wake of government-led development in the 1950s and 1960s.

One of the far-reaching effects of that inclination has been the lack of official interest in the food sub-sector. Unlike cocoa and other internationally tradeable crops, such as oil-palm, there has been a near-total absence of data on the size of the state's food crop output during and after the colonial period. Hence the data to be presented below relate more to cocoa than to food crops and in most cases to the 1930s and 1940s than to more recent times. The impact of cocoa-growing on food production, including food imports from neighbouring areas, shall be inferred - directly from data on cropped areas (and therefore labour use) up to the 1940s, and thereafter from relatively general survey data.

Finally, as indicated earlier, Nigerian government statistics lack general credibility. In particular, official farm size and output survey data are widely regarded as poor indicators of rural realities. This problem derives partly from a historically-determined

perception of the state in Nigeria as a predatory institution, and social surveys as essential elements of the state's tax and fiscal imperatives; and partly from deeper cultural controls on the disclosure of information about the individual's well-being, size of family, or number of offspring. In 1931, for example, a senior administrative officer 'of long experience in the Eastern Provinces' commented as follows:

[i]t is contrary to all usage to ask a man or woman to state the number of children born to them or the number of their livestock...There can be little doubt that for a man to give a truthful reply to such questions...is a challenge to Providence. The envious deities or spirits will hear the reply given and will seek to deprive those rash enough to boast of what is most precious to them.<sup>21</sup>

The above remarks could have been written about Western Nigeria, or any other part of Nigeria for that matter, in 1931 or perhaps now.<sup>22</sup> The point, however, is that they depict clearly prevailing attitudes to social-demographic inquiries, including social research surveys, explaining, at least in part, why Nigerians have often provided false responses to survey questions on farm size, output, income, etc. Government agencies have most probably adopted more rigorous field measurement and interview procedures since the 1950s, as Agboola has noted.<sup>23</sup> But complex tenurial arrangements have meant that the same cocoa farm (but not food farm) could be owned by more than one farmer - an indication of local perceptions of property rights in cocoa land.<sup>24</sup> Survey estimates have been shown also to include 'abandoned or immature [cocoa] acreage' or ignore cases where the same individual owned cocoa land in different villages.<sup>25</sup> Reaction formation among respondents, in the form of under or over-reporting of key variables (e.g. land holdings) according to individual expectations of advantage, including possible

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<sup>21</sup> 'Memorandum', attached as Appendix 1 to H. B. Cox, *Census of the Southern Provinces* (1932), p. 16.

<sup>22</sup> See, e.g., S. A. Aluko, 'How Many Nigerians: An Analysis of Nigeria's Census Problems, 1901-63', *JMAS*, 3, 3 (1965), pp. 371-392.

<sup>23</sup> S. A. Agboola, 'The Collection of Agricultural Statistics in Nigeria: The Example of the Agricultural Censuses, 1960-65', *NAJ*, 2, 2 (1965), pp. 53-60; and his *An Agricultural Atlas of Nigeria* (Oxford, 1979), pp. 1-6.

<sup>24</sup> Galletti, Baldwin and Dina, *Cocoa Farmers*, pp. 148-149.

<sup>25</sup> C. W. Rowling, *Report on Land Tenure in Ondo Province* (Lagos, 1952), p. 72.

tax uses of respective surveys, has not necessarily subsided. Above all, pressure has apparently mounted on officials to justify their positions by presenting to relevant publics evidence of 'progress' on their respective departmental functions. In short, the existence of multiple, irreconcilable agricultural data sets, to which Mosley referred most recently,<sup>26</sup> may well indicate the depth of the problem as much as civil servants' desire to get by. Hence, information from agricultural surveys, including those on export crops, need to be interpreted with utmost circumspection. The approach here shall be to indicate the limitations on each data set (or table) in so far as those limitations have a bearing on inferences from the data and on the general argument pursued here, namely, that Ondo State has depended on 'imported' foodstuff during the hungry season, in spite of its remarkable agrarian endowment.

The remainder of the chapter is divided into three main sections. Section two describes Ondo State's agrarian economy in some detail, examining the differential allocation of land, and by implication, labour, between cocoa and food production in the 1920s and 1930s. Section three examines how a presumably sincere attempt in the 1930s to redress the cocoa-food imbalance was overwhelmed by jurisdictional squabbles in Nigeria's colonial administration. Since government's romance with the fiscal benefits of cocoa cultivation in the 1950s and 1960s is well researched, section four only summarises elements of the anti-food bias in Western Nigeria's agricultural development schemes of that period. Finally, section five concludes the analysis.

## **2.2 Food or Cocoa? Agricultural Production Patterns**

Ondo State is a classic example of a peasant-dominated agrarian economy. According to the 1931 census, agriculture was the 'principal occupation' of 71% of the labour force, with an additional 1% making a living as pastoralists. Only one-fifth (19.4%) of the labour force was employed as craftsmen while 2.3% was engaged in trade and commerce.<sup>27</sup> With about 111,000 persons cultivating 580.3 square miles out of the

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<sup>26</sup> Paul Mosley, 'Policy-Making Without Facts: A Note on the Assessment of Structural Adjustment Policies in Nigeria, 1986-1990', *AA*, 91 (1992), pp. 227-240.

<sup>27</sup> H. B. Cox, *Census of Nigeria, 1931 Vol. III*, (1932), Table 9(1), p. 34.



province's 8,211 square miles of land, up to three-quarters of the working population was engaged on less than one-tenth of cultivable land in 1931. As recently as 1975, 79% of the state's rural population earned a living in agriculture while an estimated 28% of its total land area was farmed.<sup>28</sup>

Average holding per cultivator has been and remains small. The 1931 census data suggest 3.38 acres (1.4 ha.) per capita for the province, but this is likely to have been overstated. Subsequent surveys at regional and local levels have shown that farmers have often cultivated fragmented plots totalling between 0.40 ha. and 2.0 ha. each. According to a survey of tenurial practices conducted in 1965/66 through 1967/68, average holding per household stood at 1.1 acres (0.45 ha.) in Western State in 1965/66 and in 1966/67, declining to 1.0 acre (0.4 ha.) in 1967/68.<sup>29</sup> By 1980/81, about 89,000 farming households in Ondo State reported close to 150,000 farms totalling 74,000 ha. of cultivated land or 0.82 ha. per household. But the average number of farms per household declined slightly from two in 1965-68 to 1.66 in 1980/81.<sup>30</sup> These statistical inferences may or may not reflect changes in the scope of the surveys or their sample sizes, but they do suggest that average farm sizes have been small.

More specific data on Ondo State support the view that farm holdings have tended to be small and fragmented, and that farmland has averaged 1.0 ha. per capita. A survey of 360 farmers (fifteen in each of 24 villages) in Ondo State in 1976 suggest that only 1.2% of an estimated 256,000 food crop growers held between 2.0 ha. and 4.0 ha. on average. The corresponding figures were 7.1% and 10.5% for tree crop farmers and mixed crop growers respectively. Expressed in relation to the total estimated number of farmers, this means that only 3.5% of the state's farmers (n=349,000 in 1976) held 2.0 ha. and above either as sole or mixed crop growers. About half (47%) of the remaining farmers held

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<sup>28</sup> WSN, *Report of Agricultural Survey in the Western State of Nigeria 1975* (Ibadan, 1976), p. 3; p. 18.

<sup>29</sup> The surveys, conducted in 34 Western Nigerian villages, involved 1,020 households in 1965/66, 1,080 in 1966/67, and 540 in 1967/68. Nigeria, *Rural Economic Survey of Nigeria: Consolidated Report of the Land Tenure Inquiries, 1965/66, 1966/67 and 1967/68* (Lagos, 1972), p. 7.

<sup>30</sup> Nigeria, *Report of Rural Agricultural Sample Survey 1980/81* (Lagos, 1983), p. 20.

0.40-2.00 ha.; 32% held 0.20-0.40 ha., while 17% cultivated 0.2 ha. and below. Together, the estimated 349,000 farmers cultivated about 185,000 ha. or 0.53 ha. each in 1976.<sup>31</sup>

Many of these findings have been supported by a more extensive survey in 1978 of respondents from 48 villages, three from each of the state's 17 local government areas then existing.<sup>32</sup> A weighted distribution of farmers by farm size and crop patterns, computed from the 1978 survey returns, has suggested that the modal farm size has been between 0.4 ha. and 2.0 ha. per capita; that average holdings are likely to be larger among tree crop growers than among food crop producers; and above all, that the average farmer is more likely to be a mixed crop farmer than a sole crop producer (Table 2.1).

**Table 2.1**  
**Distribution of Ondo State's Farmers, 1978 (by Farm Size and Crop Pattern)**

Farm size (ha.)	N <sup>o</sup> of farmers	% distribution		
		Food crops only	Tree crops only	Mixed crops
Under 0.10	22,604	7.8	-	-
0.10 - 0.20	49,823	16.8	3.6	0.3
0.20 - 0.40	95,118	31.1	19.5	1.0
0.40 - 2.00	209,590	38.7	65.8	97.0
2.00 - 4.00	12,972	3.6	9.0	1.1
4.00 - 6.00	6,838	2.0	2.1	0.6
Total	396,945	100.0	100.0	100.0

Computed from: ODS, *Rural Economic Survey 1978* (Akure, n.d.), Table 5.

In fact, the state's farmers produce a variety of arable and tree crops but are better known to the outside world as cocoa-growers. Of the major food crops grown in the area, some varieties of yams are believed to be indigenous to West Africa.<sup>33</sup> In turn, maize is believed to have been introduced through contacts with the Portuguese from about the

<sup>31</sup> ODS, *Rural Economic Survey 1976* (Akure, n.d.), various tables.

<sup>32</sup> ODS, *Report on Rural Economic Survey 1978*, (Akure, n.d.), p. vi.

<sup>33</sup> S. A. Agboola, 'Patterns of Food Crop Production in South-Western Nigeria', *NGJ*, 11, 2 (1968), pp. 136-137; Mabogunje and Gleave, 'Agricultural Landscape', p. 5.

fifteenth century, while rice and cassava were added to the indigenous crop system in early or mid-nineteenth century.<sup>34</sup> Subsidiary crops like pepper, okra, and vegetables are also cultivated in varying intensities and combinations according to ecological conditions in different parts of the state.

Still, the most important food crop in the state has been yam, the main ingredient for making *Iyán* (pounded yam). In 1978, about three-quarters of the state's food crop farmers were engaged in yam cultivation; some 302,000 farmers (of all categories) also reported an estimated 82,450 ha. of land under yams (Table 2.2). By contrast, an estimated 99,500 ha. of cocoa was reported by 127,000 farmers in 1978. The figures suggest an average holding per farmer of 0.27 ha. for yams and 0.78 ha. for cocoa, and may very well reflect different production possibilities and economies of scale as of 1978. But they also point up one endemic legacy of the commercial transition in Ondo State, namely, the expansion of cocoa acreage at the expense of food production.

**Table 2.2**  
**Estimated Cropped Land per Farmer in Ondo State, 1978 (by Crop Type)**

Crops	N <sup>o</sup> of farmers <sup>a</sup>	Total cropped land (ha.)	Cropped land per farmer (ha.)
<b>Food Crops</b>			
Yam	301,890	82,444	0.27
Maize	178,510	39,634	0.22
Cassava	77,984	32,445	0.42
Rice	65,545	28,254	0.43
Cocoyam	59,966	17,890	0.30
<b>Cash crops</b>			
Cocoa	127,015	99,494	0.78
Oil Palm	3,933	2,473	0.63
Rubber	1,348	453	0.34
Kolanut	866	639	0.74
Coffee	736	328	0.45

Note: <sup>a</sup>Overlapping responses per farmer because of multiple cropping.

Source: *Ondo State Statistical Abstract 1978/79* (Akure, 1980), Tables 4.9 and 4.10.

Cocoa was introduced to Nigeria in the 1870s through Fernando Po, and experimented

<sup>34</sup> S. A. Agboola, 'The Introduction and Spread of Cassava in Western Nigeria', *NJESS*, 10, 3 (1968), pp. 369-385; and 'Agricultural Changes'.

with in Bonny and Onitsha in eastern Nigeria without success. It was introduced into Ondo Province through subsequent and more successful experiments in Agege, Ibadan, and possibly Ilesha in the late 18th century or early 19th century. Cocoa-growing has been associated with Christian proselytization. Cocoa-farming falls squarely within the civilizing mission of 1841, intended to make Nigerians abandon 'heathenism' and material poverty by growing crops needed in British factories while adopting the Christian way of life.<sup>35</sup> The Church Missionary Society, and latterly the African Church, became part of this design by training itinerant preachers to spread the gospel of 'coffee, cocoa, cotton and work as well as the scriptures'<sup>36</sup> in the hinterland. Initial difficulties about the linkage between spiritual and material rewards were overcome once people began to see for themselves the material rewards of cocoa cultivation. Since 'Christian converts were often the first individuals in a community to practice cocoa farming', their relative material comfort helped to persuade the local population to embrace cocoa growing.<sup>37</sup> Such Christian converts most certainly included former 'workers on the Agege plantations (who) carried back with them into the interior on their return home knowledge of the new cocoa crop and the methods of preparing it for export.'<sup>38</sup>

In Ondo Province, cocoa is believed to have been planted first in Okeigbo by 'a hunter...named Kolajo (who) encountered cocoa on a farm near Ilesha.'<sup>39</sup> According to Berry, Kolajo sought advice from Rev. Charles Phillips who encouraged Kolajo by saying that 'he and his children would never suffer' if he planted cocoa. Kolajo subsequently obtained 'a few pods from his friend at Ilesha and planted them in his compound at Okeigbo.' Reverend Phillips was an Anglican clergyman who was himself experimenting with cocoa and rice in the 1880s and had advised Christian converts in a village in

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<sup>35</sup> C. C. Ifemesia, 'The Civilizing Mission of 1841: Aspects of an Episode in Anglo-Nigerian Relations', *JHSN*, 2, 3 (1962), pp. 291-310; J. B. Webster, 'The Bible and the Plough', *JHSN*, 2, 4 (1963), pp. 418-434.

<sup>36</sup> Mojola Agbebi, cited in Agboola, 'Agricultural Changes', p. 135.

<sup>37</sup> Berry, 'Christianity', p. 450.

<sup>38</sup> Agboola, 'Agricultural Changes', p. 135.

<sup>39</sup> Berry, 'Christianity', p. 443.

January 1895 'to take up farm work and manufacture of palm oil and planting of cocoa and coffee.'<sup>40</sup> At this stage however, Ondo farmers were not inclined to cocoa growing, partly because of the natural resistance to change, because the pressure to change over to export agriculture was still less than overwhelming, or because 'verbal exhortation is not the most effective inducement to innovation.'<sup>41</sup> This initial reluctance was less prevalent in Okeigbo and Ajobamidele, where some people had planted cocoa in the 1890s. It is likely that cocoa spread further north of the forest zone at this stage, for it had been accepted throughout the province by the turn of the century. Cotton was also grown in the province, but only in central and northern parts of Ekiti Division.

The adoption and subsequent expansion of cocoa-growing in Ondo Province has reflected general structural factors and specific historical experiences. As part of Western Nigeria's 'land surplus economies',<sup>42</sup> land supply in Ondo Province has been limitless in relation to existing needs and available labour power. As indicated above, less than 10% of the province's land area was cultivated in 1931. In 1955-60, less than 1% of 4,800,000 acres covered by a sample survey was classified 'non-agricultural'; 13% was divided almost equally between food and tree crops; 17% was in reserve, while 69% was fallow, uncultivated bush or plantations.<sup>43</sup> Increasing urbanisation in western Yorubaland since the turn of the century has meant that Ondo State still has more uncultivated land suitable for cocoa-growing than any other parts of Western Nigeria in the 1980s.

Labour supply has been more problematic. The household has been and still is the basic unit of production, with labour provided mainly by the household head, his wife(s) and grown-up children and occasionally by members of the extended family.<sup>44</sup> Household

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<sup>40</sup> *Ibid.*

<sup>41</sup> *Ibid.*, p. 444.

<sup>42</sup> G. K. Helleiner, 'Typology in Development Theory: The Land Surplus Economy', *FRIS*, 6, 2 (1966), pp. 181-194.

<sup>43</sup> *WSN Statistical Abstract*, XII, 1&2 (1970), p. 114.

<sup>44</sup> On difficulties with the conceptualization of the household, see Robert J. Clarke, 'Households and the Political Economy of Small-Scale Cash Crop Production in Southwestern Nigeria', *Africa*, 51, 4 (1981), pp. 807-823; for wider analysis, see Jane Guyer, 'Introduction', *DaC*, 18, 2 (1987), pp. 197-214.

labour has been augmented at various times by other modes of labour supply, including slave labour, wage labour, and pawnship.<sup>45</sup> Slave labour was employed in virtually all parts of the province in the nineteenth century. Clarke had noted that Okeigbo, settled initially by migrants from Ile-Ife, developed a slave economy concurrently with Ibadan in the nineteenth century.<sup>46</sup> Agboola suggested that the use of slave labour was extensive in the forest zone (i.e Ondo, Okeigbo and southern Ekiti areas), where the task of clearing virgin land was more daunting than in the savannah. Agboola observed also that farmlands tended to be larger in the savannah than in forest zone on account of this difficulty and of 'the limited efficacy of iron tools then available.'<sup>47</sup> In the 1870s, civil and military chiefs in north-eastern Ekiti country acquired and maintained large slave-based households, but these were employed more to support the Ekitiparapo campaign than to advance individual economic standing or promote agricultural production generally.<sup>48</sup> In short, slave labour was part of the initial stages of the commercial transition in Ondo Province. But the province's farmers were not to replicate the size or structural attributes of Agege's plantations.

Clearly, Agege plantations derived their unique form and organisation primarily from their proprietor's deep-seated anti-colonial inclination and desire to establish an indigenous counterpoint at entrepreneurial and social levels.<sup>49</sup> As Agboola observed,

the plantation idea was alien to Yoruba agriculture, capital and labour resources at the disposal of the majority of farmers were inadequate for large-scale farming, and the recognition of risk involved in the adoption of new crops ruled out the cultivation of cocoa in anything but small parcels of land belonging to individual farmers.<sup>50</sup>

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<sup>45</sup> Cf. Berry, 'Christianity', p. 450.

<sup>46</sup> Clarke, 'Agricultural Production', p. 115.

<sup>47</sup> Agboola, 'Agricultural Changes', p. 131.

<sup>48</sup> S. A. Akintoye, 'The Economic Background of the Ekitiparapo 1878-1893', *Odu*, 4, 2 (1968), pp. 45-48; Andrew Apter, *Black Critics and Kings* (Chicago, 1992), pp. 88-89.

<sup>49</sup> Hopkins, 'Innovation'.

<sup>50</sup> Agboola, 'Agricultural Changes', p. 136.

Indeed, cocoa cultivation was to be grafted onto existing social and productive structures in Ondo Province. According to Berry,

[i]n both Ibadan and Ondo...farmers planted cocoa in small, scattered plots which were used simultaneously for food crops. The trees were randomly spaced and close together; farmers used traditional tools and methods of organizing labour.<sup>51</sup>

At a more specific level, Ondo Province had few internal regenerative economic opportunities vis-a-vis its resource endowment in the 19th century. This is partly because the province comprised former slave fields and vassal or quasi-tributary states where 'the peaceful but mundane business of economic production' had been secondary to military pursuits for several decades; and partly because its terms of trade were controlled by external interests.<sup>52</sup> Prior to the opening of the Ondo road in the 1870s, commercial traffic between Lagos and the hinterland was the near-exclusive preserve of Ijebu and Ibadan traders.<sup>53</sup> Ibadan also established a military-imperial presence in Ekiti and Akoko areas. This was based on a hierarchy of guardian chiefs (*Bàbákékeré*) who 'levied...a proportionate tax...on every house, which [had] to be paid every week, or, at farthest, fortnight, to the [local] king, who transmit[ted] it'<sup>54</sup> and were 'entitled to retain some portion of the tribute' for their personal use.<sup>55</sup>

Moreover, some of Ibadan's local representatives (*Ajélè*) saw their position as an opportunity to accumulate wealth. They often retained a large number of otherwise 'jobless people who had to be fed by levying the subjects in the colonies' and were inclined to 'loot, seize foodstuffs and goods from traders, confiscate property and rob on

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<sup>51</sup> Berry, 'Christianity', p. 444.

<sup>52</sup> Bolanle Awe, 'Militarism and Economic Development in Nineteenth Century Yoruba Country: The Ibadan Example', *JAH*, XIV, 1 (1973), p. 74; Apter, *Black Critics*, pp. 88-89.

<sup>53</sup> Toyin Falola, *The Political Economy of a Pre-Colonial State* (Ile-Ife, 1984).

<sup>54</sup> May, 'Journey', p. 221.

<sup>55</sup> S. A. Akintoye, 'The Economic Foundations of Ibadan's Power in the Nineteenth Century', in Akinjogbin and Osoba, *Topics*, p. 63; cf. Bolanle Awe, 'The Ajele System- A Study of Ibadan Imperialism in the Nineteenth Century', *JHSN*, III, 1 (1964), pp. 47-60.

the highway' to make up for perceived shortfalls in social provisioning.<sup>56</sup> Ondo itself was not subject to Ibadan suzerainty and benefited immensely from its location on the trade route between Ife, Ibadan and Benin and between Lagos and Ekiti country through Ilaje and Ikale and coastal Ijebu countries. But Ondo fought its own local territorial battles against neighbouring Okeigbo and Okitipupa to the south; its relative neutrality in the Ekitiparapo war also gave Ibadan access to Benin's ports for imported arms.<sup>57</sup> In short, Ondo Province experienced what may be called 'arrested development' through economic transfers occasioned by Ibadan's 'colossal, and often irresponsible demands' for men and foodstuffs in times of war and peace alike<sup>58</sup> and by the domination of its trade by external interests.<sup>59</sup>

The nature of the province's incipient commercialism was indicated soon after the opening of the Ondo road. The increased trade stimulated by the new road had created an alternative use for available labour, namely, to convey commodities (i.e. oil palm and hand-woven clothes as well as imported manufactures) overland from the Ilaje creeks. The enlarged demand was met, however, by increased slave raiding in the hinterland and by withdrawing labour from more traditional uses - in short, by transferring labour from production to commerce just as opportunities in export agriculture were emerging.<sup>60</sup> In 1939, Captain Wann noted that traders in Ondo town were resented by their neighbours for their get-rich quick mentality,<sup>61</sup> an early example of directly unproductive activities typical of Nigeria's macro-economic practice since the 1970s.<sup>62</sup>

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<sup>56</sup> Falola, *Political Economy*, p. 149.

<sup>57</sup> Akintoye, 'Economic Foundations', p. 64.

<sup>58</sup> *Ibid.*; Falola, *Political Economy*, pp. 148-150.

<sup>59</sup> Cf. Akin Mabogunje and Paul Richards, 'Land and People - Models of Spatial and Ecological Processes in West African History', in Jacob Ajayi and Michael Crowder (eds.), *History of West Africa* (3rd. ed, 1985), p. 43.

<sup>60</sup> S. A. Akintoye, 'The Ondo Road Eastwards of Lagos c. 1870-95', *JAH*, X, 4 (1969), pp. 587-588.

<sup>61</sup> J. Wann, 'Travel in Ondo Province', *Nigeria*, 18, 1939.

<sup>62</sup> See editor, 'Nigeria: A Political Economy', in Gavin Williams (ed.), *Nigeria: Economy and Society* (1976), p. 13.



Partly because of the renewed violence in Ondo Province in the late nineteenth century, the expansion of cocoa-growing in the province had to await the large army of ex-soldiers and ex-slaves whose military careers had been ended by the cessation of intra-Yoruba hostilities and by active British intervention in Yoruba society in the 1890s. These and others 'who found themselves without any occupation after 1893'<sup>63</sup> either turned to 'collecting and selling wild rubber which was available in abundance in Ondo forests'<sup>64</sup> or left their villages in search of employment in construction sites in and around Lagos. Some of those in the latter category came in contact with the Agege experiment and returned home to establish their own cocoa farms.<sup>65</sup>

Cocoa-growing became a major agricultural endeavour in the province during the 1920s.<sup>66</sup> Output from Ondo Division also became large enough to attract outside attention. In 1927, Ondo growers obtained two prizes at an exhibition in Calabar;<sup>67</sup> two trading companies, Messrs Miller Brothers Ltd., and W. B. MacIver Company, also opened new agencies at Ondo.<sup>68</sup> In the 1926/27 crop year, cooperative fermentaries in Ondo Division treated 118 tons of cocoa. In 1927/28, the division's tonnage rose to 179 even though prices fell by a nominal 33% to £28 per ton.<sup>69</sup> By contrast, the 80 lbs. of cotton purchased in Ekiti Division in 1928 was regarded officially as 'a very large advance from 1927 when the amount brought to the market was almost negligible.'<sup>70</sup> Cotton output increased to 1,326 lbs. in 1929, but the entire product had to be taken to Osogbo for sale owing to the lack of buyers and competition in the local markets.<sup>71</sup> In

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<sup>63</sup> Agboola, 'Agricultural Changes', pp. 135-136.

<sup>64</sup> Berry, 'Christianity', p. 451.

<sup>65</sup> *Ibid.*, pp. 443-444; Agboola, 'Agricultural Changes', p. 135.

<sup>66</sup> Clarke, 'Agricultural Production', p. 128; Agboola, *Agricultural Atlas*, p. 100.

<sup>67</sup> *Annual Report, 1927*, p. 52.

<sup>68</sup> *Ibid.*, p. 53.

<sup>69</sup> *Annual Report, 1928*, p. 43.

<sup>70</sup> *Ibid.*

<sup>71</sup> *Annual Report, 1929*, p. 28.

the same year, 220 tons of cocoa were purchased in the province, much of them from Ondo Division.<sup>72</sup>

Clearly, cocoa planting increased rapidly in Ondo Province in the 1920s as more and more people heard the ‘gospel’. But the above has given prominence to output from Ondo Division, and to that extent, masked important trends in the then emerging cocoa economy. In fact, cocoa expanded more rapidly in other Divisions, especially Ekiti than in Ondo. Farmers in Ondo Division were also likely to have committed less land to cocoa after the 1920s than has been implied above. This position is supported by cocoa acreage data in the province between the 1920s and the 1940s.

According to official survey estimates, about 50,426 cocoa farms averaging 2.05 acres (0.83 ha.) each were recorded in the province by 1948.<sup>73</sup> This totalled 103,548.3 acres, about 5% of the province’s arable land or 3-4% excluding forest reserves.<sup>74</sup> About 69% of the province’s total acreage belonged to two upper age groups of 11-21+ years while 31% belonged to two lower age groups of 0-10 years. One-tenth of the proportion in the former category (i.e. 6.7% of cropped area, or 6,942.1 acres) belonged to the 21+ age group while nine-tenths (62.5% of cropped area, or 64,681.7 acres) was classified in the 11-20 age group. Of the 31% of total cropped area in the 0-10 year age group, 88% (or 27% of total acreage) was classified in the 6-10 year age group, leaving only 12% (or 4% of cropped area) in the 0-5 year group. This suggests that cocoa was planted extensively in the province during the 1920s and the 1930s, and that more land was brought under cocoa in the 1930s than in the 1920s.<sup>75</sup>

Table 2.3 presents the distribution of this acreage between the three cocoa producing divisions. The table suggests that Ekiti had the largest share (36%) of cocoa acreage in the province in 1948, followed by Owo with 34% and Ondo with 30%. Ekiti Division

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<sup>72</sup> *Ibid.*

<sup>73</sup> Rowling, *Land Tenure*, p. 72.

<sup>74</sup> *Ibid.*, p. 71.

<sup>75</sup> Cf. Berry, *Cocoa*, pp. 65-66.

also had the largest share of the acreage in the two upper age groups- with 38% of acreage in the 11-20 years group and 56% of total acreage in the over 21 years group. In both cases, Ondo Division came second, having recorded 32.4% and 34% of the acreage in the 11-20 and 21+ age groups respectively, while Owo Division recorded about 30% and 10% of acreage in the same age groups. This pattern is reversed with respect to the two other age groups. Of total acreage in the 6-10 age group, 47.3% was located in Owo Division, while Ondo and Ekiti had about 26% each. Owo Division also had over 55% share of acreage in the 0-5 years age group, while Ekiti had about 38%, thus leaving Ondo with only 7%.

**Table 2.3**  
**Distribution of Ondo Province's Cocoa Acreage, 1948 (by Age and Division)**

Division	Total acreage	% distribution in age groups			
		0-5	6-10	11-20	21+
Ekiti	37,304.4	37.5	26.4	38.0	56.0
Ondo	30,991.8	7.1	26.3	32.4	34.0
Owo	35,252.1	55.4	47.3	29.6	10.0
Province	103,548.3	3.8	27.0	62.5	6.7

Source: Rowling, *Land Tenure*, p. 69.

Data in Table 2.3 suggest also that Ondo Division's preeminence in cocoa cultivation during the 1920s may have been overstated. Clearly, Ekiti Division had the largest share of total acreage and of oldest trees. Ekiti also had a significant share of acreage in the lower age groups. Its share of acreage in the 0-5 and 6-10 age groups fell below that of Owo Division, but was well over Ondo's in the former and about the same in the latter. Owo Division's higher ratings in the lower age groups would seem to suggest that more of its farmland was put under cocoa in later years, and probably that the youngest cocoa trees in the province in 1948 were in the Division. But although cocoa cultivation doubled in Owo Division between the 1930s and the early 1940s, much of this acreage was in Akoko district, where up to 40% of cultivable land may have been put under cocoa by the 1940s.<sup>76</sup>

<sup>76</sup> Rowling, *Land Tenure*, p. 72.

The above is perhaps insufficient to question Ondo Division's historical role in cocoa cultivation in eastern Yorubaland. But it does suggest that Ondo possibly had a lower percentage of its land under cocoa in 1948 in relation to other Divisions, or in any case that Ondo's farmers were not growing cocoa at the expense of food crops. There is also reason to believe that more land has been brought under cocoa in Ekiti Division than in other Divisions since the 1920s, and that the seemingly higher response rate of farmers in Ekiti Division was maintained for much of the 1930s.

The rate of cocoa expansion in Ekiti was higher, more so if account is taken of ecological differences within the province. Ondo is firmly located within the forest zone while Ekiti and Akoko areas have significant portions of savanna. Since cocoa cannot grow in savannah conditions, a greater proportion of land in and around Ondo has been more suitable for cocoa-farming than in Ekiti and Akoko areas. By the late 1940s, however, Ekiti Division had more cocoa acreage than Ondo. This suggests clearly that 'Ekiti and Akoko...both...committed themselves [to cocoa-growing] far more deeply than...Ondo...' <sup>77</sup> or, alternatively, that Ondo's farmers never did put all their eggs in the same basket. <sup>78</sup> The next section shows how official attempts in the 1930s and 1940s to redress the imbalance between cocoa and food production were scuttled by jurisdictional arguments and by more primary political priorities.

### 2.3 Policy Responses I: 1930s and 1940s

Cocoa cultivation undermined food production in at least two ways. First, farmers tended to put the most fertile land under cocoa, thereby precipitating a shortage of equally suitable land for food cropping. Rowling reported that kin groups at Ikare, Oba, and Oka, all in Akoko, were moved to impose restrictions on cocoa planting. <sup>79</sup> Rowling did not specify when this took place, but it is likely to have been in the 1930s. In 1928, according to Forde, yam plots accounted 'nearly all the farm acreage' in Owo Division

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<sup>77</sup> *Ibid.*

<sup>78</sup> Wann, *Travel*'.

<sup>79</sup> Rowling, *Land Tenure*, p. 72.

(including Akoko District).<sup>80</sup> In Irun, in Akoko District, cocoa-growing had displaced oil-palm production in about two decades from the 1920s, with most of the cocoa 'grown by non-residents from Ikare.'<sup>81</sup> It is, therefore, a measure of social concern for the rate at which cocoa was replacing traditional food crops in the 1930s that some cocoa plants were uprooted in Ikare and other Akoko villages to make more land available for food cropping, and perhaps also to drive home the point that there could be more to socio-economic existence than cocoa-growing.

Secondly, given limited labour supplies, cocoa growing encouraged a near-total abandonment of food cropping in some areas. In Okeigbo, according to Clarke, experimentation with food crops had declined sharply as early as 1910, soon after cocoa became a major crop in the area.<sup>82</sup> By the 1920s, colonial officials were expressing misgivings at the rate of cocoa expansion and its possible backwash effect on food production. Rowling reported this trend with regard to Ondo and Ekiti Divisions, citing an Assessment Officer's remark that 'owing to the high price of cocoa a great many farmers are beginning to concentrate almost entirely on this crop to the detriment of their staple food crops.'<sup>83</sup> In 1928, cocoa cultivation was said to be growing so fast in Ondo Division that the District Officer 'expressed some anxiety as to whether it will not cause an undue diminution of the production of essential food crops.'<sup>84</sup>

The initial policy response to the food situation is, on the whole, half-hearted and disappointing. Its primary goal, to re-invigorate food production in areas where export crops had become prominent, was soon bogged down by inter-departmental squabbles and by concern for the war effort. On 16 May 1938, J. R. Mackie, then Director of Agriculture for Nigeria, wrote a memorandum to the Chief Secretary to the Government (CSG). In the memorandum, Mackie repeated what District Officers had been saying for

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<sup>80</sup> Forde, 'Native Economies', p. 81.

<sup>81</sup> *Ibid.*, p. 83.

<sup>82</sup> Clarke, 'Agricultural Production', p. 130.

<sup>83</sup> Rowling, *Land Tenure*, p. 72; *Annual Report, 1927*, p. 52.

<sup>84</sup> *Annual Report, 1928*, p. 43.

at least two decades, namely, that export crop production had created problems of soil fertility and food supply in the Southern Provinces. He also recommended a full-scale investigation.<sup>85</sup> No action was taken on Mackie's proposal until 1940, by which time the Second World War had started and official interest in a food production campaign had shifted significantly.

Official action now took two slightly opposed directions. On the one hand, the British economy suffered an acute shortage of foreign exchange in the 1940s, partly because of the costs in dollars of essential war and, as it turned out, of post-war economic reconstruction.<sup>86</sup> Since proceeds from the cocoa sales in American markets provided just such foreign exchange, local colonial administrators became obliged to raise the productivity of existing farms in the short term and encourage new planting in the medium and longer terms. Secondly, action was taken to keep food imports to the minimum in order to reduce pressure on available foreign exchange and food supply in Britain.<sup>87</sup> The effect on Ondo State's farmers of restrictions on food imports into Nigeria is likely to have been negligible.

In 1940, government decided to embark on a campaign to boost food production, 'more particularly in Provinces which are not self-supporting and in areas where people hitherto have been dependent on export crops.'<sup>88</sup> To this end, the post of Director of Food Production was created with J. R. Mackie as first appointee.<sup>89</sup> A re-organisation of the Agriculture Department was also envisaged, most probably to streamline jurisdictions and ensure better coordination of government programmes on food production. However, the

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<sup>85</sup> Memorandum 2758/DA/6A of 16 May, 1938, CSO/26/4/34177, NAI, p. 2.

<sup>86</sup> This is one reason why controlled cocoa-marketing was extended and intensified after the war. See P. T. Bauer, 'Origins of the Statutory Monopolies of West Africa', *Business History Review*, 28 (1954), pp. 199-201; and *West African Trade* (Cambridge, 1954), pp. 263-275; and A. Olorunfemi, 'Background to the Establishment of the Nigerian Cocoa Marketing Board 1947-48', *Odu*, 19 (1979), pp. 59-60.

<sup>87</sup> Malcolm McDonald, Secretary of State for the Colonies to OAG Nigeria, 31 October 1939, CSO 26/36378, NAI.

<sup>88</sup> Minute 36378/48, most probably written in June 1940 by A. F. R. Stoddart, Ag. CSG.

<sup>89</sup> Minute 36378/49 of 25 June 1940, CSO 26/36378/S.27, NAI; Government Notice N<sup>o</sup> 732, Gazette N<sup>o</sup> 43 of 04 July 1940.

problem remained how to define (or re-define) relations between departments with direct or incidental responsibility for food production. A related question was where to locate the new Director of Food production within existing arrangements.

These considerations were the subject of a confidential memorandum from Mr. Mackie to the Chief Secretary on 28 May 1941. Mackie complained that utter confusion characterised functional and jurisdictional arrangements in the Forestry, Veterinary and Agriculture departments. Each department, it seemed, embarked on programmes that caught the fancy of its principal officers, notwithstanding whether similar programmes were being implemented by other departments. The result was an avoidable waste of resources occasioned by duplicated programmes. Mackie noted, for example, that the Agriculture Department had occasionally dropped its own schemes whenever it became clear that 'the Veterinary Department wished to start similar schemes and have taken over lines of work which having been started seemed likely to languish.'<sup>90</sup>

Finally, Mr. Mackie undertook a staff review in all three departments, arguing that more could be achieved if 'some degree of amalgamation' of their disparate efforts be permitted. Mackie did not thereby become an advocate of long-term inter-departmental collaboration though. For him, collaboration and coordination were necessary only because of the severe production and supply requirements occasioned by the war while his primary concerns were 'effectiveness and speed in action...to secure maximum effectiveness and speed in developing our food resources and in getting them to the consumers, whether civil or military.'<sup>91</sup> This implied clearly that each department could revert to the *status quo ante* as soon as hostilities ended. In the meantime, Mackie hoped that the war would make possible the emergence of a 'Rural Development Department' and that all 'technical departments will be so coordinated that in their contacts with the Nigerian people they will speak with one voice.'<sup>92</sup>

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<sup>90</sup> Mackie to CSG, 28 May 1941, p. 9.

<sup>91</sup> Mackie to Chief Secretary, 10 June 1941, p. 21.

<sup>92</sup> *Ibid.*, p. 11.

Mackie proposed that the role of the Director of Food Production be expanded, and the office re-designated as Director of Food Production and Supplies (DFPS). Under this new dispensation, the Chief Secretary would refer all questions to the DFPS rather than to heads of individual departments concerned. The DFPS was to be superior to the Chief Commissioner, at least to the extent that the latter was not to overrule the former without reference to the Chief Secretary. By the same token, orders were not to be issued without the concurrence of the DFPS.<sup>93</sup> Yet, Mackie was concerned about the 'difficulty of promoting closer co-ordination between Agriculture and Veterinary Departments without appearing to connive at the swallowing up of the latter by the former.'<sup>94</sup> In particular, he expressed apprehension about the way his proposals would be received by officers in the Northern Provinces.

In the event, the Administrative Officer in Kano never really cooperated with Mackie. Nor did W. W. Henderson, then Director of the Veterinary Department, see any need for Mackie's proposed co-ordinated approach. This put Mackie in the dock, forcing him to defend his proposals as they affected the Veterinary Department. On 21 March 1940, while expressing reservations about the Veterinary Department's proposal to make butter in Jos, Mackie had to preempt possible charges of jurisdictional 'territory-building' by stating categorically that he was 'not concerned in the least with the question of who gets credit for these schemes or whose particular job it is to carry them out.'<sup>95</sup> On June 7 1941, Mackie also wrote to the CSG to dispel fears that he was petty with regard to the Veterinary Department's activities<sup>96</sup> Having repeated his view that in a war situation, 'the only thing which matters is that the food should be produced', he explained that he had drawn up plans for virtually everything but changed course whenever he heard that the Veterinary Department proposed to give attention to the same products. He was not always informed of plans by the Veterinary Department and only heard about them after

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<sup>93</sup> *Ibid.*

<sup>94</sup> CSG to Director of Agriculture/Food Production and Supplies, p. 12.

<sup>95</sup> Mackie to W. W. Henderson, Director of Veterinary Services, 21 March 1940, in *ibid.*, p. 19.

<sup>96</sup> Mackie to C. C. Woolley, June 7, 1941.



they had been started.<sup>97</sup>

Approval was given to Mackie's re-designation proposal by a circular dated 21 June 1941. Mackie was also granted powers to coordinate government's food programmes 'so that there may be no overlapping of activities, to authorise the commencement of programmes which, in this view, conformed to policy, administer funds provided for such programmes, and to ensure that delivery schedules are duly observed once arrangements have been made'. The circular made it clear, however, that the DFPS could not redeploy technical staff without the authority of the Chief Secretary.<sup>98</sup> A week later, precisely on 28 June 1941, the Director of Veterinary Services inquired, by a telegram to the Chief Secretary, whether by that circular, the Director of Agriculture took over schemes of butter, bacon and beef production 'initiated and...operated by the Veterinary Department in Plateau Province.'<sup>99</sup> The Chief Secretary's non-committal response was that 'work should be co-ordinated with other activities.'<sup>100</sup> The DFPS's post was finally abolished on 20 January 1944.<sup>101</sup> Thus was a seemingly sincere official effort to address an important, if unintended, effect of export agriculture undermined and then neutralised primarily by vested interests in Nigeria's colonial administration and, indirectly at least, by more primary metropolitan political-economic interests over local concerns in policy-making.

Meanwhile, the food situation in parts of Ondo Province had moved from bad to worse during the 1940s. In 1945, for example, the District Officer for Okitipupa prohibited the export of *gaari*, a staple made from cassava, from Okitipupa and Ondo because '*gari* is not plentiful and prices in Okitipupa are still at a high level.'<sup>102</sup> Late rains and a

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<sup>97</sup> *Ibid.*, p. 16.

<sup>98</sup> Circular No. 13/1941 of 21 June 1941.

<sup>99</sup> Telegram No. V1729/120, Director of Veterinary Services to Chief Secretary.

<sup>100</sup> Chief Secretary to Director of Veterinary Services, CSO 26/36378/S.27/33.

<sup>101</sup> Government Notice N<sup>o</sup> 55, Gazette N<sup>o</sup> 4, 20 January 1944.

<sup>102</sup> *Daily Service* (Lagos), 25 August 1945, p. 3.

drought in northern Ekiti districts occasioned a 50% fall in yam harvests and a near total failure of late maize.<sup>103</sup> The drought also caused severe food shortages and sharp price increases throughout Ekiti Division, prompting official worries about declining food production. According to an official report,

[t]he lack of locally-grown foodstuff is apparent and no one could be found to undertake to supply rations to the Ado prison next year at 6d. per diem. 8d. per diem is the lowest price tendered. In 1944 the prison contractor accepted 4d. per diem.<sup>104</sup>

Still, the share of arable land under cocoa was increasing steadily. In about three decades to 1947, Ondo Province had overtaken other parts of the cocoa belt in terms of acreage, its share having increased from about one-tenth in the 1920s to nearly four-fifths in the 1940s (Figure 2.1). By the 1950s, cocoa accounted for 7.6% of agricultural land in Ondo, 10.1% in Ado-Ekiti, 11.9% in Owo, and 12.5% in Akure.<sup>105</sup> In 1950/51, 8.3% of available land in the province was devoted to tree crops, mainly but not exclusively cocoa. By 1958/59, the proportion of land under cocoa had fallen to 6.9%, just over the 6.5% share for farm crops.<sup>106</sup> In the same year, Ondo Province accounted for 53% of Western Region's cocoa trees (n=443 million) and 48% of its 274,383 ha. total cocoa hectareage. At face value, these ratios compared favourably with the province's 44% and 41.4% shares of the region's cocoyam and yam acreages respectively.<sup>107</sup> But the food crops under reference had been grown for much longer and by a larger number of people than cocoa. The picture would also change significantly if variations between forest and savanna areas of the region were taken into account.

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<sup>103</sup> *Annual Report, Ekiti Division, 1945*, p. 5. Ondo Prof. 1/1/120A, NAI.

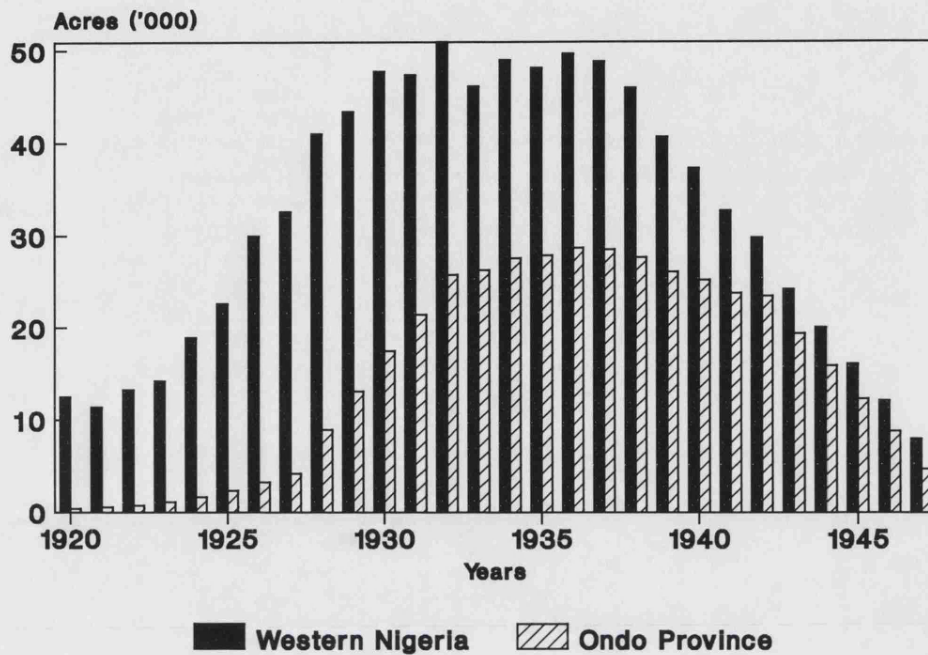
<sup>104</sup> *Ibid.*, p. 8.

<sup>105</sup> Agboola, *Agricultural Atlas*, p. 62.

<sup>106</sup> *WSN Statistical Abstracts*, 12, 1/2 (1970), Table 100, p. 115.

<sup>107</sup> *Ibid.*, Table 106, p. 121.

**Fig. 2.1 Cocoa Acreages in WN, 1920-47**  
(5-year moving average)



Computed from Berry, *Cocoa*, p. 222.

## 2.4 Policy Responses II: 1950s-1970s

If policy initiatives in the 1930s and 1940s failed to redress the food-cocoa imbalance in Western Nigeria, those of the 1950s and 1960s made no pretence about seeking any such redress. On the contrary, Western Nigeria's first post-colonial government simply embraced export crops (especially cocoa) for their fiscal and political pay-offs, leaving food production under peasant control but also reinforcing existing urban-rural relations. Since government's agrarian activism in the 1950s and 1960s has been well researched, only a summary is necessary here to show policy biases in favour of export crops and against food crops.

Two main issues dominated government thinking on agriculture in the 1950s and 1960s. The first is akin to Ernest Feder's self-liquidation thesis, namely, how to intensify peasant production through massive capitalization, including mechanisation, while retaining the

peasants' goodwill and support through promises of 'life more abundant...and the establishment of a contented peasantry.'<sup>108</sup> The second issue was a parallel strategy to promote large-scale plantations in various parts of the region. In either case, government focused more on export than on food crops, apparently because export crops offered it substantial fiscal benefits while expanding the economy's import capacity. In its first agricultural policy published in 1952, the Western regional government expressed its commitment to agricultural modernisation through support for efficient cultural practices, especially crop rotation and mechanisation. The government also expressed bluntly its preference for large-scale farms in the following terms:

The production of staple commodities for the world market is often most economically undertaken by large scale enterprise...At the same time...the interests of the community will be best served by a balance between both plantation and peasant farming and specialised and self-sufficient systems of agriculture...Accordingly, assistance will be provided for the formation of large-scale commercialised farms formed by the grouping together of small peasant farmers into co-operatives or recognised local farmer's associations.<sup>109</sup>

This effectively reversed the colonial administration's rejection of plantations because, among other reasons, officials thought it 'undesirable to turn a peasant owner into a mere farm labourer...' in defiance of his customs.<sup>110</sup> One result of this policy change was a dramatic increase in the number of plantations, with thirty six (or about 82%) of forty-four plantations in southern Nigeria in the 1960s established in 1952-62, the 'plantations decade'.<sup>111</sup> In Western Nigeria, 15 government farms of up to 150 acres each as well as three plantations of between 300 acres and 18,000 acres each, had been established by 1953.<sup>112</sup> In 1962, about half of forty-four plantations in southern Nigeria were based in different parts of Western Region, all of them owned or managed solely or jointly with

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<sup>108</sup> Nigeria, *Agricultural Policy for the Western Region* (Ibadan, 1952), p. 4.

<sup>109</sup> *Ibid.*, p. 6; p. 12.

<sup>110</sup> CSO 26/31071/41, NAI., minute dated 1 June 1936 by L.G Shenton, for Acting CSG, p. 43.

<sup>111</sup> R. K. Udo, 'Sixty Years of Plantation Agriculture in Southern Nigeria: 1902-1962', *EcG*, 41, 4 (1965), p. 364.

<sup>112</sup> *Annual Report of the Department of Agriculture, Western Region for the Year 1952-53* (Ibadan, 1957).

private investors by the regional development corporation.<sup>113</sup> In spite of evidence concerning the relative efficiency of peasant-based cocoa production, and early indications of failure, including poor site selection and even poorer farmer response,<sup>114</sup> large-scale farm projects continued well into the 1960s.

Government's quest for 'balance' between small and large farms emerged in 1959 in the form of co-operative farm settlements, designed ostensibly to discourage 'the excessive drift of young school leavers to urban centres...'<sup>115</sup> The emphasis on the structures and economics of land settlement itself has however encouraged observers to gloss over the scheme's palpable bias in favour of tree crops and against food crops.<sup>116</sup> In 1959, government stated clearly that the settlements would grow mainly tree crops, especially cocoa, oil palm, and rubber, with food crops cultivated as subsidiary crops only. The acreage of food crops was to be adjusted 'from time to time to avoid any interference with the efficient management of the main crops...'<sup>117</sup> The government denied that it was seeking to promote export crops at the expense of food crops, but it had expressed its urban inclinations in 1952, when it stated that 'all systems should contribute to the security and soundness of food supplies for urban dwellers.'<sup>118</sup> That inclination was specified further in the following statement:

Although progress is being made in establishing industry, in the foreseeable future the

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<sup>113</sup> Udo, 'Sixty Years', p. 366.

<sup>114</sup> *Annual Report 1952-53*, p. 11; p. 19; cf. Lekan Are, 'An Assessment of Some Plantation Problems in Western Nigeria', *TA*, 41, 1 (1964), pp. 1-13.

<sup>115</sup> 'Future Policy of the Ministry of Agriculture and Natural Resources', *Sessional Paper N<sup>o</sup> 9 of 1959*, p. 10.

<sup>116</sup> Mordechai E. Kreinin, 'The Introduction of Israel's Land Settlement Plan to Nigeria', *JFE*, 45, 3 (1963), pp. 535-546; Dupe Olatunbosun, 'Western Nigeria Farm Settlements: An Appraisal', *JDA*, 5, 3 (1971), pp. 417-428; O. O. Okediji, 'Some Socio-Cultural Problems in the Western Nigeria Land Settlement Scheme: A Case Study', *NJESS*, 7, 3 (1965), pp. 301-310; and 'Some Structural Strains in the Change Agent System of the Western Nigeria Land Settlement Scheme', *NJESS*, 10, 3 (1968), pp. 387-395; A. J. Adegeye, 'Re-Examination of the Issues involved in the Farm Settlement Scheme of the Western State of Nigeria', *OAS*, III, 1, new ser. (1974), pp. 79-88.

<sup>117</sup> 'Future Policy', p. 11.

<sup>118</sup> 'Agricultural Policy', p. 6.

greatest increase in the national wealth of Western Nigeria is likely to come from the optimum use of the land and its agricultural potentialities. It is from this source that the Government looks for the principal means with which to finance its expanding development programme, and with which to provide on an increasing scale the social services which it has already brought to and will continue to give to the people of Western Nigeria.<sup>119</sup>

Since fiscal pay-offs to government from the food sub-sector has been and remains low, the above statement committed government to increasing export crop cultivation in the 1950s and 1960s. This period also coincided with what may be called the golden years of cocoa production in the Ife-Ijesha-Ondo or eastern zone of Nigeria's cocoa belt generally and in Ondo Province in particular. From about 23% in 1954/55, the province's share of Western Nigeria's cocoa crop increased steadily to over 40% during the 1960s, and to about 50% in the 1970s.<sup>120</sup> As Table 2.4 shows, annual output in the province

**Table 2.4**  
**Ondo Province's Share of Western Nigeria's Cocoa Output, 1954-90**

Sub-period	Output (metric tonnes)		
	Western Region <sup>a</sup>	Ondo Province <sup>b</sup>	Prov. share %
1954/55-1958/59	99,190	25,272	25.5
1959/60-1963/64	170,808	51,203	30.0
1964/65-1968/69	221,168	82,308	37.2
1970/71-1973/74 <sup>c</sup>	225,169	106,399	47.3
1976-1980	167,000	75,903	45.5
1981-1985	154,000	82,204	53.4
1986-1990	187,000	76,826	41.1

Notes: <sup>a</sup> Annual average based on (i) produce inspection records for 1954-74; and (ii) aggregate output for 1976-90.

<sup>b</sup> Annual average based on produce inspection records.

<sup>c</sup> Four observations only; figures for 1969/70 and 1974/75 not available.

Sources: 1954-74: WNMB, *Statistical Information on Western State of Nigeria Controlled Produce* (Ibadan, 1969, 1975).

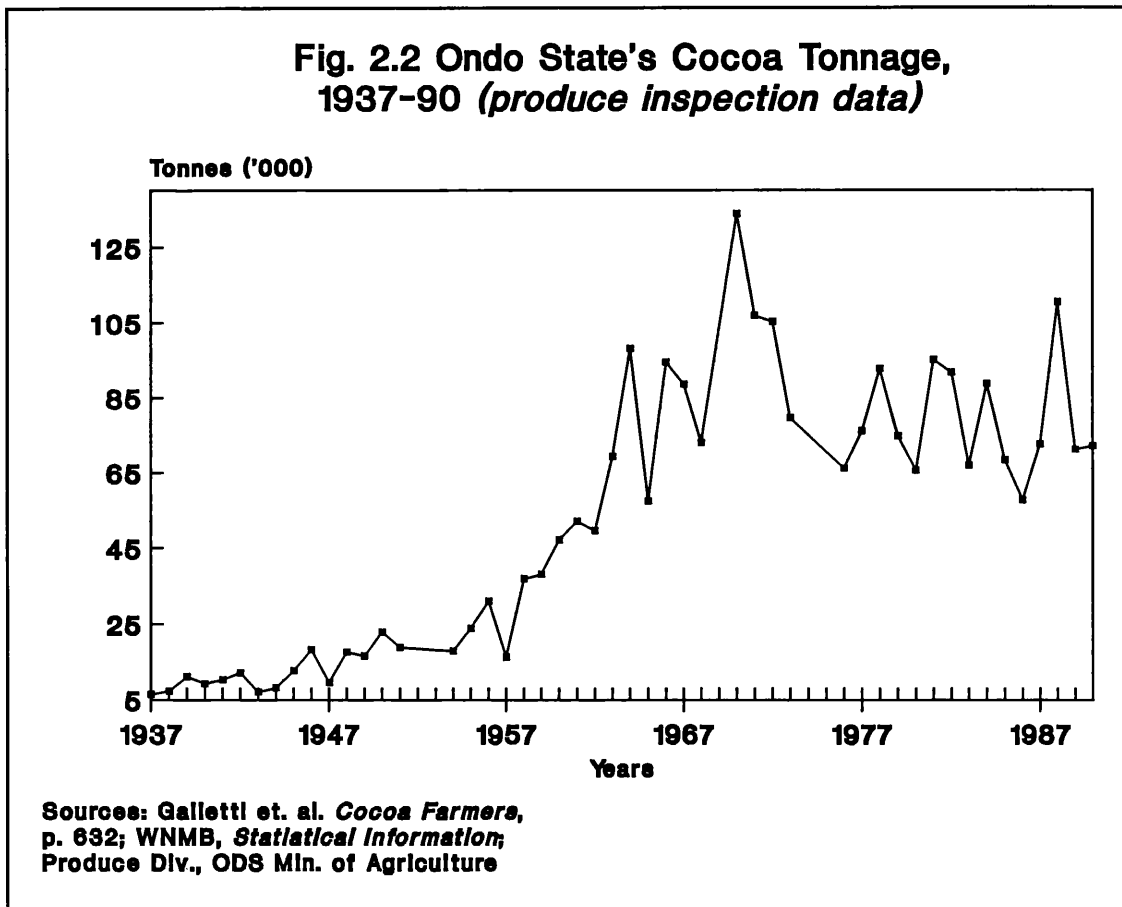
1976-90: CBN, *Statistical Bulletin*, 1&2 (1990), p. 79 for regional figures; Ondo State figures from Dir. of Produce, Ministry of Agriculture.

averaged between 26% and 47% of the regional crop in two decades up to 1974, after which it moved back and forth between 40% and 50%. However, regional figures for

<sup>119</sup> 'Future Policy', p. 1.

<sup>120</sup> Computed from WNMB, *Statistical Information on Western State of Nigeria Controlled Produce* (Ibadan, 1969, 1975).

1976-1990 refer to total output, and could have understated the state's contribution by 5-10%, the latter being the proportion of Nigeria's cocoa crop that is produced outside Western Nigeria's administrative boundaries. In any case, Ondo State is widely believed to be producing half of Nigeria's cocoa output in the 1980s. The state's average output itself peaked in 1970-74, declined sharply in 1975-80 and moved haphazardly thereafter. Seasonal changes in Ondo State's cocoa output, masked by average figures in Table 2.4, are shown more explicitly in Figure 2.2 below.



Ondo State's increasing share of cocoa output since the 1950s can be explained in three related ways. First, as indicated above, cocoa was planted extensively in Ondo Province from the mid-1920s. As Figure 2.2 shows, output from this planting seemed to have peaked in the 1950s, but this suggests that subsequent growth in output could be attributed only to new plantings after the initial wave of the 1930s. Second, cocoa production and productivity in Ibadan, Ota, and Ilaro had declined dramatically during

the 1940s. This decline has been attributed to the age and diminishing productivity of cocoa trees; the outbreak of swollen shoot disease and the massive tree-cutting measures imposed by government; increasing urban settlement and associated demand on available farmland; and the general lack of interest in cocoa regeneration. Above all, new land was being brought under cocoa in the Ife-Ilesha-Ondo (or eastern) axis of Nigeria's cocoa belt even after 1950.<sup>121</sup> In fact, between 50% and 75% of agricultural land was devoted to cocoa in parts of southern Ekiti, Owo, and Ondo in the 1960s.<sup>122</sup>

Available evidence for the 1970s suggests also that cocoa was being planted more actively in Ondo State up to the early 1980s than in Ogun and Oyo States. By 1975, cocoa's share of the state's arable land had increased to 14.5% from less than 10% in the late 1950s.<sup>123</sup> In ten years to 1982, Ondo State accounted for half of 26,673 ha. in new cocoa plantings funded with a US \$27.2 million IBRD credit while Oyo State accounted for about two-thirds of 70,826 ha. of rehabilitated or replanted land.<sup>124</sup> Of the 28,679 ha. reported for Ondo State, 53% was replanted while 47% was new land. Two-thirds of Ogun State's 16,163 ha. were replanted and one-third was newly planted; in Oyo State, 85% of a total of 52,646 ha. was replanted, leaving only 15% of new cocoa farmland.<sup>125</sup> As a whole, more new cocoa farms had been established in Ondo (total area 13,594 ha.) than in Ogun and Oyo States combined (13,068 ha.). As in the 1920s and 1930s, it is likely that this was achieved at the expense of food production, more so since the technical conditions of production of both crops had changed very little.

It is difficult to make precise statements about Ondo State's food economy. Policy and research biases in favour of international tradeables have invariably encouraged a cumulative neglect of the food sub-sector over the years. More importantly, production

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<sup>121</sup> Berry, *Cocoa*, pp. 58-71.

<sup>122</sup> Agboola, *Agricultural Atlas*, p. 106.

<sup>123</sup> Agboola, *Agricultural Atlas*, p. 62; *WSN Statistical Abstracts*, 12, 1/2 (1970), Table 100, p. 115.

<sup>124</sup> M. Oladokun and A. Daramola, 'Nigerian Cocoa Development Programme: A Comparative Efficiency of Fund Utilisation', *SaD*, XIV, 2 (1990), p. 182.

<sup>125</sup> *Ibid.*, p. 181.



has been and still is primarily for consumption rather than sale. Although the latter has been increasing steadily, a substantial proportion of trade in foodstuffs has been informal-undertaken in the many village markets, farmgates, or roadside spot markets where record-keeping has been and still is extremely rare.<sup>126</sup> Available survey evidence suggests, nonetheless, that staple foods have been traded over the years between Ondo State and Western Nigeria's urban centres, especially Lagos and Ibadan.

In the nineteenth century, Ibadan relied on its vassal states as much for food supplies, in the forms of tribute, booty, or commercial exchanges, as for slaves.<sup>127</sup> Reference has been made also to the 1945 order prohibiting *gaari* exports to Lagos from Okitipupa and Ondo Divisions except with the specific permission of the District Officer at Okitipupa. The order was prompted by official alarm at supply shortages and rising prices in Okitipupa and Ondo. Galletti, Baldwin and Dina remarked the 'exchange of foodstuffs...between the cocoa-producing areas and the provinces neighbouring them on the north and east', but the admittedly limited specific information suggest that Ondo Province was importing more yams than it was exporting. In Ikare's eight-day market, 'the largest and possibly second only to Ibadan in the cocoa-producing areas', for example,

[a]bout 900 women were selling yams, which came mainly from Lokoja and probably down the Benue river. Fifty per cent. of the yams purchased were destined for Akure and Ondo, 20 per cent. for Owo, 5 per cent. for Ipetu-Ijesha, and the balance for other places...Ten per cent of the peppers and 80 per cent. of the beans were brought from Oshogbo, probably imported from the north. Most of these were for local consumption, but 15 per cent. went on to Kabba and Lokoja.<sup>128</sup>

Similar comments were made for markets in Ondo and Akure.<sup>129</sup> In Ilesa, in turn,

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<sup>126</sup> Cf. small-scale farming, where record-keeping may have improved slightly as a result of the movement into agriculture of teachers, civil servants, etc., who have retired or been sacked from their positions since the 1970s. Cf. Jane Guyer, 'Small Change: Individual Farmwork and Collective Life in a Western Nigerian Savanna Town, 1969-88', *Africa*, 62, 4 (1992), pp. 465-489.

<sup>127</sup> Falola, *Political Economy*, p. 145f.

<sup>128</sup> Galletti, Baldwin and Dina, *Cocoa Farmers*, p. 62.

<sup>129</sup> *Ibid.*

Galletti, Baldwin and Dina noted

a westward flow of goods to Ibadan and Lagos...Sixty per cent. of the yams from Ekiti and the tract north of Oshogbo were going to Ibadan and Abeokuta. Half the maize from Ekiti was going to Ibadan...Most of the palm-oil was going to Ibadan and Lagos [as] were most of the plantains and rice, both of which were drawn principally from Ekiti.<sup>130</sup>

Güsten surveyed the food trade in Western Nigeria in the 1960s.<sup>131</sup> According to the survey, an estimated 356 tonnes of foodstuff were moved both ways over four days in 1966, between Ondo-Osun/Ife/Ilesa to the west on the one hand, and Ondo-Kabba/Ilorin to the north on the other.<sup>132</sup> About 15,240 tonnes of foodstuff were moved to Lagos and Ibadan from Ondo area (including Auchi and Afenmai Division, now in Edo State) throughout 1966. This total figure includes about 4,065 tonnes each of maize and gaari; 2,540 tonnes of plantain; and 1,015 tonnes each of cassava (including cassava flour) and yam.<sup>133</sup> According to Güsten's estimates, these sales figures amounted to between 2% and 4% of estimated total production in each of the four Divisions, a clear indication, perhaps, of the potential output of Ondo State's food sub-sector.

Güsten's findings cannot be assessed realistically in the absence of more recent data. Nor is it possible to determine the size of food trade between Ondo State and urban markets and even more importantly, food production and trade within the state. Güsten's data suggested, nonetheless, that only a small proportion of local food output got into major urban markets in the 1960s, though foodstuff prices in urban markets had 'frequently' fallen below those in village markets.<sup>134</sup> It follows, therefore, that more of Ondo State's food output was being consumed internally, and that food self-sufficiency at household level has been negligible since the 1960s. Since transport difficulties and transaction costs have eased also since then, it is reasonable to infer that the internal foodstuff market has

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<sup>130</sup> *Ibid.*, p. 63.

<sup>131</sup> Rolf Güsten, *Studies in the Staple Food Economy of Western Nigeria* (München, 1968).

<sup>132</sup> Calculated from *ibid.*, p. 208.

<sup>133</sup> *Ibid.*, p. 249.

<sup>134</sup> *Ibid.*, note 62, p. 63.

been substantial, perhaps more so than that between Ondo and other parts of Western Nigeria. As recent as the 1970s, according to Sara Berry,

most cocoa farmers [were growing] some food crops, but most of my informants said they did not normally produce enough foodstuffs to meet their families' needs, but purchased at least part of the food they consumed.<sup>135</sup>

In theory, that part of local output that is sold outside the state could reduce the size, or alter the composition, of food imports if it was sold locally, since local demand exists (in form of imports from Ilorin and the north). The key question, therefore, is the co-existence of food 'exports' (defined narrowly) and recurrent shortages in Ondo State. The policy response in the 1970s, a spate of short-term official campaigns to encourage garden food farms or flood the market with imported food, assured cheap food for urban areas by increasing supply and forcing down prices.<sup>136</sup>

The same strategies have dominated official strategies in the 1980s and 1990s. In May 1992, for example, a Task Force on Food Supply and Distribution was established to examine the scarcity of food in Ondo state, establish food distribution outlets, and set up strategic food reserves for sale to the public during the annual hungry season.<sup>137</sup> The Task Force comprised the most senior officials of the state's agricultural bureaucracy, perhaps indicating the seriousness of the state's food problem.<sup>138</sup> As in previous

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<sup>135</sup> Berry, *Cocoa*, note 37, p. 71.

<sup>136</sup> Abiodun O. Falusi, 'Agricultural Development: Operation Feed the Nation' in Oyeleye Oyediran (ed.), *Survey of Nigerian Affairs 1976-77* (Lagos, 1981), pp. 55-68; cf. G. O. I. Abalu and B. D'Silva, 'Nigeria's Food Situation: Problems and Prospects', *FP*, 5, 1 (1980), pp. 49-60; and R. K. Udo, *Food Production Strategies and Agricultural Development in Nigeria* (Tokyo, 1982). For wider analysis, see Sara Berry, 'Rural Class Formation in West Africa' in Robert Bates and Michael Lofchie (eds.), *Agricultural Development in Africa* (New York, 1980), pp. 401-424.

<sup>137</sup> *Owena News* (Akure), 17-23 May 1992, pp. 1-2.

<sup>138</sup> *Ibid.* Chaired by the state's Commissioner for Agriculture and Cooperatives, the Task Force had the following as members: Dr. Segun Ige, Acting Managing Director of the state's Investment Holding Co.; Dr. Laoye Adegoke, Marketing Director, Input Supply Co.; Messrs Bisi Taiwo and David Borisade, Members of the state elected legislature (1991-1993); and Mr. J. F. Aluko, Director-General (equivalent to Permanent Secretary) Cabinet and Political Affairs, Governor's Office. The Task Force was to be assisted by committees on purchasing; price intelligence and monitoring; transportation; sales and distribution.

attempts, however, such measures have provided temporary relief but failed pointedly to address the underlying structure of urban-rural relations which gave rise to recurrent food shortages in the first place.<sup>139</sup>

## 2.5 Conclusion

This chapter has shown that the expansion of cocoa cultivation in Ondo State has had far-reaching structural implications on local food production. Evidence on productive resource allocation in Ekiti and Akoko areas in the 1920s and 1930s suggest clearly that land, and therefore labour, was diverted from food to cocoa production, occasioning a recurrent food shortage in the state since the 1930s. Government's initial response to the problem, a nation-wide campaign to increase food production in export crop-intensive areas, was derailed partly by arguments over jurisdictions and partly by the overarching demand on resources of the Second World War. Official concern for the fiscal imperatives of state-led development in the 1950s and 1960s virtually precluded considerations of balance between food and cocoa production. Besides, food shortages have been localised experiences, at least in the sense that politically important urban consumers were relatively unaffected until the 1970s, when the proverbial capacity of peasant farmers to meet urban food demands collapsed from the burden of an ageing and unreproduced peasant population, unfavourable market conditions and ineffectual policy incentives.

Economic historians have not been wrong in ascribing the rise of Western Nigeria's cocoa economy to autonomous peasant action. However, subsequent research has been largely macro-oriented, emphasising the transition's near-universal trade effects rather than its domestic consequences.<sup>140</sup> Even Berry and Clarke, whose research has given greater analytical leverage to unique historical and structural circumstances, have focused ultimately on market-induced institutional adaptation and economic growth. The result has been a largely one-sided argument which has ignored the commercial transition's

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<sup>139</sup> Cf. Michael Lofchie and Stephen K. Commins, 'Food Deficits and Agricultural Policies in Tropical Africa', *JMAS*, 20, 1 (1982), pp. 1-25.

<sup>140</sup> A. G. Hopkins, 'African Economic History: the First Twenty-Five Years', *JAH*, 30, 1 (1989), pp. 160-162.

backwash effects on the local (especially rural) economy. Both analytical perspectives have also emphasised changing relations between national socio-economic units or between sub-national enclaves and the world market to the near-total exclusion of continuity in relations between local urban and rural areas, or between government and rural society generally before and after colonialism.

The position assumed here can be challenged on several grounds. It could be argued, for example, that in Ondo State's land surplus economy, cocoa's displacement effect on food production could only have been marginal, if at all significant. Such negative effects as existed could have reflected transient labour supply difficulties rather than permanent historical patterns. As indicated on page 38, the evidence discussed in the chapter related to the 1930s and 1940s, there being little specific evidence on resource allocation in the 1950s to the 1970s. Since there has been no report so far of large-scale malnutrition or famine in Ondo State's cocoa belt, the case for shortfalls in local food production might seem weaker than has been suggested here. It might also appear inconceivable that in the 1940s and 1950s, small-scale farmers would have sacrificed their consumption needs in the pursuit of cash from cocoa production.<sup>141</sup> Above all, the decision by farmers to shift resources from food to cocoa production is economically rational and consistent with crop specialisation and division of labour. Their behaviour would have encouraged comparative advantage, prompting farmers in the savanna areas to expand food-crop production as some accounts of the 1930s and 1940s have suggested.<sup>142</sup> In short, one might wonder why so much analytical capital has been made of a problem which the price mechanism *may* have resolved in the fullness of time.

The above criticisms are valid but no less difficult to justify factually than my interpretation. The lack of evidence on the allocation of land and labour between cocoa and food crops since the 1950s, or on food output and trade in Ondo State over a longer time frame, is certainly problematic. But it is part of the wider question of the availability

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<sup>141</sup> Cf. Güsten, *Studies*, p. 62.

<sup>142</sup> Cf. Forde, 'Native Economies', pp. 86-87.

and/or reliability of data on Nigeria's economy and society, noted in chapter 1.<sup>143</sup> Still, the localised character of food shortages, or the absence of famine and/or malnutrition at the wider level, does not make less real the problem of food deficits in Ondo State. To assume the contrary is to imply that problems are unreal except at macro-societal or regional level, or as a full-blown crisis. If, as available information has suggested, Ondo State has relied on food imports year on year, a key question for future research is to determine the structural circumstances under which a potential food basket has remained a food-deficit area. If substantial trade in foodstuffs exists, as it has in the present case, more focused research on local commercial opportunities and the terms of trade with urban markets might help explain why Ondo State has moved back and forth between plenty and want soon after the harvest season.

It is necessary, in this regard, to avoid the fallacy of misplaced concreteness, to distinguish real-life experiences from the tools employed by researchers to make sense of data generated by or from the experiences. As Sara Berry has remarked, 'rationality reflects the interplay of preferences and expectations, both of which are subjectively determined and expressed and, hence, not subject to independent observation.'<sup>144</sup> The comparative advantage principle is equally an analytical tool, more an *ex-post facto* rationalisation of behaviour than a consistent variable in real-life individual economic behaviour.<sup>145</sup> Reverend Phillips' advice to Kolajo, that 'he and his children would never suffer' if he planted cocoa,<sup>146</sup> was most probably based on 'the belief that no food grower can make as much [money] as the cocoa farmer'<sup>147</sup> than on hard-nosed analysis of price information. Price information was in any case a luxury in rural Ondo State up

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<sup>143</sup> Cf. Mosley, 'Policy-Making Without Facts.

<sup>144</sup> Sara Berry, 'The Food Crisis and Agrarian Change in Africa: A Review Essay', *ASR*, 27, 2 (1984), p. 70.

<sup>145</sup> For a similar argument, see A. G. Hopkins, 'Africa's Age of Improvement', *History in Africa*, 7 (1980), p. 151; and 'The World Bank in Africa: Historical Reflections on the African Present', *World Development*, 14, 12 (1986), p. 1477; cf. Michael Lipton, 'Game Against Nature: Theories of Peasant Decision Making', in John Harriss (ed.), *Rural Development* (1982), pp. 258-268.

<sup>146</sup> Berry, 'Christianity', p. 443.

<sup>147</sup> Forde, 'Native Economies', p. 87.

to the 1930s, when cocoa-growing provided many with the one most effective opportunity for incorporation and participation in the formal economy. The expansion of market-based exchange generally and supportive institutions (e.g. marketing societies) since the 1930s has reduced transaction costs in the cocoa sub-sector. But pervasive illiteracy; the lack of access to, or disregard of, extension advice; and the material benefits of export crop over food production have all remained or in some cases intensified. These factors have often overshadowed longer-term personal and social costs of cocoa growing, encouraging farmers to plant cocoa even in the savanna parts of the state. In any case, the choice between cocoa and food production is more likely to have been made more by 'satisficing' than after explicit cost-benefit analysis of the type presumed by academic economists.<sup>148</sup> Indeed, a new wave of cocoa planting (including rehabilitation of existing plots) may have started since the mid-1980s, prompted by expectations that the large, uncompetitive increases in producer prices occasioned by Nigeria's structural adjustment programme would be sustained in future.

It is true that food crops have been grown on farmland with immature cocoa trees as a short-term measure.<sup>149</sup> However, cocoa farms are hardly ever cultivated deeply enough to make their yield potential attractive as yam plots (on which more in chapter 5).<sup>150</sup> Hence, only labour-saving crops, such as cocoyam, plantain, cassava and maize, less regarded than yams on the local diet, are usually planted on cocoa plots.<sup>151</sup> Still, the consumption requirements of cocoa-farming families are likely to have stretched available labour supply, more so because Ondo State is a labour-scarce economy and because food production among the Yoruba is customarily undertaken by males.<sup>152</sup> In any case,

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<sup>148</sup> Cf. S. Tomori, 'The Relevance of Economic Science to Nigerian Economic Development', *NJESS*, 21, 1-3 (1979), pp. 33-56.

<sup>149</sup> Berry, *Cocoa*, p. 6; cf. Polly Hill, *The Migrant Cocoa Farmers of Southern Ghana* (Cambridge, 1963), p. 188.

<sup>150</sup> O. T. Faulkner and J. R. Mackie, *West African Agriculture* (Cambridge, 1933), p. 106; O. T. Faulkner, 'Experiments on Ridged Cultivation in Tanganyika and Nigeria', *TA*, XXI, 9 (1944), pp. 177-178.

<sup>151</sup> Cf. Galletti, Baldwin and Dina, *Cocoa Farmers*, p. 234; p. 183.

<sup>152</sup> Forde, 'Native Economies', pp. 78-79; Jane Guyer, 'Food, Cocoa, and the Division of Labour by Sex in Two West African Societies', *CSSH*, 22, 3 (1980), pp. 355-373.

neither division of labour nor crop specialisation could be said to have developed substantially in Ondo State's (or even Western Nigeria's) cocoa belt.<sup>153</sup> More research is in fact necessary to determine whether cocoa-growing is consistent with food production in the long term.

Above all, the expansion of cocoa-growing in Ondo State in the 1920s and 1930s, and associated activities are epochal economic-historical events, perhaps only second in their sweeping impact to colonialism itself. To regard them as transient incidents because of the lack of micro-level evidence is to deny the permanence of economic change and, in addition, turn one generation of research in Yoruba economic history on its head. It is clearly inconceivable that cocoa-induced institutional and strategic innovations by Yoruba peasants, about which leading economic historians like Berry and Hopkins have written, were prompted by short-term macro-economic considerations and subject to erratic price-led change.

To sum up, the substance of urban-rural relations in Western Nigeria has not changed significantly since pre-colonial times, regardless of changes in the articles of trade and in the socio-political context of trade relations. Between the 14th and 19th centuries, various parts of the state were ravaged by externally-induced violence and dominated by different imperial powers, including Benin, Ilorin, Ibadan, and Bida.<sup>154</sup> As vassal or tributary states, Ondo State's communities transferred productive resources, in the form of men taken as slaves or conscripted to fight the invader's war, food and other supplies to support the imperial administration, and economic losses occasioned as much by violence as by the external control of trade relations.

One long-term effect of this experience has been late development, defined as a situation in which wider historical and structural factors preclude local control over the character and speed of socio-economic change in a community. Late development also puts a

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<sup>153</sup> See e.g., Galletti, Baldwin and Dina, *Cocoa Farmers*, p. 66.

<sup>154</sup> An extreme example being Itaji country, whose population is said to have been reduced by over ten times in as many decades to 1934. N. A. C. Weir, 'Intelligence Report on Itaji District, Ekiti Division, Ondo Province', CSO 26/29800, NAI, p. 2.



community 'one model behind' its more privileged neighbours, encouraging decision-makers in the former to conceive their community in the idealized image(s) of the latter.<sup>155</sup> Indeed, ODSG did draw 'from the repertoire of an *earlier phase* of...history'<sup>156</sup> in the wake of Nigeria's structural adjustment programme in 1986. Among other things, the government established the Ondo State Farmers' Congress, ostensibly as a 'farmers' lobby', authorising it to collect a fixed levy on every kilogramme of cocoa sold throughout the state. Proceeds from the levy have been employed subsequently to fund real estate development, including a five-star hotel and secretariat complex, at Akure, the state capital.<sup>157</sup> In effect, the state government, acting through the Congress, re-introduced the fiscal mechanisms of the 1940s and 1950s to corner part of structural adjustment-induced increases in producer incomes in the 1980s. As one senior official told me, there was nothing wrong in (re)building Akure, the state capital, on the back of cocoa farmers since Ibadan and Ikeja were built by the same means!<sup>158</sup>

Cocoa-growing has merely transplanted and reinforced pre-colonial patterns of urban-rural relations in colonial and post-colonial Western Nigeria, albeit with the more acceptable seal of commerce and trickle down. Rimmer's reference to 'the cocoa barons of the West' in support of the World Bank's 'mutual benefit' view of export agriculture<sup>159</sup> depicted popular perceptions of cocoa-induced prosperity in Western Nigeria in the 1950s and 1960s and again in the late 1980s. Bauer has employed the same argument to support the view that colonialism had occasioned an economic miracle in

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<sup>155</sup> Jane Guyer, 'British, Colonial and Post-Colonial Food Regulation, with reference to Nigeria: An Essay in Formal Anthropology', *Working Papers in African Studies* N<sup>o</sup> 158 (Boston, 1991), p. 15.

<sup>156</sup> *Ibid.*, p. 2.

<sup>157</sup> Olufemi A. Akinola, 'The Politics of Farmer Organisation in Ondo State, Southwestern Nigeria in the 1980s', paper presented at the International Conference on Cocoa and Economic Development in the 19th and 20th Centuries, London, September 1993.

<sup>158</sup> Interview, April 1992.

<sup>159</sup> Douglas Rimmer, 'Development in Nigeria: An Overview', in Henry Bienen and V. P. Diejomaoh (eds.), *The Political Economy of Income Distribution in Nigeria* (New York, 1981), p. 39.

Ghana and Nigeria.<sup>160</sup> Such relationships are valid in so far as macro-statistics are concerned, but they have failed to take account of the long-term social costs of the private benefits associated with export agriculture. They have also masked important differences in the distribution of the costs and benefits of cocoa growing between different sectors of the economy and between urban and rural areas.

As individuals, Ondo State's cocoa farmers have benefited in proportion to their increasing share of total output in the 1950s and 1960s and of producer prices until the 1960s. More importantly, perhaps, they or their offspring also benefited from Western Region's welfare programmes of the 1950s and 1960s. Still, the region had the most aggressive government-led development programme in Nigeria at the time.<sup>161</sup> The programme's decisive urban inclination also meant that Ondo State had received less as a grouping of commodity-producing villages than its cocoa farmers gained as individuals. The state has in any case remained a net exporter of surplus to urban centres and importer of food. Ekiti-Akoko ADP was designed primarily to address the technical aspects of Ondo State's food production problem. But the World Bank's participation in the project has also reinforced existing patterns of urban-rural relations by adding an international dimension to urban-inclined policy initiatives in Ondo State's food sub-sector. The remainder of this dissertation highlights the continuing urban bias in official responses to the food problem in Ondo State and analyzes small farmers' responses to the entire spectrum of programmes promoted by the Ekiti-Akoko project in the 1980s.

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<sup>160</sup> Peter Bauer, 'The Economics of Resentment: Colonialism and Underdevelopment', *Journal of Contemporary History*, 4, 1 (1969), pp. 51-71.

<sup>161</sup> Compare O. Teriba, 'Development Strategy, Investment Decision, and Expenditure Patterns of a Public Development Institution: the Case of Western Nigeria Development Corporation, 1949-1962', *NJESS*, 8, 2 (1966), pp. 235-258; with G. K. Helleiner, 'The Eastern Nigeria Development Corporation: a Study in Sources and Uses of Public Development Funds, 1949-1962', *NJESS*, 6, 1 (1964), pp. 98-123; and 'A Wide-Ranging Development Institution: The Northern Nigeria Development Corporation, 1949-62', *NJESS*, 6, 2 (1964), pp. 239-257.

## Chapter 3

### The World Bank in Ondo State, 1981-92

#### 3.1 Introduction

This chapter examines the constitutive and regulative environment of World Bank presence in Ondo State in the 1980s. The literature on Bank activism in Third World agriculture and rural development has expanded since the 1970s<sup>1</sup> and may be classified into three main groups. The first is illustrated by articles in *Finance and Development*, the International Monetary Fund's in-house journal. Contributors have often emphasised the Bank's global viewpoint and those of its associate agencies on urban and rural poverty, agriculture and rural development, as well as the sanctity of their procedures on project design, appraisal, and evaluation. They have often stressed the need for market-oriented policies and have been sanguine about the capability of Bank programmes to accelerate institutional change and economic development.<sup>2</sup>

The second category of literature has been more critical of Bank activities and accomplishments. Scholars in this group often examine how structural variables *within* host countries have, in effect, excluded small-farmers from benefiting directly or proportionately from Bank investment in agriculture and rural development. The Bank's underlying perception of the poor, it has been argued, has persisted regardless; hence, the suggestion by Ernest Feder and Susan George, among other scholars, that the Bank and international agribusiness have been policy dictators of sorts or at least engaged in a conspiracy against Third World peasants since the 1970s.<sup>3</sup> According to Payer,

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<sup>1</sup> For a review, see Gavin Williams, 'The World Bank and the Peasant Problem', in Judith Heyer, Pepe Roberts, and Gavin Williams (eds.), *Rural Development in Tropical Africa* (1981), pp. 16-51.

<sup>2</sup> See the following contributions in *FaD*: M. Yudelman, 'Integrated Rural Development Projects: the Bank's Experience', 14, 1 (1977), pp. 15-18; Mahbub ul Haq, 'Changing Emphasis of the Bank's Lending Policies', 15, 2 (1978), pp. 12-14; Edward Jaycox, 'The Bank and Urban Poverty', 15, 3 (1978), pp. 10-13; Warren Baum, 'The World Bank Project Cycle', 15, 4 (1978), pp. 10-17; and Leif Christoffersen, 'The Bank and Rural Poverty', *ibid.*, pp. 18-22.

<sup>3</sup> Ernest Feder, 'The New World Bank Programme for the Self-Liquidation of the Third World Peasantry', *JPS*, 3, 3 (1976), pp. 343-354; Susan George, *Ill Fares the Land* (Washington, 1984); and Robert Ayres, *Banking on the Poor* (Cambridge, Mass., 1984).

...the real aim of [the Bank's] smallholder programs is the destruction of what is left of so-called subsistence production and the integration of all agricultural lands into the commercial sector through the production of a "marketable surplus" of cash crops [i.e. farm produce sold for cash], for the domestic market or for export.<sup>4</sup>

The validity of the above position is beyond dispute. But Payer and other proponents of similar views may have unwittingly oversimplified the causal chain by ascribing so much to Bank influence. Rather than regard it as a policy dictator, the third perspective conceives the Bank as a *hobbled giant*,<sup>5</sup> global in outlook but lacking its own executive agency as well as 'the institutional capacity to assist the poorest even if [or where it] had wanted to do so.'<sup>6</sup> Bank influence on development thinking and policy, the argument goes, is invariably effected through or mediated by the state's machinery. To this extent, the Bank is no more effective or efficient than the respective national-state system has made it.

Scholars of Nigerian agriculture and political economy differ on the extent to which programme outcomes are influenced by the Bank or by local circumstances. The most vocal view has been espoused by marxist or marxian academics and supported largely by macro data or northern Nigeria material. With varying intensity and analytical rigour, these scholars have suggested that the Bank's increased presence in Nigerian agriculture since the 1970s have reflected a global campaign to 'self-liquidate' the peasantry in order to promote capital-intensive agriculture.<sup>7</sup> This implies, however, that Nigerian peasants have been, or remain *fundamentally opposed* to capitalist agriculture, a position neither

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<sup>4</sup> Cheryl Payer, *The World Bank* (New York, 1982), p. 220.

<sup>5</sup> Stanley Please, *The Hobbled Giant* (Boulder, 1984).

<sup>6</sup> Paul Clough and Gavin Williams, 'Decoding Berg: The World Bank in Rural Northern Nigeria', in Michael Watts (ed.), *State, Oil and Agriculture in Nigeria* (Berkeley, 1987), p. 171.

<sup>7</sup> See J. P. Olinger, 'The World Bank and Nigeria', *ROAPE*, 13 (1978), pp. 101-107; Zuwaqhu Bonat and Yahaya Abdullahi, 'The World Bank, IMF and Nigeria's Agricultural and Rural Economy', in Bade Onimode (ed.), *The IMF, the World Bank and the African Debt*, Vol. 2 (1989), pp. 153-176; R. A. Alkali, 'The World Bank: Financing Rural Development and the Politics of Debt in Nigeria', *AD*, XVI, 3/4 (1991), pp. 163-179; E. E. Ekong, 'The Role of the World Bank in Nigerian Agricultural Policy', *AD*, XVII, 3 (1992), pp. 65-98; Maikudi Karaye, 'Hausa Peasants and Capitalism: A Case Study of Rural and Agricultural Development in Kano State in Nigeria', Ph.D thesis, University of Wisconsin-Madison (1990), pp. 103-142; and Okechukwu Ibeanu, 'The Deteriorating Condition of the Nigerian Peasantry', in Okwudiba Nnoli (ed.), *Deadend to Nigerian Development* (Dakar, 1993), pp. 124-153.

wholly supported by the history of export-crop production nor admitted to by most proponents. What is commonly acknowledged is that the Nigerian state has exhibited considerable autonomy vis-a-vis international agencies since the 1970s.<sup>8</sup>

A second view has been concerned less with the ideological undercurrents of policy than the need to increase total factor productivity in small-scale agriculture. According to this view, held by agricultural economists at Ibadan University and other institutions, Bank presence might well be a price worth paying to make peasant food-farmers more responsive to technical change or to market incentives.<sup>9</sup> As Wells has argued, however, the above distinctions are different interpretations of similar phenomena and may have overstated disagreement on the means rather than the ends of policy. In fact, few have questioned the need for technical change in peasant production or the decisive capitalist inclination of agricultural policy in post-colonial Nigeria.<sup>10</sup> Bank-assisted food-crop programmes have channelled more support to medium and large-scale farmers than to peasants, lending further credence to a disaggregated view of Nigerian agrarian policy.<sup>11</sup>

The position adopted here is pragmatic. It is assumed that Bank operations are themselves no more promotive or less inhibitive of socio-economic development than local state initiatives.<sup>12</sup> Under specific circumstances, either or both could constitute a problem as

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<sup>8</sup> As in (i) the nationalisation of British Petroleum's production and marketing facilities in 1978, following Britain's 'intransigence' on Zimbabwe's independence, and (ii) negotiations with the International Monetary Fund and the Bank on economic reform in the 1980s. On the latter, see T. Parfitt and Stephen Riley, 'Nigeria: The Circuitous Path to Stabilization?', in *idem*, *The African Debt Crisis* (1989), pp. 48-74; and Thomas Callaghy, 'Lost Between State and Market: The Politics of Economic Adjustment in Ghana, Zambia, and Nigeria', in Joan Nelson (ed.), *Economic Crisis and Policy Choice* (Princeton, 1990), pp. 269-270; pp. 303-316.

<sup>9</sup> See Jerome Wells, *Agricultural Policy and Economic Growth in Nigeria 1962-68* (Ibadan, 1974); S. O. Olayide et al., *Perspectives on Benin-Owena River Basin Development* (Ibadan, 1979); J. A. Eweka et al., *Village Development* (Ibadan, 1979); and S. O. Olayide, J. Eweka, and V. Bello-Osagie (eds.), *Nigerian Small Farmers* (Ibadan, 1980).

<sup>10</sup> Gavin Williams, 'Ideologies and Strategies for Rural Development: A Critique', in his *State and Society in Nigeria* (Ibadan, 1980), pp. 135-136. Originally published as 'Rural Underdevelopment', in E. O. Akeredolu-Ale (ed.), *Social Development in Nigeria* (Ibadan, 1977), pp. 251-275.

<sup>11</sup> Gavin Williams, 'The World Bank in Rural Nigeria Revisited', *ROAPE*, 43 (1988), pp. 42-67.

<sup>12</sup> Cf. John Toye, 'Can the World Bank Resolve the Crisis of Developing Countries?', *JID*, 1, 2 (1989), pp. 261-272.

well as a solution. Effective implementation or delivery systems are *not* substitutes for appropriate policies, but management and administrative constraints could turn carefully designed development programmes into spectacular disasters. In any case, bank-funded programmes are often initiated by borrower-countries and subject to local macro-economic policy decisions. The state also bears primary responsibility for 'the organisation of internal political and economic affairs'.<sup>13</sup> It seems appropriate, therefore, to emphasise state manoeuvring, or the lack of it, within the constraints and opportunities offered by Bank loan and project conditions.

What follows analyzes the politics of IRD project design and management in Nigeria, with EAADP and ODSADEP as reference points. Four specific tasks are attempted. The first is to examine how EAADP's finances were affected by Nigeria's declining economic fortunes in the 1980s. The second is to consider how measures intended to protect project operations from the crisis were affected by relationships between project management and the local agricultural and rural development bureaucracy. Third, the strategy of local state officials in mobilising popular support for EAADP, and how that strategy encouraged unrealistic expectations by the project's public, are discussed. Finally, the chapter explores divergence and convergence between EAADP and ODSADEP on the one hand, and between both projects and their contemporaries in other parts of Nigeria on the other. It also emphasises how structural arrangements that apparently sprang from lessons of experience with earlier ADPs, and were intended to help overcome expected problems actually became problematic in EAADP's circumstances.

The chapter is divided into four main sections. The next section puts EAADP and ODSADEP's budgets in the perspective of Bank operational guidelines as well as Nigeria's changing economic fortunes in the 1980s. Section three discusses the populist roots of the crisis of expectations on the part of EAADP's farming public while section four describes day-to-day administration and management in the project. A final section concludes the discussion.

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<sup>13</sup> Keith Hart, *The Political Economy of West African Agriculture* (Cambridge, 1982), p. 2.

### 3.2 Financing EAADP and ODSADEP

Ekiti-Akoko ADP was expected to absorb US \$80.5 million (N48.2 million at the 1978 official rate) in running costs and investment over its initial five-year investment period, beginning in 1981. Of this sum, costs were estimated at N15.0 million (or 31.1% of total outlay) while investment in buildings, machinery, and other infrastructure was to account for N33.2 million or 68.9% of total outlay. Funds were to be contributed in different proportions by the Bank, the federal government, and the state government (ODSG). The Bank's 40% share of total expenditure came in form of a loan in foreign exchange. The federal government (FGN) was to provide grants amounting to 25% of EAADP's total budget, leaving ODSG with 35%.

Similar cost-sharing arrangements were made for ODSADEP at its launch in 1989. Its total budget of US \$33.4 million was to be contributed by the Bank, the federal government and ODSG but in radically different proportions. The World Bank was to provide 73% of ODSADEP's through the International Development Association (IDA), its soft-credit arm,<sup>14</sup> leaving FGN and ODSG with 16% and 9% respectively. Unlike in Ekiti-Akoko, however, 'beneficiaries' (i.e. farmers) were expected to contribute 1.5% of ODSADEP's total costs.

Table 3.1 presents data on funding for EAADP and ODSADEP, allowing preliminary comparative inferences to be drawn about both projects and bringing into bold relief the financial aspects of changes that swept through Nigerian agriculture in the 1980s. Although relatively low, the 1.5% expected contribution to ODSADEP's funds by its 'beneficiaries' reflects movement away from administrative to market-based funding; it also signals the introduction into Nigerian agriculture of the efficiency principle of user fees.<sup>15</sup> The problem, though, is that the change was prompted more by official cost-cutting than by the quest for greater fiscal discipline in the public sector. Small-farmers were thus likely to be worse off, since the abuses occasioned by privileged access to

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<sup>14</sup> R. T. Libby, 'International Development Association: A Legal Fiction Designed to Secure an LDC Constituency', *International Organisation*, 29, 4 (1975), pp. 1065-1072.

<sup>15</sup> David Leonard, 'African Practice and the Theory of User Fees', in John Howell (ed.), *Recurrent Costs and Agricultural Development* (1985), pp. 130-145.

official channels by middle peasants and business-farmers would have remained intact.

**Table 3.1**  
Sources of EAADP and ODSADEP's Funds (US \$ million)

(1) Agency	(2) EAADP		(3) ODSADEP		(4) Combined budget	
	Budget	%	Budget	%	Total	%
World Bank <sup>a</sup>	32.4	40.0	24.4	73.0	56.8	49.9
FGN	20.2	25.0	5.5	16.4	25.6	22.5
ODSG	27.9	35.0	3.0	9.1	30.9	27.2
Beneficiaries	-	-	0.5	1.5	0.5	0.4
Total	80.5	100.0	33.4	100.0	113.9	100.0

Note: <sup>a</sup> Bank assistance for ODSADEP routed through International Development Association.

Sources:

Col. (2): EAADP, 'Brief on EAADP from Inception to October 1986.'

Col. (3): ODSADEP, 'Ondo State Implementation Strategy for the Achievement of the National Agricultural Policy', Internal Briefing Paper (1992), p. 2.

Col. (4): Computed.

Bank contribution also increased dramatically between the two projects, from 40% to 73%. Its share of total planned expenditure for both projects averaged 50%. Increasing Bank financial commitment to IRD in Ondo State also coincided with the reduction in FGN and ODSG's share of costs. The federal government's 25% share of EAADP's budget declined to about 16% for ODSADEP and averaged 22% for both projects. The state government's projected contribution declined even more sharply from 35% for EAADP to 9% for ODSADEP, averaging 27% for both projects. The Bank's increased financial commitment to ODSADEP is also likely to have been matched out by its higher structural leverage on Ekiti-Akoko ADP.

Funds from each source were tied to specific expenditure items or categories.<sup>16</sup> The state government's contributions were to be used to pay local staff salaries, procure basic infrastructure and meet other recurrent expenses while federal grants were earmarked for capital development and input procurement, including the cost of local transport and subsidies. The latter costs were to be shared with the state government. Major foreign currency-denominated expenses, such as input procurement and capital costs, were to be

<sup>16</sup> Cf. Adefolu Akinbode and J. Y. Yayock, 'Recurrent Financing of Agricultural Services in Nigeria's Agricultural Development Projects', in Howell, *Recurrent*, p. 192.



funded jointly by FGN and the Bank. But proceeds from Bank credit were to be expended on a higher proportion of capital expenditure on infrastructure and technical equipment, including plants, vehicles, and spare parts; and on consultancy fees, etc.

**Table 3.2**  
**Allocation of EAADP's Credit (by expenditure category)**

Nº	Loan/Expenditure Category	SAR <sup>a</sup> allocation (US \$m)	Reimburse- ment rate (%) <sup>b</sup>	% of total credit <sup>c</sup>	% of total planned expenditure
i.	Civil works	7.8	40	24.0	9.7
ii.	Plant, vehicles, road making equipment, spare parts	7.2	90-100	22.2	8.9
iii.	Salaries and allowances of international staff, consultancy services, overseas training	6.7	100	20.6	8.3
iv.	Fertilizer, chemicals, agricultural equipment, other farm implement	7.5	85-100	23.1	9.3
v.	Unallocated	3.3	-	10.2	4.1
Total		32.5	63	100.1	40.3

Notes: <sup>a</sup> Staff Appraisal Report, the World Bank's preview of project operations.  
<sup>b</sup> Proportion of expenditure refundable by the Bank in respect of each item or category.  
<sup>c</sup> Entries do not add up to 100 because of rounding.

Source: Christensen, *EAADP Final Report* (Ikole-Ekiti, 1984), p. 133.

Table 3.2 sets out the allocation of Bank credit for EAADP and suggests three important points. The first concerns the distribution between the Bank and the respective governments of the proportion of expenditure to be borne by each in respect of agreed items. The salaries and allowances of internationally recruited staff, consultancy services and overseas training [item iii in Table 3.2] had 100% reimbursement rate. Corresponding rate for plants, vehicles, and spare parts [item ii] was between 90% and 100%; that of fertilizer, chemicals and other inputs was 85%-100%. At only 40%, civil works had the lowest reimbursement rate but accounted for 24% of loan funds and about 10% of total planned expenditure. Yet, by their very nature, the construction of buildings, roads, culverts and bridges offered immediate benefit to locals, including wage employment and expanded demand for food. It seemed therefore that more foreign funds were allocated to the project's internal needs than to its public - necessary evidence for

the view that a project's primary task is to channel aid to programme components that best promote donor countries' supply capacity.<sup>17</sup>

Secondly, disbursements from the project loan were available only as counterpart or matching funds, or as reimbursement for expenses already incurred on project activities. This is a standard condition in Bank loan agreements which has enabled the Bank to determine when and under what conditions to make funds available to which borrower(s).<sup>18</sup> Since the counterpart clause was unknown in earlier Bank agreements with Nigeria, for example the second cocoa project in 1974, it must be assumed that it became operative from the 1980s, when declining oil incomes forced Nigeria to reduce funding for ADPs.<sup>19</sup> By 1981/82 fiscal year, insufficient funding for Nigeria's ADPs had become so commonplace that the Bank sought and obtained more stringent conditions, including an undertaking by some state governments to allow the Federal Government to deduct subventions due to their ADPs from source. This arrangement was subsequently written into ADP loan agreements between Nigeria and the Bank.<sup>20</sup> Designed ostensibly to protect ADPs from politically-motivated denial of funds, the arrangement created a lien on the incomes of the state governments concerned.

The counterpart arrangement applied at EAADP, and the Bank did not create a lien on Ondo State's share of federally-allocated revenue. But severe cash shortages occasioned largely by ODSG's poor disbursement rate occasioned greater difficulties for the project. By 1982, eighteen months into project operations, the state government had disbursed only N1.0 million, about 30% of its share of project budget for the first year. In turn, the federal government exceeded projected disbursement rates by 39%, providing the bulk of EAADP's funds for the year. By the end of 1982, only 14% of credit projected for

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<sup>17</sup> Hans Gsänger, *The Future of Rural Development* (1993), p. 7; G. Honadle and Jay K. Rosengard, 'Putting 'Projectized' Development in Perspective', *PAAD*, 3, 4 (1983), p. 302.

<sup>18</sup> IBRD, 'Loan Regulations No. 3, Applicable to Loans made by the Bank to Member Governments', February 15, 1961 as amended February 9, 1967, pp. 6-7.

<sup>19</sup> Akinbode and Yayock, 'Recurrent', p. 192.

<sup>20</sup> *Ibid.*, p. 194.

the year had been drawn,<sup>21</sup> though another document put the figure at 19.5%.<sup>22</sup> Either way, four-fifths of credit earmarked for EAADP's operations in 1981/82 remained unwithdrawn by the end of the period. By the end of 1982, the situation had become precarious enough to force a re-negotiation of the project budget with the Bank.

In February 1983, an agreement (known in project nomenclature as the Kaduna agreement/budget) was reached on a new budget to avert the total collapse of project operations. Three main changes were made to the original project budget by the agreement. The first was that EAADP's five-year investment phase was extended by one fiscal year from 1981-1985 to 1986. This gave the state government more time to meet its financial obligations to EAADP. Subject to improved fund allocation, the extension could have enabled EAADP to make more efficient use of its credit. The arrangement implied, however, that ODSG's poor fund disbursement had been due in some way to insufficient time, and that the problem would be resolved over time. As I show below, this was clearly mistaken, for it assumed away the deeper structural roots of ODSG's cash crisis.

Second, the state government was allowed to turn over to EAADP part of its Development Loan Stock in lieu of anticipated cash contributions. About 41% (N6.4m) of the N15.7 million due from ODSG for the remainder of EAADP's investment phase was so converted. In theory, this reduced existing pressure on government cash while enabling the project to raise funds from the capital market. In practice, however, the project was little more than a newly established parastatal in the eyes of the investing public. The stocks on offer were also the state government's and could attract only as much funds as the private sector was willing to invest in ODSG's business. Given the limited opportunities for commerce and industry in the local economy, Ondo State has been everything but an exciting investment proposition. In the event, only N2.2 million or one-third of the amount anticipated under the Kaduna budget had been raised from this source by June 1984. Finally, a substantial sum was redistributed between expenditure

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<sup>21</sup> Computed from Jens Christensen, *EAADP Final Report* (Ikole-Ekiti, 1984), pp. 130-131.

<sup>22</sup> EAADP, 'Brief on EAADP from Inception to October 1986' (Ikole-Ekiti, n.d.), Appendix II.

categories to concentrate cash on crucial areas of project activity and increase momentum of project development in what may be called cross-subsidisation.

Columns 3 and 4 of Table 3.3 present the original and re-negotiated budgets, with cross-subsidised values shown in bold letters to facilitate comparison. A total of US \$8.8 million, or 27% of project credit, was shuffled between expenditure items in two related processes. The first was the reduction by US \$2.8 million of the SAR's residual or 'unallocated' category (item vi) and the corresponding transfer of the sum to civil works (item i). This increased the original SAR provision for civil works by 36% and left the residual category with only US \$0.5 million. The reimbursement rate for civil works was also raised from 40% to 70%. Since civil works encompass construction of physical infrastructure like warehouses and stores, the additional provision could have facilitated the establishment of the project's operational infrastructure.

**Table 3.3**  
**Re-allocation of EAADP's Credit, 1983 (by category)**

(1) N <sup>o</sup>	(2) Loan/Expenditure Category	(3) Original budget		(4) Re-negotiated budget	
		Allocation (US \$m)	Reimburse- ment rate (%)	Allocation (US \$m)	Reimburse- ment rate (%)
i.	Civil works	<b>7.8</b>	40.0	<b>10.6</b>	70.0
ii.	Plant, vehicles, road making equipment, spare parts	7.2	90.0-100.0	7.2	90.0-100.0
iii.	Salaries and allowances of international staff, consultancy services, overseas training	6.7	100.0	6.7	90.0-100.0
iv.	Salaries of local (direct) staff	-	-	<b>6.0</b>	50.0
v.	Fertilizer, chemicals, agricultural equipment, other farm implement	7.5	85.0-100.0	<b>1.5</b>	85.0
vi.	Unallocated	<b>3.3</b>	-	<b>0.5</b>	-
Total		32.5	79.0-85.0	32.5	77.0-84.0

Source: same as Table 3.2.

Secondly, the vote for fertilizer, chemicals, and agricultural equipment (US \$7.5m, item vi) was reduced by four-fifths. The amount involved, US \$6.0 million or 18.5% of total

project credit, was transferred to Local Staff Salaries (item v). This left the fertilizer and farm implement expenditure category with only one-fifth of the original vote but enabled EAADP to include local staff salaries among items with foreign exchange 'cover'. Regular and prompt payment of salaries could have boosted staff morale at a time when public servants were being owed up to six months' wages in some states, including Ondo. But the arrangement only applied to staff recruited directly by or on behalf of the project and excluded 'assigned staff', those seconded from existing government departments for more or less fixed terms. Since, as I show below, the latter constituted up to two-thirds of senior staff, and averaged 47% of EAADP's total staff complement in 1981-86, the Kaduna agreement in effect discriminated against a statistically and structurally significant segment of project personnel.

The agreement remained subject to the Bank's counterpart principle. This effectively tied potential improvement in EAADP's fortunes to increased funding by the state government. Nigeria's worsening macro-economic circumstances after 1982, and the cost of ODSG's free education and health programmes clearly whittled down the Kaduna agreement's initial potential. By June 1984, three years into project life, ODSG had disbursed less than one-fifth of its share of total project budget. The federal government had released over 50% of its projected contribution while 36% of Bank credit had been withdrawn. Disbursements from all sources amounted to 36% of planned total expenditure.<sup>23</sup> At the end of EAADP's extended investment phase in 1986, the federal government had met 93% of its contribution while the Bank and ODSG met only 55% and 29% respectively (Table 3.4). At slightly over half of expected levels, total investment from all sources was similar to the Bank's disbursement rate, suggesting that 'the rate of loan disbursement [was] positively correlated with the extent of the contributions of [Ondo] State and Federal Governments.'<sup>24</sup>

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<sup>23</sup> Computed from *ibid.*, Table 46, p. 132.

<sup>24</sup> APMEPU, *EAADP Completion Report, Vol. I, Main Report* (Benin-City, 1986), p. 15.

**Table 3.4**  
**Planned and Actual Investment in EAADP, 1981-86 (by source, current N'm)**

Source	Planned investment (N'm)		Actual investment (N'm)		Actual as % of planned investment
	Amount	% of total	Amount <sup>a</sup>	% of total	
Ondo State Govt.	16.7	35.0	4.8	17.9	28.7
Federal Govt.	12.1	25.0	11.3	42.1	93.4
World Bank	19.4	40.0	10.7	40.0	55.0
Total	48.2	100.0	26.8	100.0	55.6

Note: <sup>a</sup> ODSG's contribution included N2.2 million development stock, but excluded building and equipment (N1.6m) and seconded staff salaries (N3.242m).

Source: EAADP: 'Brief on EAADP'.

In view of the above, it is not surprising that poor funding was a primary constraint on Ekiti-Akoko ADP. Apart from occasioning delays and loss of momentum in a sector in which operations are particularly time-sensitive, the project was also obliged to pay a commitment charge on the undisbursed balance on its credit account. The commitment charge is not new in Nigeria's credit transactions with the Bank. Article II Section 2.05 of Nigeria's second cocoa loan agreement states that 'a commitment charge at the rate of three-fourths of one per cent (3/4 of 1%) per annum on the principal amount of the Loan not withdrawn *from time to time*'.<sup>25</sup> In EAADP's case, however, the charge was payable on any balance of the project loan that was '*at any time unspent*'.<sup>26</sup> It is difficult to put a precise value on EAADP's losses from the charge or from its poor financial state. As a former Project Manager told me, however, the commitment charge possibly did more harm to EAADP's finances than the nominal interest rate on Bank credit.<sup>27</sup> Indeed, since that three-quarters of project credit was never withdrawn, let alone employed productively, the charge is likely to have formed a substantial part of project losses estimated at N5.0 million or 10% of total planned expenditure.<sup>28</sup>

<sup>25</sup> IBRD, 'Loan Agreement (Second Cocoa Project) Between Federal Republic of Nigeria and International Bank for Reconstruction and Development' (October 11, 1974), p. 5. Emphasis added.

<sup>26</sup> Christensen, *Final Report*, p. 132. Emphasis added.

<sup>27</sup> Interview, March 1992.

<sup>28</sup> Christensen, *Final Report*, p. 132.

### **3.3 Populism and EAADP's Crisis of Expectations**

Before examining Ekiti-Akoko ADP's institutional framework, it is necessary to consider the role of the general farming public in the project's constitutive environment. How were EAADP's objectives presented to its potential beneficiaries and the general public? How was the farming population mobilised prior to project implementation? In attempting to answer the foregoing questions, this section discusses what EAADP meant to the man in the street, how official campaign strategies helped create that popular imagination, and the implications of both for project performance.

Public opinion formation about EAADP revolved around assumed or perceived want-get gaps, or levels of socio-economic deprivation in Ondo State's farming community. Although all development projects are designed to address this problem, officials made much from prevailing interpretations of deprivation in Ondo State by emphasising how Bank assistance for EAADP and the project's transformatory potential would help close the want-get ratios in the project area. But this reinforced the civil servant's conception of state agencies as 'champions of rural cultivators', overstated EAADP's potential and encouraged an erroneous view of its objectives and operations by the general public.

Claims that EAADP represented a new dimension in World Bank activity in Ondo State's agricultural economy could be justified. Before the 1980s, Bank involvement in the state had been limited to cocoa rehabilitation and oil-palm production - reflecting official concern at the decline in both crops since the late 1960s. As 'the first comprehensive Bank investment in food crop development in Ondo State',<sup>29</sup> Ekiti-Akoko ADP provided a welcome assistance on the state's food production difficulties, discussed in chapter 2. Its enclave orientation also promised a concentration of support services over a relatively small geographical area straddling Ondo State's savanna and forest vegetations, with demonstration effects expected well beyond the enclave.

From a wider viewpoint, EAADP stood over and above its contemporaries in terms of cost or the foreign (loan) component of its planned total expenditure. The commitment

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<sup>29</sup> IBRD, *EAADP Staff Appraisal Report* (1980), p. 1.

by the bank of US \$32.5 million in loans to EAADP clearly puts it ahead of each and every one of its antecedents, amounting as it does to 13.5% of total Bank loan commitments (\$241.5 million) to Nigeria's nine enclave ADPs, including Ekiti-Akoko (Table 3.5). The sum committed to EAADP also accounts for 7.3% of all agricultural sector loans (19 loans totalling US \$442.7 million) granted to Nigeria by the Bank up to 1980. In relative terms, no single agricultural project embarked upon in Nigeria with World Bank assistance (25 projects, Bank credit totalling US \$1,130.0 million) between 1971 and 1983 attracted, or was planned to attract, as much Bank funding as Ekiti-Akoko (Table 3.5).

**Table 3.5**  
**World Bank Agricultural Sector Loans to Nigeria, 1971-83 (US \$ million)**

No.	Year	Purpose/Project	Amount <sup>a</sup>
1.	1971	Western State Cocoa Project	7.2
2.	1971	2nd Western State Cocoa Project	20.2
3.	1974	Funtua ADP	29.0
4.	1974	Gusau ADP	19.0
5.	1974	Gombe ADP	21.0
6.	1974	Rice Production: Anambra, Imo and Cross-River States	17.5
7.	1974	Livestock	21.0
8.	1975	Nucleus Oil-Palm Estate/Smallholders Project: Ondo State	17.0
9.	1975	Ditto: Bendel State	29.5
10.	1975	Ditto: Imo State	19.0
11.	1977	Lafia ADP	27.0
12.	1977	Ayangba ADP	35.0
13.	1979	Bida ADP	23.0
14.	1979	Ilorin ADP	27.0
15.	1979	Rivers Oil-Palm Project	30.0
16.	1979	Forestry Plantation Programme	31.0
17.	1979	Agricultural and Rural Management Training Institute (ARMTI)	9.0
18.	1980	Oyo North ADP	28.0
19.	1980	Ekiti-Akoko ADP	32.5
20.	1981	Bauchi ADP	132.0
21.	1981	Kano ADP	142.0
22.	1981	Technical Assistance	47.0
23.	1982	Sokoto ADP	147.0
24.	1983	Agricultural Development	81.3
25.	1983	Kaduna ADP	138.0
Total			1,130.0

Note: <sup>a</sup> Approved but not necessarily disbursed credit.

Computed from: World Bank, *EAADP Staff Appraisal Report* (1980), pp. 4-5; FGN, 'A Decade of ADPs in Nigeria' (Lagos, 1986); Editor, 'Agriculture and Oil-Based Accumulation', in Watts, *State*, p. 79.



The exemptions to this apparent rule of thumb are four ADPs and two technical assistance programmes in the agricultural sector, but all four differ significantly from Ekiti-Akoko ADP. Since the four ADPs (in Bauchi, Kano, Sokoto, and Kaduna States) commenced operations between 1981 and 1983 as state-wide projects, the higher average Bank assistance could be justified by their presumably wider territorial scope. Similarly, the Federal Agricultural Co-ordinating Unit (FACU) and the Agricultural Projects Monitoring, Evaluation, and Planning Unit (APMEPU), both established under a technical assistance programme with the Bank, are extra-ministerial agencies with Nigeria-wide functional responsibilities. FACU co-ordinates agricultural policy implementation while APMEPU is responsible for strategic planning and monitoring of Nigeria's ADPs. Finally, rent-seeking and outright plunder of public funds by the elite has had a cost-push effect on public sector projects, but the impact of this generalised problem on individual ADPs is difficult to assess.

The World Bank loomed large in projections of EAADP's potential to the general public. Bank involvement (or its articulation) facilitated the legitimation and acceptance by the public of the project idea. But it also raised expectations that became unattainable in practice. Official pre-implementation campaigns in rural Ondo State made great store of the global alliance of forces that EAADP symbolised. Rural development was rationalized to the less discerning public as *Ìgbé ayé rere fun ìgbèríko* - the good life in rural areas; or better still, as *Ìgbé ayé rere fun àwọn àgbèè wa* - higher living standards for *our* farmers, with emphasis on the collective pronoun *our* to suggest common destiny or common interests between poor farmers and a benevolent state supported by 'progressive' rural and urban elites.<sup>30</sup> The bank itself was referred to in vernacular as *Bánkì àgbáyé* and, for good effect, as *Bánkì àgbánlá ayé*. In ordinary circumstances, *Àgbáyé* and *Àgbánlá ayé* both depict the physical expanse and diversity of the universe. But the latter hints at infinite physicality, suggesting that the World Bank *normally* deals with an incredibly large number of demands for assistance, and sensitizing Ekiti-Akoko farmers to the 'good luck' that they have had in obtaining Bank funding for EAADP. In this frame, the Bank was not a hard-nosed commercial institution, rather a charity whose long

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<sup>30</sup> Personal knowledge. As a co-operative inspector, I attended many farmers' meetings in the late 1970s at which these claims were made by several co-operative leaders.

caring hands *could* reach, and finally *did* reach, Ondo State's northernmost fringes.

To sum up, EAADP's popular image contrasted sharply with its design objectives and operational mode. Official documents left no doubt that the project's commercial orientation was designed to change the status quo in small-scale production, but the public was encouraged to regard it as a reinforcement of the peasantry. This fitted various depictions of the project as '[a] champion of the small farmer',<sup>31</sup> a *Farmer's Friend*, as EAADP's in-house newsmagazine was titled; or the symbol of God's intervention to ensure that Ekiti-Akoko farmers obtained their share of increasing local and global expenditure on rural development. To be sure, this distorted view of ADPs extended well beyond Ondo State, accounting at least in part, for political pressure during the 1980s to abandon the enclave strategy altogether and transform existing enclave projects into state-wide projects.<sup>32</sup> But a combination of unrealistic expectations and not-too-compatible interests compounded EAADP's uniquely difficult financial and operational circumstances. As the next section shows, the project's internal structures were no less afflicted.

### 3.4 Project Administration and Management

Ekiti-Akoko ADP was designed as a semi-autonomous agency, its parallel structures to be supervised nominally rather than controlled directly by or through the ministry of agriculture. In theory, this could 'insulate the project from the country in general and from the rest of...[Ondo State's] public sector in particular'.<sup>33</sup> Autonomy also enables a project to 'benefit from a clearer orientation towards achieving visible and measurable results within a specified time frame...the greater coincidence in formation and implementation of work programs and a shorter chain of command'.<sup>34</sup> In fact, however, the quest for project autonomy has often created more problems than it has solved by

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<sup>31</sup> Payer, *World Bank*, p. 208.

<sup>32</sup> Francis Idachaba, 'Institutional Arrangements for Self-Sufficiency in Food Production in the 1990s', Public Service Lecture, NIIA, Lagos, 21 August 1990, p. 5.

<sup>33</sup> Albert Hirschman, *Development Projects Observed* (Washington, 1995 ed.), p. 154.

<sup>34</sup> Uma Lele, *The Design of Rural Development* (Baltimore, 1975), p. 129.

making relations between project authorities and cognate departments more crucial to day-to-day project administration than the structures established specifically for that purpose. This section describes EAADP's decision-making structures, showing how presumably sincere attempts to overcome administrative and structural problems associated with Nigeria's public sector occasioned greater difficulties for the project.

The project's institutional framework comprised three main organs, namely, the Agricultural Projects Governing Board, the Technical Advisory Committee, and the Project Management Unit.<sup>35</sup> Of the three, the Agricultural Projects Governing Board (APGB, or the Board) was formally the most important. Established by legislation, APGB had overall control of Ondo State's agriculture and rural development policy, with express powers to 'coordinate the work of Ministries and Agencies and organisations involved in carrying out the agricultural projects of the State and to oversee the progress of the projects.'<sup>36</sup> The Board was also expected to award contracts and 'ensure common conditions of service'<sup>37</sup> in all projects, including Bank-assisted programmes on afforestation and cocoa regeneration; a seed multiplication unit, and ODSG's 'agricultural development project'. Finally, APGB mediated project-government relations, each Project Manager reporting to the Commissioner for Agriculture through it while APGB itself reported through him to the State Executive Council.

The Board's membership seemed to be broad-based enough for a policy organ. With the Commissioner for Agriculture and Rural Development as chairman, APGB comprised five nominees of the State Governor, the Permanent Secretary of the Agriculture Ministry, one representative each from the Ministries of Finance, Works and Transport, the Federal Ministry of Agriculture, and from 'coopted agencies'. But its wide-ranging remit included rival projects, raising questions about the Board's even-handedness. Several ex-EAADP officials, including the Project Manager, argued that APGB was far

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<sup>35</sup> Cf. IBRD, *Rural Development* (n.p., 1988), p. 78f.

<sup>36</sup> Ondo State Legal Notice N<sup>o</sup> 38, *Ondo State of Nigeria Official Gazette*, 5, 9 (1980), p. 86.

<sup>37</sup> O. Famoriyo, 'Organisation and Management', in APMEPU, *EAADP Completion Report, Vol.II* (Benin-City, 1986), p. 3.

too concerned with political interest-balancing to be an objective umpire, and that wider concerns embraced by the Board often imposed substantial losses on EAADP.<sup>38</sup> The inclusion of the co-opted membership from unspecified agencies also allowed for an expanded APGB but provided potential sinecures for government's partisan supporters. Both possibilities were intensified, albeit in different ways, by the lack of commitment to the ADP concept by Ondo State's elected government in 1979-83 and the establishment in 1988 of the Ondo State Farmers' Congress (on which more in chapter 10). In fact, APGB held 45 meetings over 59 calendar months, their frequency declining steadily from about monthly in April 1980 to September 1983 to less than five in eight months after April 1984.<sup>39</sup>

The Technical Advisory Committee (TAC or the Committee), illustrates the depth of bureaucratic oversight on Ekiti-Akoko ADP. In one sense, TAC represented an essential continuity with EAADP's past, having formed the nucleus of the project's planning secretariat as the Agricultural Projects Planning Committee, with a remit that included all assisted projects in Ondo State. Its metamorphosis however constituted an avoidable anachronism from the viewpoint of project autonomy. Established to advise APGB on technical issues, including agronomy and infrastructure, the Committee's membership comprised the cream of Ondo State's agriculture ministry, including its Permanent Secretary as chairman; seven heads of divisions (i.e. Agriculture, Veterinary, Forests, Fisheries, Produce, Engineering, Rural Development, and the Secretary for Finance and Administration); and two APGB members. In principle, other officials, including those from the project, could be coopted into the Committee as and when necessary, but cooptation is not quite the same as full-fledged membership. The Committee could and most probably did serve as a counterpoint to APGB's seeming political partisanship. But it was dominated by officials most likely to have projected the civil service orientation in project-related decision-making, or at least resolved conflict-of-interest situations in favour of the civil service, because their departments' responsibilities overlapped with project functions. In short, TAC may have compounded EAADP's difficulties by adding

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<sup>38</sup> Interviews, January-April 1992; Christensen, *Final Report*, pp. 119-120.

<sup>39</sup> EAADP, *Internal Completion Report*, p. 3.

bureaucratic partisanship to APGB's political partisanship, or bringing in through the back door the very traditions negating project autonomy.

The Ekiti-Akoko Project Management Unit (EAPMU, or the Unit) was the most crucial and, ironically, the most paralysed project institution. As the organ responsible for day-to-day administration, EAPMU was the focal point of operational decisions. The Unit was also responsible for promoting local participation in project decision-making; as such, it provided a meeting point for all project-related interests, including senior project personnel, representatives of local farmers and supervisory agencies. Yet, as shown below, sharp contradictions in the objective interests and outlook of these groupings made EAPMU an improbable coalition, a symptom and an underlying cause of the project's social and operational difficulties.

In theory, PMUs existed at project and local government levels, bringing together respective senior project personnel and representatives of cognate agencies and farmers. The project-level PMU comprised the Project Manager as chairman; his Deputy, and heads of sub-programmes, that is Agriculture; Monitoring and Evaluation; Engineering; and Extension. Also included were two farmers from each of five LGAs, a representative of the host local government authority, the ministry of agriculture, two coopted members (including at least one from FACU), and a Secretary. In turn, local PMUs operated as committees comprising respective heads of the project's main divisions (i.e. agricultural extension, cooperatives, mechanical engineering, and poultry); a project Zonal Officer; representatives of the local government and education authorities; five farmers; and one coopted member. A chairman was selected from amongst the members.

In practice, local PMUs were little more than executive bodies of project headquarters. Project-level PMU membership also included the most strategic project positions, a normal practice in ordinary circumstances. In EAADP's case, where all such positions were occupied by expatriates, PMU's membership excluded the project's understudies, themselves senior officials seconded to the project as part of plans to improve local management capacity and sustain the project sub-culture beyond EAADP's investment phase. This was potentially self-destructive to the project since it denied invaluable hands-

on training to its future managers.<sup>40</sup> But the puzzle was compounded by acrimonious relations between DARUDEC's management team and the indigenous complement of EAADP's staff on the one hand, and on the other by different approaches to farmer organisation by staff seconded from the departments of agriculture and cooperatives respectively.<sup>41</sup> I shall return to this issue in section 5 of chapter 4.

The problem derived largely from ODSG's attempt to eat its cake and keep it. As indicated above, EAADP's commercial orientation was contrary to expectations by Ondo State's farming public and existing patterns of government-administered programmes. Still, the state government was not inclined to incorporate it as a private company. This left open the single firm approach favoured by the Bank, whereby the project would be run by a consulting firm,<sup>42</sup> but ODSG contracted Copenhagen-based DARUDEC, rather than a local firm, to run the project from 1981 to 1984. As a foreign concern, DARUDEC probably had a greater potential to help improve staff management skills than a local consulting firm, but this depended on whether the project recruited fresh staff directly or relied on those seconded from existing government agencies.

The former option meant a wider scope for the acquisition of new skills while the latter was cheaper financially. Apart from putting at project's disposal as much of ODSG's existing human resources as was possible, project responsibility for seconded staff salaries was limited to incentives - fixed at one additional salary grade level and after 1986, at 15% of gross salaries. Secondments also offered new opportunities for local staff from a wide spectrum of the public service to acquire new technical, commercial and management skills. These skills could be invaluable in subsequent non-project postings, for example by helping to overcome red-tape and inertia as well as facilitate the integration of project sub-culture into the policy machine. However, secondments often create its own organisational problems. Seconded staff usually have to keep one of their

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<sup>40</sup> *Ibid.*, p. 5.

<sup>41</sup> Interviews with ex-project staff, including Project Manager (30/3/92) and two Commercial Managers (on 31/3/92 and 30/4/92).

<sup>42</sup> IBRD, *Staff Appraisal Report*, para. 8.08.

legs in their original agencies for reasons of career progression. In a context in which civil servants normally keep their jobs for life, the choice has often been between a temporary posting and long-term security of tenure, giving rise to divided loyalty and weakening the host organisation's control over reward and punishment.

In EAADP's case, seconded staff were easily the most dominant both in statistical and structural terms. In 1982, assigned staff accounted for 63% out of a total staff complement of 480, leaving direct staff with only 37% of the total staff complement (Table 3.6). The assigned staff ratio declined subsequently to just over 40% as from 1983 and fell below 30% in 1986, partly because of increased staff recruitment by the project and partly because EAADP's initial allure had subsided and seconded staff had returned to their substantive posts. Still, assigned staff remained significant statistically at an annual average of 46.5% in 1981 to 1986, while direct staff averaged 53.5% per annum.

**Table 3.6**  
EAADP: Staff Disposition by Origin, 1981-86

Year	Total staff complement	Assigned		Direct	
		N <sup>a</sup>	% of total	N <sup>a</sup>	% of total
1981	307	286	93.2	21	6.8
1982	480	302	63.0	178	37.0
1983	718	318	44.3	400	55.7
1984	726	301	41.5	425	58.5
1985	707	272	38.5	435	61.5
1986	516	127	24.6	389	75.4
Average <sup>a</sup>	576	268	46.5	308	53.5

Note: <sup>a</sup> Unweighted mean per annum.

Source: EAADP, *Internal Completion Report*, p. 7.

A substantial component of senior project staff, including most understudies, also belong to the assigned staff category. In 1981, EAADP's total staff complement stood at 307, comprising 246 junior staff (on salary grade levels 01 and 06 of Nigeria's public service salary scheme), 53 senior indigenous staff and 8 expatriates.<sup>43</sup> Assigned staff for that year totalled 286, forty more than the total complement of junior staff for the same year.

<sup>43</sup> EAADP, *Internal Project Completion Report*.

The difference is most certainly attributable to assigned staff in senior project positions. In fact, assigned staff accounted for two-thirds of all established senior project (including expatriates') posts, or three-quarters of positions occupied by indigenous staff in 1981. By 1982, EAADP had increased its staff complement by 173 or 56% over the level for 1981. About 91% (or 157) of newly recruited staff belonged to the direct staff category while only 16 (or 9%) were assigned. Of all newly recruited staff, 164 (or 95%) were junior while 9 (5%) were senior, of which only one was expatriate. Even if it was assumed that only half of senior staff recruited in 1982 was seconded from existing agencies, at least 63% of all senior project posts and up to 70% of all such posts occupied by indigenous personnel in 1982 would still have been held by assigned staff.

The large presence of assigned staff however brought its own difficulties. Two major project attributes became problematic, namely, the large foreign component of management personnel and differentials in pay and working conditions between expatriates and local senior staff. Under the terms of the consultancy agreement, DARUDEC was responsible for recruitment into 14 senior posts, including those of Project Manager, Chief Accountant, Commercial Manager, Cooperative and Credit Specialist and Workshop Manager.<sup>44</sup> The agreement did not specifically assign any of these posts to Nigerians, but DARUDEC agreed informally, according to internal documents, to appoint Nigerians into nine posts and expatriates into the remaining five. The mix was altered subsequently to eight Nigerians and six expatriates, but an understudy programme was to be pursued to enable Nigerians to take over all expatriate positions.<sup>45</sup>

Contrary to this informal agreement, DARUDEC reportedly manoeuvred the state government to back its preferred complement of 13 expatriates and one Nigerian, a Senior Extension Officer. Still, DARUDEC's staffing performance was inadequate, for it failed to fill all posts in the 'new' expatriate quota, recruited inappropriately qualified

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<sup>44</sup> EAADP, 'Agreement for Consultancy Services Between the Ministry of Agriculture and Rural Development Ondo State and Danish Rural Development Consultants (DARUDEC) Copenhagen-Denmark' (August 1981), Appendix C.

<sup>45</sup> EAADP, *Internal Completion Report*, p. 5.



staff, and above all, could not retain the services of appointees in the project. According to official reports, the Project Manager held a masters degree in agriculture as required, but his practical experience was limited to a family farm. The Chief Accountant was 62 years old at the time he was employed; moreover, his resume did not indicate that he possessed any accounting qualification. Only one of five appointees into the Chief Agricultural Officer's (CAO) post in six years had 'satisfactory agricultural research background to be able to supervise and articulate agricultural research results for the purpose of supporting the extension component.'<sup>46</sup> Others found it difficult to adjust to local social circumstances or get on with indigenous staff.

This occasioned a remarkably high turnover of key (expatriate) staff, which, as Idachaba has shown in a wider context, often encourages inertia and operational inefficiency.<sup>47</sup> For example, three expatriate CAOs served the project in as many years to 1984. The first was allowed to spend part of his sabbatical leave at EAADP, staying for six months to September 1982; the second spent ten months, leaving in July 1983, while the third, designated as Deputy Chief Agricultural Officer, held the post from September 1982 to December 1984.<sup>48</sup> By 1986, the headship of each of Planning, Monitoring and Evaluation; Training and Information Services; and Agriculture and Technical Services had changed four times respectively, while that of Engineering changed five times. Even the headship of project administration, held by locals from the Governor's Office, changed three times in four years: the first Chief Administrative Officer (CADO) spent three months only, the second left the project after eight months, while the third held office for 27 months.<sup>49</sup> This meant an average tenure of one year for each CADO.

High expatriate turnover created a vicious circle in relations between expatriates, local staff, and the state government. On the one hand, frequent premature departures by

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<sup>46</sup> C. O. Iwueke, 'Adaptive Research', in APMEPU, *EAADP Completion Report*, Vol. 1, p. 25.

<sup>47</sup> Francis Idachaba, 'Sustainability Issues in Agricultural Development', in Ted Davis and Isabelle Schirmer (eds.), *Sustainability Issues in Agricultural Development* (Washington, 1987), p. 20; and 'Institutional Arrangements', pp. 18-20, p. 21.

<sup>48</sup> Famoriyo, 'Organisation', p. 22.

<sup>49</sup> *Ibid.*, p. 15.

expatriates raised expectations or even muted demands that some locals be appointed into substantive management posts to stabilize project operations. But DARUDEC seemed to prefer to recruit expatriates even on short tenures. On the other hand, such demands implied that DARUDEC expatriates were not providing good value for money, making them feel insecure and worsening relations between them and their understudies. The state government was effectively trapped between the two sides, unable to take a firm stand because *any* decision would have been interpreted as a breach of contract by DARUDEC or a sell-out by dissatisfied civil servants. In the event, ODSG chose the line of least resistance by refusing to fill vacant posts at all. No appointment was ever made to the post of Chief Extension Officer or of Agricultural Superintendent, senior and intermediate positions respectively in the extension division. The Chief Commercial Officer's post was vacant for seventeen months in a row, from April 1983 to August 1984; otherwise it was held in acting capacity until March 1986, six months to the end of the project's investment period. The government's minimalist option meant that all Nigerian staff in the Project Management Unit by 1984 had been with the project for less than one year.<sup>50</sup>

The second issue concerned double standards on staff salary and working conditions and may very well explain ODSG's seeming impotence. Expatriates' salaries and perks were fantastic and written into the consultancy agreement while, as noted above, local staff were initially granted one additional salary grade level over and above their civil service salaries. Expatriates' basic pay ranged from N3,796.88 and N4,374.87, plus a fixed allowance of N1,560.00 per month.<sup>51</sup> This amounted to an annual gross of between N64,282.56 and N71,218.44. Moreover, expatriate salaries were indexed to Danish inflation figures and denominated in Kroner, while their perks were indexed to Nigeria's all-urban CPI. These might seem unimportant since one Kroner exchanged for only N0.086 at the time, but due account must be taken of the Naira's over-valuation as well as expatriates' non-wage perquisites like free, well-serviced accommodation and chauffeured cars. Nigerian senior staff also enjoyed some of the latter benefits, but this

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<sup>50</sup> *Ibid.*, p. 8.

<sup>51</sup> EAADP, 'Consultancy Services'.

did little to close the disparity in the project's reward structure. On the contrary, government rejected DARUDEC's request to denominate in Danish *Kroner* the salary of the Nigerian on its team, leaving him with an annual N17,040 or 37.4% of expatriates' lowest basic pay. Government thinking in Nigeria, as elsewhere in Africa, seemed to be that harmonisation would have further set apart the extension officer from his colleagues in the ministry, creating a groundswell of discontent in the civil service that could have forced a re-think of public sector remunerations.

It is against this background that relations between expatriates and local staff became a war of nerves in which each party deployed resources at its disposal to subvert or undermine the other. Perhaps conscious of their numerical and social disadvantages, expatriates sought self-preservation by keeping indigenous senior staff well away from decision-making. One of their tactics was to deny local staff access to deliberations at management meetings by failing to keep or circulate minutes of proceedings for at least two years.<sup>52</sup> Access to the Staff Appraisal Report, which as noted previously was the World Bank's preview of EAADP's operations, was equally prevented,<sup>53</sup> making it impossible for local staff to compare actual performance with official projections and possibly blame expatriates for whatever gaps existed. Yet a third 'weapon' was to frustrate counterpart training of Nigerian understudies. According to many participant-officials, this was to ensure that the understudies would not be ready to take over project management in 1984, and impliedly, to provide sufficient justification for DARUDEC's consultancy contract to be extended. A DARUDEC-induced conspiracy against local staff and the project itself, so clearly implied in this view, is not necessarily supported by the facts. It seems more plausible that DARUDEC's tactics reflected unseemly staff relations at the project. For example, counterpart training could hardly have been successful where, as in EAADP, the trainees were largely contemptuous of their trainers because the latter were short on formal qualifications and because of resentment occasioned by management structures and working conditions skewed in expatriates' favour.

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<sup>52</sup> Interviews with ex-project staff.

<sup>53</sup> Famoriyo, 'Organisation'; APMEPU, *EAADP Completion Report*, p. 10.

However, DARUDEC's balance sheet was far from impressive. The firm presided over a regime in which more money was spent on administration and consultancy than on more directly productive project activities. As Table 3.7 shows, management and administration took nearly 17% of actual total expenditure, more than double its projected share and 80% over and above the sum allocated in the SAR. This suggests a relative lack of management control, especially since EAADP was not paying basic salaries to assigned staff. Similarly, consultancy fees were three times larger than their projected share of total expenditure, overshooting the budget by a staggering 135%. In contrast, commercial services took about two-fifths of projected share of total expenses and was undersubscribed by 68%; training had 71% of its projected share of total expenditure but ended up with 41% underspending; while monitoring and evaluation took 62% of its expected share of total expenditure and just over half of its SAR budget. Certainly, EAADP's finances could have been better managed.

**Table 3.7**  
**EAADP: Planned and Actual Expenditure by Component ('000 current Naira)**

(1) Component	(2) SAR budget		(3) Actual Expenditure		(4) Index (SAR=100)
	Amount	% of total	Amount	% of total	
Project Management & Admin.	3,071.4	7.7	5,514.0	16.5	179.5
Monitoring & Evaluation	821.7	2.1	433.2	1.3	52.7
Commercial Services	12,372.5	30.9	3,957.8	11.9	32.0
Training	1,411.0	3.5	829.5	2.5	58.8
Agric. & Technical Services	8,032.9	20.0	6,625.1	19.8	82.5
Engineering	13,960.4	34.8	15,070.6	45.1	108.0
Consultancy	414.0	1.0	970.5	2.9	234.4
<b>Total</b>	<b>40,083.9</b>	<b>100.0</b>	<b>33,400.7</b>	<b>100.0</b>	<b>83.3</b>

Source: APMEPU, *EAADP Completion Report*, Vol. III, p. 168.

The choice, however, was not simply between DARUDEC expatriates and local understudies or any Nigerian-led management team for that matter. The problem lay in the relative lack of political commitment to the ADP concept at the state level, and in a mixture of frustrated ambitions and bruised egos on the part of DARUDEC and local staff alike. That this was the case became apparent after mid-1984, when DARUDEC's consultancy contract expired and expatriate managers left the project. The military had taken over government in early 1984, in itself necessary reason to expect greater resolve,

especially since military regimes have traditionally had relatively less complex political constituencies.

Naturally, local staff took over project management in acting capacity. The state government also appealed to the World Bank for further extension by two years of the investment phase to enable it draw down the loan account. For eighteen months after August 1984, however, government failed to make substantive appointments to key management positions, including some which had been vacant under DARUDEC. A primary reason was that a state government, least of all a poor one like Ondo's, could not have taken unilateral action on public sector salaries or offered new packages outside the existing reward structure to attract skilled manpower from the private sector.

Yet, in early 1985, ODSG established a holding company, the Agricultural Production Holding Company, to serve as an umbrella house for six other crop or function-specific companies.<sup>54</sup> Government's equity participation in the latter companies was to be limited to 25% while private investors were to provide the remainder; they were also to seek commercial transactions throughout the country. But government also offered directors' posts and private sector salaries to officials who had just retired from senior civil service jobs and whose commitment could not be vouchsafed since they were not shareholders. Junior officers were also transferred en masse, in some cases compulsorily, from the ministry to the same companies.<sup>55</sup> These changes were effectively nullified by the advent in 1986 of Nigeria's economic reform programme and the publication two years later of a new agricultural policy which prohibited direct production activities by public sector agencies. But while they existed, the new companies were run by people with very little business experience or inclination, many of whom had taken up the jobs because they had no choice.<sup>56</sup> The state government also set up rival, albeit aggressively pro-market, ventures against EAADP, perhaps adding to low morale among project staff and the

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<sup>54</sup> These companies were Agricultural Mechanisation Co.; Food Crops Production Co.; Tree Crops Production Co.; Integrated Livestock Co.; Fish Production Co.; and Processing, Storage, and Marketing Co.

<sup>55</sup> Interviews, February to April 1992.

<sup>56</sup> Interviews, February to April 1992.

project's loss-making position. Government's underlying mistake, it seemed, was to assume that institutional replacement offered solutions to recurrent performance gaps, and that new mechanisms could succeed where older ones failed without changes in the operational context or prior answers to the question why existing performance targets were not met in the first instance.

In March 1986, government finally made substantive appointments into project positions. But it was too little too late. The appointees, most of whom came from the Ministry of Agriculture, saw themselves more as career civil servants than project officials. In the absence of DARUDEC or other relatively autonomous entity in the immediate project environment, there was no incentive for new appointees to change the sub-culture 'of inertia and excessive red-tapism' which they brought with them from their civil service backgrounds.<sup>57</sup> Government also had no compelling reason not to meddle in project decision-making.<sup>58</sup>

Above all, official attitudes to EAADP-type projects had changed. The World Bank gave notice and eventually withdrew effective participation in the Ekiti-Akoko project. At the local level, enclave projects were transformed to state-wide projects, more on account of political pressure than the successes of respective pilot schemes.<sup>59</sup> In 1989, ODSADEP emerged as the single institution with responsibility for agriculture and rural development programmes throughout Ondo State. In pursuit of that goal, the entire extension division (both structure and personnel) of the state's ministry of agriculture was transferred to ODSADEP in 1991/92. By precluding one major ground for staff secondments, ODSADEP has avoided one of EAADP's organisational pitfalls. But the new structure has re-instated the pre-EAADP status quo in several respects and seems to have been adopted in order to be in step with wider opinion and certainly before the full potential of project autonomy had been realised at the policy level. What remains to be seen is

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<sup>57</sup> Olajumoke Mordi, 'Organisation of ADP Management in Nigeria: Ekiti-Akoko ADP Case Study', in A. Sanda (ed.), *Corporate Strategy for Agricultural and Rural Development in Nigeria* (Ibadan, 1988), p. 94.

<sup>58</sup> Interview with ex-Project Manager.

<sup>59</sup> Idachaba, 'Institutional Arrangements', p. 5.

whether project autonomy was worthwhile in Ondo State, or indeed whether the new arrangements would result in more efficient delivery of extension services than in the 1980s.

### 3.5 Conclusion

This chapter has examined three main issues in Ekiti-Akoko ADP's constitutive and regulative environment. These are macro-economic difficulties and their impact on project financing; local state strategies to mobilise support for the project and their effects on public expectations; and the quest for project autonomy both as a principle in itself and as a strategy to improve technical, commercial and managerial capacities of local staff. In one sense, the project and the state government were both victims of changes in Nigeria's economic fortunes in the 1980s. Similarly, public opinion-formation about EAADP's operations reflect official campaign strategies as much as they highlight continuing social preferences for a welfare state. The one issue over which the project seemed to have had complete control was internal administration, yet, deep conflict between ODSG's desire for an efficient project framework and its cost-cutting measures and civil service-based resistance to expatriate control made a total mess of EAADP's day-to-day administration.

In general, project attempts to wrestle control over aspects of public policy from government departments have often been easier to conceive than to accomplish. As Hirschman observed,

conflicts [have] arise[n]...when[ever] projects disturb, by design or inadvertently, the political, social, or- most frequently- the bureaucratic status quo...the central administration [has been] naturally reluctant to relinquish power or to accept establishment of a new activity somewhat removed from its direct control.<sup>60</sup>

Moreover, projects have typically offered better salaries and incentives than the civil service and/or prompted an 'elitist project administration...that is not capable of

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<sup>60</sup> Hirschman, *Projects*, p. 48; p. 155.

establishing rapport with the normal administrative structure.’<sup>61</sup> This has often exacerbated the potential for conflict by making tenured civil service jobs relatively unattractive in the short term, or, where applicable, by stimulating superior-inferior relations between indigenous and expatriate staff. The result has been a two-sided conflict-ridden framework which has, on average, undermined short-term feasibility as well as long-term sustainability of project goals.<sup>62</sup> First, the civil service had usually sought to control project decision-making remotely, for example through bureaucratic delays of decisions on staffing, budgets, or other forms of government assistance; or by manipulating access to political functionaries by project officers. Secondly, ‘the dissatisfaction of [indigenous] staff’ has usually been intensified by the tendency for

management practices of the project authorities to gravitate towards the style of the expatriate expert...[creating a] vicious circle [in which] initial staffing problems; poor working conditions; and inadequate training given to the available indigenous staff and, hence, inadequate incentive for them to remain in project[s] [have] left...project authorities with few, if any, [indigenous] employees in management positions and with a concentration of expatriate manpower at project headquarters.<sup>63</sup>

In the present case, civil service-based opposition to project autonomy was expressed initially through pseudo-nationalist opposition to DARUDEC, the Danish firm contracted to run Ekiti-Akoko ADP for the first three years. This position was reinforced subsequently by wider concerns about the ‘high...social and economic externalities from...the situation whereby a foreign firm of consultants manage a Nigerian Agricultural Development Project, especially where it is possible to employ qualified indigenous staff...’.<sup>64</sup> The problem lay, however, with government reluctance to bridge ‘the disparity in remunerations between public and private sectors’<sup>65</sup> and, following that, the absence in Nigeria’s public services of the business orientation required in a time-bound production project. Project management therefore reflected a complex mix of factors,

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<sup>61</sup> Lele, *Design*, p. 129.

<sup>62</sup> Cf. Honadle and Rosengard, ‘“Projectized” Development’.

<sup>63</sup> Lele, *Design*, p. 132.

<sup>64</sup> Mordi, ‘Organisation’, pp. 94-95.

<sup>65</sup> Famoriyo, ‘Organisation’, p. 7.



including unseemly relations between DARUDEC and local staff; and the apparent effects on project sub-culture and management of the scheme under which civil servants were seconded to EAADP from existing agencies, notably the ministry of agriculture and the Cooperative Societies Division. Intended primarily as a cost-cutting measure, the latter arrangement created conditions which reinforced directly or indirectly the ‘back to the ministry lobby’, an influential but largely nebulous grouping dedicated to maintaining the civil service’s traditional pre-eminence in the policy sphere.<sup>66</sup>

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<sup>66</sup> Idachaba, ‘Sustainability’, p. 46.

## Chapter 4

### Infrastructure Development, 1981-92

#### 4.1 Introduction

This chapter examines project performance on the construction and maintenance of productive infrastructure in rural Ondo State over the 1981-92 decade. Nigeria's ADPs have usually emphasised two sub-types of infrastructure, physical and socio-institutional.<sup>1</sup> Physical infrastructure comprises three major elements, namely irrigation dams or dug-out wells to assure water supply for all-year round farming; farm service centres (FSCs) for more efficient distribution of inputs and other services; and rural and feeder roads to facilitate the movement of people and goods, including farm produce, in and out of the rural areas.

In turn, social-institutional infrastructure encompasses a variety of rural economic and social groupings, including home-town self-help groups,<sup>2</sup> traditional *esusu* (savings and credit) associations,<sup>3</sup> or formal co-operative societies.<sup>4</sup> In theory, formal cooperatives have been the preferred option in project-type schemes, but many groups have been loose conglomerations of individuals or 'temporary banding together of farmers for the expediency of securing credit packages'.<sup>5</sup> Either way, farmers' and other economic

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<sup>1</sup> Federal Department of Rural Development, 'Integrated Rural Development in Nigeria: 1978', p. 1.

<sup>2</sup> For a framework, see Joel D. Barkan, Michael L. McNulty, and M. A. O. Ayeni, 'Hometown Voluntary Associations, Local Development, and the Emergence of Civil Society in Western Nigeria', *JMAS*, 29, 3 (1991), pp. 457-480; and contributions in Eme O. Awa (ed.), *The Transformation of Rural Society* (Jos, 1988).

<sup>3</sup> William Bascom, 'The Esusu: A Credit Institution of the Yoruba', *Journal of the Royal Anthropological Institute*, LXXXII, 1 (1952), pp. 63-69; Clifford Geertz, 'The Rotating Credit Association: A "Middle Rung" in Development', *EDCC*, X, 3 (1962), pp. 241-263.

<sup>4</sup> S. A. Nkom, 'Co-operatives and the Political Economy of Agrarian Capitalist Development in Nigeria', *NJPS*, 4, I&II (1985), pp. 105-119; Adeniyi Osuntogun, 'Co-operatives and Small Farmers in Nigeria', in S. O. Olayide, J. A. Eweka, and V. E. Bello-Osagie (eds.), *Nigerian Small Farmers* (Ibadan, 1980), pp. 133-148.

<sup>5</sup> Dickson L. Eyoh, 'Structures of Intermediation and Change in African Agriculture: A Nigerian Case Study', *ASR*, 35, 1 (1992), pp. 23-24.

groupings have enabled small, cash-poor rural producers to pool otherwise disparate resources 'to attain objectives which they could not attain if they worked separately or in mutual competition'.<sup>6</sup> Since the turn of the century, they have helped to facilitate small-farmer participation in formal-sector economic opportunities, for example by providing soft-term credit in an informal setting in which all members assume partial responsibility for control and management functions.<sup>7</sup>

What follows puts EAADP and ODSADEP's infrastructure development programmes in the context of their intermediate objectives, the wider history of infrastructure development in Ondo State, and in relation to similar projects in other parts of Nigeria. Specifically, the chapter compares EAADP and ODSADEP's infrastructure development objectives with their end results and identifies gaps between the projects' set targets and verifiable attainments during 1981-92. It also draws on the existing instrumental literature<sup>8</sup> and structural analysis<sup>9</sup> to explain the gaps.

The rest of the chapter is divided into six sections. Section two reviews the state of infrastructure in Ondo State, while a section each examines project performance on irrigation, farm service centres, and also cooperative and farmers' groups. Section six examines EAADP's road construction and maintenance programme in detail, partly because 'feeder and access roads rightly located can cause increased cultivation of

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<sup>6</sup> E. I. Price, 'Co-operation and the Co-operative Department' (Ibadan, 1952), p. 1.

<sup>7</sup> Cf. John H. Hamer, 'Preconditions and Limits in the Formation of Associations: The Self-Help and Cooperative Movement in Africa', *ASR*, 24, 1 (1981), pp. 113-132.

<sup>8</sup> See Brian D'Silva and M. Rafique Raza, 'Integrated Rural Development in Nigeria: The Funtua Project', *FP*, 5, 4 (1980), pp. 282-297; McDonald P. Benjamin, 'Nigeria - Funtua Agricultural Development Project', chp. 12 in his *Investment Projects in Agriculture* (1985), pp. 178-216; and three contributions in Uzo Igbozurike and R. Raza (eds.), *Rural Nigeria* (Ilorin, 1983) viz: A. J. Adejo, 'The Impact of Agricultural Development Projects on Quality of Life in Rural Areas', pp. 193-203; J. Ukoje and J. Baba, 'The Impact of the Ayangba Agricultural Development Project on the Quality of Rural Life', pp. 204-251; and S. Nwoko and A. Mabawonku, 'Welfare Indicators for Farmers in Lafia Agricultural Development Project Area', pp. 252-260.

<sup>9</sup> As in Akin Mabogunje, 'The Funtua Integrated Rural Development Project', in R. P. Misra (ed.), *Rural Development* (New Delhi, 1981), pp. 175-273; Eyoh, 'Structures'; Duro Oniemola, 'The World Bank and Capitalist Agricultural Development: The Ilorin Agricultural Development Project in Nigeria', (Berlin, n.d).

adjacent land by more than 100%'<sup>10</sup> and help reduce production diseconomies or the individual farmer's marginal cost of adoption;<sup>11</sup> and partly because Nigeria's ADPs have often been more successful in road construction than in the pursuit of their agricultural goals.<sup>12</sup> In each case, the pre-project situation is discussed alongside developments during the 1980s. Section seven concludes the chapter.

## 4.2 Infrastructure Supply in Rural Ondo State

That Ondo State's farmers have confronted severe infrastructure supply problems is legendary, though as I show below, official data have often suggested the contrary. Within Western Nigeria, at least, present-day Ondo State is widely believed to be relatively deprived with regard to economic opportunities outside agriculture. There are at least two ways of illustrating this position. The first is general and indirect, relying on inferences from the wider literature on urban bias. A low-level variant of this approach would be to examine patterns of government's development expenditure, say at the regional level, to ascertain how public expenditure has been allocated between urban and rural areas over the years, or determine the location of government-funded productive projects between urban and rural areas. In both respects, the available literature suggests that urban bias has been a cumulative consequence, if not the initial intent, of government development policy in Western Nigeria in the 1950s and 1960s. It has also been established that the Western Nigeria Marketing Board (WNMB) assumed fiscal powers from the 1950s onwards partly to fund the government's programme of modernisation and industrialization.<sup>13</sup>

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<sup>10</sup> Jens Christensen, *Ekiti-Akoko Agricultural Development Project Final Report* (Ikole-Ekiti, 1984), p. 88.

<sup>11</sup> For an overview, see Peter Richards, 'The Economic Context of Rural Roads', in John Howe and Peter Richards (eds.), *Rural Roads and Poverty Alleviation* (1984), pp. 1-17; cf. Francis S. Idachaba, 'Commentary on Infrastructure', in John Mellor, Christopher Delgado, and Malcolm Blackie (eds.), *Accelerating Food Production in Sub-Saharan Africa* (Baltimore, 1987), pp. 232-233.

<sup>12</sup> Juan Gaviria, Vishva Bindlish, and Uma Lele, 'The Rural Road Question and Nigeria's Agricultural Development', *MADIA Discussion Paper 10* (Washington, 1989), p. 5; p. 15; note 4, p. 24.

<sup>13</sup> For early academic support, see G. K. Helleiner, 'The Fiscal Role of Marketing Boards in Nigeria's Economic Development', *EcJ*, LXXIV, 295 (1964), pp. 582-610. For a review of the Nigeria literature, see Duru Tobi, 'The Relevance of Lipton's Urban Bias Thesis to Nigeria', *NISER Monograph Series N° 3* 1989; and W. J. Okowa, 'Urban Bias in Nigerian Development Planning', *NJESS*, 29, 1 (1987), pp. 47-59.

The regional government did attempt to increase local processing of agricultural produce and expand employment opportunities in the region. But most of the ventures were located in relatively well-serviced cities and industrial estates (e.g. Ikeja, near Lagos). While this strategy assured that industries were close to large markets and economic growth points, the cities and industrial estates were themselves islands of well-serviced publicly-funded infrastructure supply in an environment characterised by large want-get ratios and social stagnation. The programme's increasing demand on government resources also precluded infrastructure development in rural areas even though additional tax burdens were imposed on cocoa farmers.<sup>14</sup>

Apart from the general backwash effects of urban bias on rural Western Nigeria, the foregoing processes affected Ondo State in two specific ways. First, although government's tax extortions on cocoa were applied across the board, farmers in present-day Ondo State may have borne a greater share of the increasing burden than their counterparts from western Yorubaland. As indicated in chapter 2, this is because the state's cocoa output increased in absolute and relative terms in the 1950s and 1960s, about the same time as WNMB's fiscal role was intensified.

Moreover, present-day Ondo State was and remains distant physically from the Lagos-Ibadan axis, Western Nigeria's main growth centres since the 1940s. Given 'the deprivation of the rural sector relative to the urban sector in the provision of infrastructures', and the manner expenditure on maintenance and ancillary services has intensified initial locational advantages,<sup>15</sup> competing demands for available resources have set the odds against Ondo State. Moreover, the state has not benefited substantially from the indirect effects of government activism, such as employment and commercial opportunities in small businesses and in the service sector, which are often located close to the seat of government. In short, Ondo State's contribution to Western Nigeria's engine of growth has not been matched by public expenditure on productive and social infrastructure in the state.

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<sup>14</sup> Tobi, 'Lipton's Thesis', p. 25; pp. 27-28.

<sup>15</sup> Idachaba, 'Commentary', p. 238.

The second and more realistic gauge of infrastructure supply in rural Ondo State lay in the findings of specific empirical surveys of productive infrastructure and of economic opportunities in the state. Once again, the indications are that a slightly arid economic environment engendered partly by the absence of basic facilities has in turn occasioned further scarcity of economic opportunities. This view has been suggested consistently by the results of empirical surveys conducted in different parts of the state since the 1960s.

In 1968, Afolabi Ojo conducted a survey of modes of transport to and from agricultural work in Ife as well as in Idanre. A similar survey conducted by Ogundana in 1971 examined the demand for and supply of transport infrastructure among farmers in Ado Ekiti. Both surveys suggest an abject lack of motorised vehicular transport in rural Ondo State.<sup>16</sup> About half of Ogundana's respondents (n=64) depended on human portage to transport their cocoa crop from farmsteads to unsurfaced roads. The corresponding figure for non-cocoa produce was 62% (n=69). In turn, 47% of cocoa and 28% of non-cocoa produce were transported over non-surfaced roads by motor lorries. The situation was slightly better with roads with tar or laterite surfaces, where 83% of cocoa farmer-respondents and 46% of food farmer respondents were using motor vehicles. As a whole therefore, nearly one-fifth of Ado-Ekiti's cocoa farmers, and more than half of its food-crop growers were *not* employing motorised transport by 1971.<sup>17</sup>

The inference from this is clear enough: shortfalls in transport infrastructure supply have been more prevalent among food crop farmers than among cocoa farmers. Cocoa farmers have also had better access to, or higher effective demand for, more efficient transport facilities than food-crop growers. Whether this constitutes *necessary* evidence of the character of social differentiation in rural Ondo State is arguable, but it does indicate generally how official support for the export crop sub-sector could have precluded concern for the plight of food crop farmers up to the 1970s.

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<sup>16</sup> G. J. Afolabi Ojo, 'Some Observations on Journey to Agricultural Work in Yorubaland, Southwestern Nigeria', *EcG*, 46, 3 (July 1970), pp. 459-471; Babafemi Ogundana, 'The Transport Constraint on Rural Development in Nigeria', in NES, *Rural Development*, pp. 77-91.

<sup>17</sup> Ogundana, 'Transport Constraint', Table 3, p. 80; pp. 82-83.

Still, productive infrastructure has been far more scarce in what became Ondo State in 1976 than Ogundana's survey has indicated. The main reason is that Ado-Ekiti, the survey's location, has not been really representative of rural Western Nigeria. As Ogundana himself observed, more people from Western Nigeria's villages go 'to farm on foot' and depend on human labour to transport their crops than his data suggested.<sup>18</sup> Since the 1960s at least, Ado Ekiti has been an *agro town*, one of those settlements with a large population and with commercial opportunities to be considered urban by Western Nigeria's standards of the 1970s. This explains APMEPU's decision to exclude Ado along with Ikare Akoko and Oka Akoko from the survey in 1981 of Ekiti-Akoko's villages.<sup>19</sup>

A more appropriate and recent picture of rural Ondo State is furnished by the report of the agricultural survey for 1986/87.<sup>20</sup> The survey covered 4,968 households selected from 34 villages, two from each of the 17 LGAs then existing in the state, in which case ten survey villages were in the project area.<sup>21</sup> Apart from being recent, the survey's findings are interesting both in themselves and in the context of this chapter. For example, the report suggests that only five (14.7%) of the 34 villages had pipe borne water. The same proportion had electricity; three (about 9%) had health institutions; and one village had none of these facilities.<sup>22</sup> Access to motorable roads by respondents seemed better. About 62% of all villages reported all-year round motorable roads; 21% had seasonal roads, and 12% had no motorable roads at all. The remaining 2% of villages was based in riverine Ondo State, in predominantly swampy terrain.<sup>23</sup>

Despite this seemingly remarkable access to motorable roads, human portorage has been

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<sup>18</sup> *Ibid.*, p. 82.

<sup>19</sup> See APMEPU, 'Ekiti-Akoko Agricultural Development Project Report on the Village Listing Exercise' (Benin City, 1982), p. 5.

<sup>20</sup> ODS, *Report of Agricultural Crop Reporting Survey 1986/87* (Akure, n.d.).

<sup>21</sup> *Ibid.*, section I, p. 1.

<sup>22</sup> *Ibid.*, section II, p. 1.

<sup>23</sup> *Ibid.*

the most pervasive means of evacuating agricultural produce from farm to village or market place. According to the survey, head loading of farm produce was reported in 29 villages (85.3% of the total); bicycles were used in only eight villages (23.5%), while lorries were in use in 20 villages (59% of the total).<sup>24</sup> The seeming contradiction between the availability of motorable roads and widespread employment of human portage may reflect a high incidence of subsistence (or consumption) production in the sample villages. Alternatively, the proportion of output that gets to the market may be relatively low value, food crops that cannot absorb the cost of vehicular transport.<sup>25</sup> This would apply to cases where the quantity, and therefore market value, of surplus production in each case is such that transport from farm to village is undertaken with the labour of family members or with that of the farmer's associates rather than with paid labour.

Furthermore, the cost to farmers of commercial transport may have been high, either because tariffs were high on account of low demand, or because commercial operators were probably facing competition from itinerant traders who were more willing to assume responsibility for the primary costs of transport. Finally, it is possible that the motorable roads referred to in the survey are secondary roads linking villages with one another or with adjacent towns rather than those that lead to farmsteads. In any case, the survey has painted a vivid picture of the scarcity of productive infrastructure in rural Ondo State during the 1980s. For most farmers, two options are open: to deploy human labour into portage, sometime at the cost of more economic uses, or to locate farms near motorable roads, even though high demand for such land might have translated to shorter fallows and possibly lower yield potential; or lower-than-average farm-sizes.<sup>26</sup> The following conclusions from a nation-wide survey (hereafter Idachaba survey) of rural productive and social infrastructure, conducted on the eve of EAADP operations under the auspices of Nigeria's Federal Department of Agriculture, are therefore instructive:

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<sup>24</sup> *Ibid.*, section II, p. 2.

<sup>25</sup> Cf. Ogundana, 'Transport Constraint', p. 79.

<sup>26</sup> A. A. Ogunsanya, 'Rural Accessibility Problems and Human Resource Development', *JRS*, 3, 1 (1987), pp. 31-42.



The basic infrastructure of rural Ondo [State]...is poorly developed and what exists is often not maintained. Local government area roads in particular, are seasonal and some become unmotorable during the heavy rains. This situation creates many problems for the local farmer trying to evacuate produce to the market...Ondo State must look to upgrading the basic amenities to her rural population...<sup>27</sup>

Ekiti-Akoko ADP's response to the foregoing situation was an infrastructure development programme that incorporated four major components: irrigation dams, farm service/input distribution centres, co-operative societies, and rural and feeder roads.

The remaining parts of this chapter examine EAADP's performance in respect of these, though the road construction programme is emphasised over and above the other components for several reasons. First, it is a truism that the provision of good, motorable roads is a primary objective as well as a veritable tool to open up traditional agriculture to wider commercial and technological influences and break the vicious circle of poverty in rural society.<sup>28</sup> This 'rule' applies more to food crops than to export crops. Since food crops deteriorate faster, and since they attract lower value per unit weight than export crops, commercial production of food items is feasible only after prior investment in infrastructure. Yet, the leap from subsistence to commercial production is itself constrained invariably by the lack of investment in productive infrastructure. For example,

The perishability of agricultural products demands prompt evacuation if substantial loss is not to occur...But tragically, a substantial proportion of existing agricultural (especially food) production has little or no economic value because it cannot be moved to meet available demand in other areas...Measures to increase output per man and per unit in rural areas must be accompanied by substantial improvement in the modes of transport in the rural area, because what is gained by the application of fertilizers or by eliminating pests may be lost if there are no physical facilities for movement and distribution.<sup>29</sup>

Indeed, the point made by the Gaviria, Bindlish, and Lele study is that road construction

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<sup>27</sup> Francis S. Idachaba, *Rural Infrastructures in Nigeria* (Ibadan, 1985), p. 662.

<sup>28</sup> Richards, 'Rural Roads'. For Nigeria-wide reviews, see C. O. Ikporukpo, 'The Management of the Rural Transportation Problem in Nigeria', *QJA*, XXI, 1/2 (1986/87), pp. 57-71; and Gaviria, Bindlish, and Lele, 'Road Question'. Case studies in present-day Ondo State include Ojo, 'Observations'; and Ogundana, 'Transport Constraint'.

<sup>29</sup> Ogundana, 'Transport Constraint', p. 79; p. 87.

has been a *prior* objective as far as Nigeria's enclave ADPs are concerned. In this sense, EAADP's road construction programme facilitates close comparison with its contemporaries. It also provides a more productive gauge of project contributions to the Ekiti-Akoko region than does performance in the supply of irrigation dams, farm service/input distribution centres, or the establishment of co-operative societies.

### 4.3 Irrigation Dams

Ekiti-Akoko ADP was expected to 'build 35 earthen dams, each of 35,000 cubic metre storage capacity for water supply to permanent farm settlements'.<sup>30</sup> Although the SAR did not so state, the adjective 'permanent' in the above statement most probably referred to residence, in which case settlers were expected to practice crop rotation rather than the more popular shifting cultivation. The immediate point of interest, however, is that the inclusion of thirty-five dams in EAADP's infrastructure programme is extremely difficult to justify - except perhaps as an example of how the World Bank and international agribusiness have sought to transplant 'turn-key' projects in third world countries with little regard to local resource circumstances.<sup>31</sup> This section discusses EAADP's irrigation objectives and argues that irrigation dams constitute a technological overkill in the project area.

Rain-fed agriculture has been predominant and mechanised irrigation virtually unknown in the Ekiti-Akoko area and elsewhere in Ondo State. Traditions of community control over arable land have also meant that most cultivators have only usufruct rights rather than freehold control over farmland. As noted in chapter 2, farm holdings are small, fragmented lots estimated at about 0.53 hectares per cultivator in 1976.<sup>32</sup> Estimated landholding per farmer may have risen as a result of the 1991 headcount, under which the state's estimated population was reduced by about 1.0%. But the most sanguine estimate would hardly exceed 0.75 ha. per farmer. At a deeper level, the identities of

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<sup>30</sup> APMEPU, *Ekiti-Akoko Agricultural Project Completion Report, Main Report Vol. I*, p. 72.

<sup>31</sup> See Susan George, 'Caveat Emptor: The Transfer of Technology' in her *Ill Fares the Land* (Washington, 1984), p. 76; p. 78.

<sup>32</sup> ODS, *Rural Economic Survey 1976* (Akure, n.d.), various tables.

entire communities are tied closely to the land, in some cases without properly demarcated or mutually acceptable boundaries. Such boundaries are likely to be blurred through land consolidation induced by mechanisation, but consolidation could also trigger inter-communal unrest or highlight deeper, overlapping economic interests - depending on specific factors like the man-land ratio and urban-related demand for land in each case.<sup>33</sup>

Neither mechanisation nor irrigation is necessarily incompatible with small plots or communal land tenure. In theory, small plots could be 'pooled' as in Western Nigeria's 'grouped' farms of the 1950s, or small farmers encouraged to cultivate contiguous plots to reduce tractor movement between farms. This however depends on existence of prior demand for mechanised services, on farmers having been convinced that mechanisation offers substantial economic pay-offs, and above all, on the opportunity costs of mechanisation. With regard to the latter, Ondo State's ecological attributes make irrigation relatively expensive and unattractive. In a lecture delivered in 1984, S. A. Olusuyi, a senior agricultural official, had argued that Ondo State would not require large dams like those associated with ADPs in northern Nigeria. According to Olusuyi, 'supplementary irrigation' might suffice to promote intensive and more efficient, all-year-round farming in the state.<sup>34</sup> Given rainfall distribution in Nigeria's forest zone, and that it is impossible to have 50 ha. of arable land that is not traversed by a river, even these smaller, less capital-intensive, and perhaps more socially responsive dams would be *needed* in Ondo State in only two months of a normal agricultural year.<sup>35</sup>

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<sup>33</sup> In Iju, near Akure, these factors (among others) have resulted in the failure of government schemes because of Iju's fear of being swallowed up by Akure [Interviews]. In turn, Ayede was founded in the mid-nineteenth century on Itaji's land - with permission according to intelligence reports, and without permission according to oral tradition and other primary sources [A. C. C. Swayne, 'Intelligence Report on the Ayede District, Ekiti Division, Ondo Province', CSO 26/31014, NAI]. In any case, Ayede's farmers have obtained farmland from Itaji, Ishan, and Orin, among other villages, with minimum effort and without boundary disputes [Personal knowledge].

<sup>34</sup> S. A. Olusuyi, 'Some Farmers' Problems that must be attended to before farmers can play their rightful role in Economic Viability of Ondo State', in G. T. Fatunla (ed.), *Economic Viability of Ondo State* (Akure, 1984), p. 42.

<sup>35</sup> *Ibid.*

Olusuyi's overall position differs slightly from that of Nigeria's 'large dam lobby' but has deeper structural significance. For one, irrigation schemes require large injections of foreign exchange and local currency as well as foreign technical expertise.<sup>36</sup> Given Nigeria's foreign exchange circumstances in the 1980s, and the alternative uses to which available receipts could be put, a generalised commitment to mechanisation could have replaced relatively cheap labour with expensive machines (see chapter 8). For another, northern Nigeria's irrigation schemes have been associated with the emergence of more centralised control and management of land as well as water resources, attributes which erode small farmers' autonomy.<sup>37</sup> These points raise questions about the social relevance and economic value of dams, supplementary or otherwise, in Ondo State's resource circumstances. In any case, EAADP's unrelenting financial difficulties made irrigation an unaffordable luxury: not one of the projected 35 earthen dams had been built by 1992.

#### 4.4 Farm Service Centres

Farm service centres are the individual ADP's field outposts; hence they are critical to the administration of agricultural extension programmes. For one, FSCs are located closer to the ordinary farmer than, say, the normal Ministry of Agriculture or extra-ministerial office, thereby providing the farmer a focal contact point with fellow farmers and with extension staff, a mental image of the values espoused by ADPs, and necessary evidence that those values or aspirations are realisable. As distribution outlets for improved seeds, fertilizer, chemicals, and equipment, FSCs bring ADPs' agricultural goals even closer to the point of demand. Ideally, FSCs should also serve as bridgeheads for collating farmers' views on project performance and for linking research and training with farm experience. This section discusses project performance in respect of FSCs and alternative criteria for the location of FSCs and comment on the efficiency of their distribution in the Ekiti-Akoko area.

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<sup>36</sup> F. S. Idachaba, 'Sustainability Issues in Agricultural Development', in Ted J. Davis and Isabelle A. Schirmer, eds., *Sustainability Issues in Agricultural Development* (Washington, 1987), p. 32.

<sup>37</sup> For example by A. C. Bird, 'The Land Issue in Large Scale Irrigation Projects: Some Problems from Northern Nigeria', in W. M. Adams and A. T. Grove (eds.), *Irrigation in Tropical Africa* (Cambridge, 1993), pp. 75-85. Cf. Tina Wallace, 'Agricultural Projects and Land in Northern Nigeria', *ROAPE*, 17 (1980); and W. M. Adams, 'Development's Deaf Ear: Downstream Users and Water Releases from the Bakolori Dam, Nigeria', *WD*, 21, 9 (1993), pp. 1405-1416.

Mabogunje has associated Nigeria's ADPs with the spatial approach to the distribution of farm inputs and extension services.<sup>38</sup> Under this scheme, farmers are organised in clusters of groups and/or villages for regular and frequent contact with extension officers. For purposes of input distribution, central locations are selected from a core of farming villages, administrative centres, or market places and then developed as distributive outlets or contact points for farmers located over a presumably suitable distance from that centre. The objective is usually to reduce the physical distance between the demand and supply of extension services; ensure a more efficient delivery of improved seeds, fertilizer, insecticide, sprayers, and technical advice to end-users; cut the cost to the progressive farmer of adopting new techniques; and above all make adoption attractive to all and sundry.

On the eve of project implementation in 1981, according to the Idachaba report, Ondo State had seven fertilizer stores and 20 crop storage facilities (i.e. grain silos, maize cribs, stores, and warehouses) within its boundaries.<sup>39</sup> Seven of these were built between 1960 and 1966; sixteen were constructed after 1976, when Ondo Province gained full state status; no information was provided on construction date for the remaining four. Eleven (i.e. eight silos, stores and cribs for grains and three fertilizer stores) were located in the project area, three of them were constructed in the 1960s, seven after 1976, and there was no information on the remaining one.<sup>40</sup>

By 1980, the Federal Department of Agriculture had only 'allocated' five agro-service centres to Ondo State while the state government in turn 'planned' 17, that is one to each local government council (LGC) then existing. According to this calculation, one agro-service centre was to serve about 932 sq. km. and have a walking radius of 17.2 km.<sup>41</sup> In fact, only five agro-service centres existed in the state by 1981; two of these were in the project area, in Ikare (Akoko North) and Iyin (Ekiti Central), serving a land area of

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<sup>38</sup> Mabogunje, 'Funtua', p. 196.

<sup>39</sup> Idachaba, *Rural Infrastructures*, Table 468, pp. 668-669.

<sup>40</sup> Extracted from *ibid.*, Table 446, p. 666.

<sup>41</sup> *Ibid.*, Table 7, p. 19.

874 sq. km. and 745 sq. km. and having a walking radius of 17 km. and 15 km. respectively.<sup>42</sup> It is not clear how many of these five were operational, or how well they performed. However, five others were proposed for construction; one of these was to serve a land area of 597 sq. km. and have a walking radius of 14 km. in and around Aisegba (Ekiti East), within the project area.<sup>43</sup>

Ekiti-Akoko ADP's goals on input distribution and extension administration were clearly ambitious. Among other objectives, the project sought to cut the average physical distance between a farm service centre and the farmer to about ten kilometres. To this end, 30 FSCs were to be built in two categories. The first, comprising 25 smaller FSCs were to be distributed evenly to ensure that project services could reach all corners of the Ekiti-Akoko area and developed as clusters around five larger FSCs. In addition, five pre-delivery centres (PDCs) were planned, one at the headquarters of each of the five local government areas in the project area.

Only 27 FSCs were established successfully in the project area in 1982-86. Each council headquarters had at least one FSC, with one additional PDC established in Ikole (Ekiti North), Omuo (Ekiti East) and Ikare (Akoko North).<sup>44</sup> Fourteen FSCs, or one-third of the total number, were constructed in 1983-85 but did not open for business until 1987, while at least eight (or 30%) were either inherited or remodelled. Among newly constructed FSCs were those at Irun and Ikaram (Akoko North); Ifira and Oba (Akoko South); Ode and Aisegba (Ekiti East), as well as those at Ayede, Ilupeju, and Oke-Ako (Ekiti North). The FSC at Oka (Akoko South) was remodelled while another at Isua, also in Akoko South, was inherited. Other inherited FSCs were at Oke-Agbe (Akoko North), Iluomoba (Ekiti East), and Ado, Are-Afao, Igede, and Igbemo, all in Ekiti Central LGA. As a whole, EAADP achieved a remarkable 90% completion rate for FSCs.

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<sup>42</sup> *Ibid.*, Table 467, p. 667.

<sup>43</sup> *Ibid.*, p. 667.

<sup>44</sup> This paragraph is based on V. A. P. Naik, 'Commercial Services Division', in APMEPU, *EAADP Completion Report, Vol. II*, pp. 45-46.

Table 4.1 presents information on the precise location and distribution of 27 FSCs by local government. At face value, the table suggests that FSCs were evenly distributed between the five LGCs in the project area. With the two agriculturally most populous LGAs in the project area, Akoko North and Ekiti North, each having 22.2% of the total, and the three others sharing about 56% of the total between them, the range of actual distribution of established FSCs from the 20% arithmetic mean stood at between -1.5% and 2.2%. The narrowness of this range suggests that LGAs were the unit of distribution.

**Table 4.1**  
**Location and Distribution of Farm Service Centres (FSCs, by local government area)**

Akoko North		Akoko South		Ekiti Central		Ekiti East		Ekiti North		Total
Location	N <sup>o</sup>	Location	N <sup>o</sup>	Location	N <sup>o</sup>	Location	N <sup>o</sup>	Location	N <sup>o</sup>	
Ikare	1	Ifira	2	Ado	2	Aisegba	2	Ayede	2	9
Ikaram	2	Isua	1	Are-Afao	1	Iluomoba	1	Ikole	1	6
Oke-Agbe	1	Oba	1	Igede	1	Ode	1	Ilupeju	2	6
Irun	2	Oka	1	Igbemo	1	Omuo	1	Oke-Ako	1	6
	6		5		5		5		6	27

Source: O. Famoriyo, 'Organisation and Management', in APMEPU, *EAADP Completion Report, Vol. II*, p. 7.

It is also likely that LGAs were conceived as equal socio-political entities rather than as aggregate territorial representations of unequally endowed economic units or farming families. There is much to be said for the socially conscientious approach that most certainly lay beneath the siting of the project's FSCs. But a principled insistence on equal access to productive resources is not necessarily compatible with efficient resource use in the long term. As post-colonial Africa's economic development record has shown so clearly, measures designed to assure equal access to unequally distributed resources could not by themselves effect changes in the structures of economic behaviour; hence, they have stifled initiative, and channelled direct and indirect subsidies to inefficient or non-optimal production.<sup>45</sup>

<sup>45</sup> See, e.g., Douglas Rimmer, 'Development in Nigeria: An Overview', in Henry Bienen and V. P. Diejomaoh (eds.), *The Political Economy of Income Distribution in Nigeria* (New York, 1981), pp. 29-87; and *Staying Poor: Ghana's Political Economy 1952-1990* (Oxford, 1992). For a wider review, see Richard C. Cook, 'Farmers and the State', in Rimmer (ed.), *Rural Transformation in Tropical Africa* (1988), pp. 116-139.

The above commentary could apply to the distribution of the project's service centres. If alternative or proxy measures were employed to determine the share of each LGA from the available 27 FSCs, the seemingly equal distribution portrayed by Table 4.1 can even be shown to be less than optimal. For example, Akoko North and Ekiti North LGAs, which between them accounted for 58% of estimated farming families in the project area now had about 45% of FSCs within their borders. This is itself skewed in favour of Ekiti North LGA and against Akoko North LGA, given that the former provided 20.3% of total estimated farming population in the project area while the latter's share amounted to 38%. In contrast, each of the remaining three LGAs with an average 14% of estimated farming families now had 18.5% of FSCs each.

Two points are thus suggested by the foregoing. The first is that some farmers in the two more agriculturally populous LGAs may have been deprived of the potential benefits, including the demonstration effects, of the close presence of FSCs. Secondly, although the parity between Akoko North and Ekiti North seems to be part of an unwritten formula for maintaining 'balance' between the Ekiti and Akoko sub-ethnic groups in the project area, it implies further deprivation for farmers in Akoko North LGA. In any case, Table 4.2 shows that one FSC was serving about 4,800 farming families in Akoko North and

**Table 4.2**  
**Number of Families Served by FSCs (by LGA)**

(1) Local government	(2) Estimated number of farming families	(3) N <sup>o</sup> of farming families per FSC	(4) Service factor per FSC <sup>a</sup>
Akoko North	28,650	4,775	170.6
Akoko South	11,857	2,372	84.8
Ekiti Central	9,730	1,946	69.5
Ekiti East	9,968	1,994	71.3
Ekiti North	15,343	2,557	91.4
All Project	75,548	2,798	100.0

Notes: <sup>a</sup> Individual LGA entries in col. 3 expressed as percent of all-project mean.  
Computed from APMEPU, 'Village Listing'.

just about 2,600 farming families in Ekiti North LGA. The number of farming families served by FSCs in the other three LGAs ranged from 1,946 to 2,372. At an average of 2,104 farming families each, the clientele of FSCs in the latter LGAs amounted to only



44% of their counterparts' immediate publics in Akoko North LGA. Expressed as a service factor or as an index of the mean clientele for the entire project, all FSCs except those in Akoko North LGA were operating below the project's 'arithmetical' threshold.

Disparities in the actual distribution of FSCs could be shown more clearly with the use of proxies. To do this, it has to be assumed that the number of farming families in each LGA could indicate effective or potential demand for project services, that the number of villages in each LGA could substitute for a measure of dispersion of FSCs, and that the number of wards could indicate the potential intensity or density of demand on FSCs in each LGA. If these assumptions are acceptable, three proxy measures could be used to construct alternative modes of distributing FSCs in the project area. Such largely hypothetical calculation could highlight the weaknesses of criteria employed by EAADP to site its FSCs, thus making possible a closer assessment of data in Table 4.1.

I have attempted one such exercise, using as weights APMEPU's data on the distribution by LGAs of the total estimated number of villages, inside and outside wards, as well as farming families in the Ekiti-Akoko area. The results are presented in Table 4.3 and suggest more or less remarkably different outcomes, for example between actual and weighted distribution of FSCs on the one hand, and the three elements of weighted distribution of FSCs on the other.

**Table 4.3**  
**Actual and Weighted Distribution of FSCs in Ekiti-Akoko ADP**

(1) Local Government	(2) Distribution of FSCs				(3) Difference between actual and weighted
	Actual <sup>a</sup>	Weighted <sup>b</sup>			
		% of villages	% of wards	% of farming families	
Akoko North	6	7	7	10	6
Akoko South	5	4	5	4	-2
Ekiti Central	5	4	3	3	-5
Ekiti East	5	4	7	4	0
Ekiti North	6	8	5	6	1
Total	27	27	27	27	0

Sources: <sup>a</sup> Same as Table 4.1. <sup>b</sup> Computed from APMEPU, 'Village Listing', pp. 11-13.

The weighted distribution of FSCs in respect of the number of farming families differs most, both in relation to other elements in the weighted distribution sub-category and, arguably, in relation to the actual distribution of FSCs. While the other LGAs move back and forth in relation to the actual distribution of FSCs, Akoko North's hypothetical share of FSCs increased sharply, from five actual FSCs through seven FSCs in respect of the LGA's share of villages and wards to ten FSCs on account of its relative share of farming families in the project area. Finally, if these differences are balanced out, as in column 3 of Table 4.3, Akoko North becomes the most deprived of the five LGAs, with six units of what may be referred to, albeit arbitrarily, as cumulative deprivation in the distribution of FSCs. Ekiti North LGA, the second most populous in the context of APMEPU's data, has been deprived by only one unit, while Ekiti East is in equilibrium. In contrast, Ekiti Central and Akoko South were the 'favoured' LGAs; the former obtained five extra units while the latter got two units more than it seems to have deserved.

The foregoing inferences point up aspects of the history of government presence in the project area as a whole, and the differential intensity of that presence between the LGAs. In its report on the village listing exercise in the project area, APMEPU had remarked that Akoko North LGA's farming population may have been underestimated by 13%.<sup>46</sup> This 'unusual' claim may or may not be valid, especially since it was explained away by reference to enumerators' familiarity with their survey area. The point of interest, though, is that this ties in with Akoko North LGA's status in the alternative allocation of FSCs, for Table 4.3 suggests that it was worse off by one unit each in the weighted distribution of FSCs by number of villages and by number of wards. Since both criteria (i.e. number of villages and number of wards) are more determinate than the size of farming population, it is reasonable to surmise that the alternative scenario in Table 4.3 is closer to reality than it seems, and that Akoko North LGA has been deprived in fact.

Ekiti Central LGA's status as the most favoured LGA in the actual distribution of FSCs is perhaps best explained by wider political-economic factors; its status may also help in isolating additional considerations in the location of the project's FSCs. Of all LGAs in

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<sup>46</sup> APMEPU, 'Village Listing', pp. 4-5.

the project area, Ekiti Central has the longest tradition of government's physical presence that dates back to 1914, when Ondo Province was constituted with Ado-Ekiti as headquarters.<sup>47</sup> Unlike many Akoko and northern Ekiti communities which moved back and forth between the old Kabba/Lokoja Division and Ilorin Division respectively, Ekiti Central has also had a tradition of administrative stability woven around Ado. This has in turn translated to relative advantage with the location of administrative infrastructures, including office blocks, an agricultural station (comprising an experimental farm, warehouses, stores, and a mechanical workshop) and related facilities. In the wake of EAADP's financial debacle, ODSG decided to hand over existing facilities to the project to relieve pressure on its cash. Since much of the infrastructure owned previously by the state's Ministry of Agriculture in the project area was handed over to EAADP under this arrangement, those areas with existing facilities became favourite locations for project structures. All five FSCs in Ekiti Central LGA were thus inherited by the project, while the other LGAs had between three and five newly constructed FSCs.

Finally, at an average clientele of 2,800 farming families, many of EAADP's twenty seven FSCs were located outside EAADP's ten-kilometre physical distance limit. Many FSCs were also located away from market centres and other central locations in the various LGAs.<sup>48</sup> It is also likely that EAADP's investment on FSCs are justifiable more by their demonstration effect than by business volume or their marginal contribution to efficient service delivery. According to Naik, 15 FSCs recorded an annual turnover of less than 100 tonnes of fertilizer or N100,000 in annual sales. While staff offices were well-furnished, 'exhibits of sample poultry feeds and seeds were not available in most stores. Agro-chemicals and sprayers were available only in the five main PDCs, whereas the smaller stores had only fertilizer in stock.'<sup>49</sup> Naik's view, therefore, was that EAADP's FSC programme was largely wasteful, that private agencies and co-operative societies could have been more economical for EAADP, and that one PDC or FSC per LGA should sufficiently meet the project's distribution objectives. Other structures, Naik

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<sup>47</sup> *Annual Report on the Southern Provinces of Nigeria for the Year 1927* (Lagos, 1928), pp. 48-49.

<sup>48</sup> Naik, 'Commercial Services', p. 46.

<sup>49</sup> *Ibid.*

concludes, should be turned over to the private or quasi-private sector (e.g. co-operatives).<sup>50</sup>

Naik's views are valid but too economic to appreciate the deeper roots of the waste that he has criticised. It is true that generalised attitudes to public property in Nigeria have been lax, and that public officers have tended to show greater concern for their personal comfort than they have for duty. It is probable, however, that FSCs' low business turnover had less to do with public sector control than with the lack of local demand for their merchandise. Unless it could be proved that FSCs' low turnover resulted mainly from problems with input supply and service delivery, private sector control of FSCs would have made little difference to their business fortunes. The question of low demand for project services by local farmers is addressed in subsequent chapters.

#### **4.5 Co-operatives and Farmers' Groups**

This section examines EAADP's contributions to the growth of farmers' groups in the context of the remarkable history of cooperative development in Ondo State. It is argued that EAADP could not have altered the commercial orientation of existing societies or championed the cause of production societies in five short years. The main reason was intra-project division over what constituted a cooperative society, but this itself reflected historical facts in the growth of cooperatives in Nigeria.

Ondo State has been home to co-operative societies, especially cocoa marketing but also thrift and credit societies, long before the advent of EAADP. In 1950/51 for example, about 22% of Western Region's co-operative societies were based in Ondo Province, as were over 5,600 or 31.2% of total active members; marketing societies in the province also accounted for about 34% of cocoa purchased in the region, for 33.4% of turnover and 43% of net deposits.<sup>51</sup> By March 1970, the number of marketing societies in the province had increased by 345% to 267 or nearly one-third of the regional total. The province also accounted for two of three government-owned plantations, two-fifths of

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<sup>50</sup> *Ibid.*, pp. 47-48.

<sup>51</sup> R. Galletti, K. D. S. Baldwin and I. O. Dina, *Nigerian Cocoa Farmers* (1956), p. 628.

produce marketing unions, 47% of thrift and credit societies, and 54% of thrift and credit unions.<sup>52</sup> As Table 4.4 shows, cooperative activity has expanded substantially in Ondo State since the 1970s, possibly because Ondo's elevation to full state status in 1976 has facilitated more intensive extension and propaganda by the co-operatives and agriculture departments.

**Table 4.4**  
**Co-operative Societies in Ondo State (select years)**

Type of society	1970	1976/77	1979/80	1984/85	1989/90
<i>Agricultural</i>					
CPMS	267	367	375	418	360
CPMU/CMU	9	14	16	16	17
CTCS	653	1,100	1,140	3,202	2,804
CTCU/CMU	20	12	13	15	18
Co-Fishing	2	5	75	91	70
Co-Fishing Unions	-	-	-	-	4
Livestock	-	-	-	-	1
Group Farming	-	-	-	70	25
<i>Non-agricultural/mixed</i>					
Co-Consumer	5	21	51	35	40
Others <sup>1</sup>	20	7	30	96	1,066
<b>Total</b>	<b>978</b>	<b>1,526</b>	<b>1,700</b>	<b>3,944</b>	<b>4,445</b>

Notes: <sup>1</sup>Includes weaving, thrift and loan societies, thrift and savings societies (1970 only); artisanal societies, better life societies, industrial society (1989/90 only); transport society and multi-purpose societies (all years). Sources: 1970 figures are computed from Beer, *The Politics of Peasant Groups in Western Nigeria* (Ibadan, 1976), p. 122; other years Ondo State Co-operative Federation, April 1992.

Yet, rural development in present-day Ondo State has been mired in a deep, unending controversy about conceptions of farmers' groups, and about the respective roles of the Agriculture and Cooperative Departments in providing nurture and advice to such groups.<sup>53</sup> Historically, farmers' cooperatives started as independent, self-help associations, established to enable members exploit new opportunities in commodity production. The earliest example, the Agege Planters Union, was promoting agricultural improvement and cocoa fermenting by the turn of the twentieth century, while others soon combined agricultural extension with the provision of credit to their members. By

<sup>52</sup> C. E. F. Beer, *The Politics of Peasant Groups in Western Nigeria* (Ibadan, 1976), p. 122.

<sup>53</sup> See, e.g., Nigeria, *Report of a Committee Appointed in Nigeria to Examine the Recommendations made by the Commission on the Marketing of West African Cocoa* (Lagos, 1939).

1919, R. E. Dennett, a forestry specialist in Nigeria's Department of Agriculture, had commented generously on the rapid growth in the number of voluntary farmers' associations in southern Nigeria.<sup>54</sup>

In 1931, however, the control of co-operative marketing societies changed from the Department of Agriculture to a 'specialized branch of the Secretariat knowledgeable on co-operative matters'.<sup>55</sup> This move was designed ostensibly to delineate departmental responsibilities and avert a clash of interests between small-scale farmers and wealthier traders who co-existed in the marketing societies supervised by the Agricultural Department.<sup>56</sup> In fact, government action amounted to a structural overkill. As Carlson argued, co-operative societies

lulled the farmer into thinking that someone was taking good care of his interests until it was too late for him to act. [Co-operative] extension's major achievement was preventing extensive reactionary political and mob action by farmers willing to preserve the status quo. Instead of maintaining the rural way of life to which it was dedicated, extension actually assisted in its liquidation.<sup>57</sup>

In 1936, government assumed control over cooperative marketing societies, immediately reducing them to mere agencies of commercial interests in the cocoa trade.<sup>58</sup> The take-over also destroyed the societies' status as autonomous farmers' groups, severed them from their production development functions, and imposed a narrower conception of co-operatives on the farming public.<sup>59</sup> Above all, the new functional arrangement marked

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<sup>54</sup> R. E. Dennett, 'Agricultural Progress in Nigeria', *JAS*, XVIII, LXXII (1919), pp. 268-269.

<sup>55</sup> Beer, *Politics*, p. 24; Tom Forrest, 'Agricultural Policies in Nigeria, 1900-78', in Judith Heyer, Pepe Roberts and Gavin Williams (eds.), *Rural Development in Tropical Africa*, (1981), p. 227.

<sup>56</sup> Price, 'Co-operation', pp. 1-2. Hence the wide regulatory and supervisory powers granted the Registrar of Co-operative Societies by the Co-operative Societies Ordinance of 1935, on which see Nigeria, 'Co-operative Societies Ordinance No. 39 of 1935' (Lagos, 1935).

<sup>57</sup> Robert Carlson, 'Co-operative Extension: A Historical Assessment', *Journal of Extension*, VII, 3 (1970), pp. 10-11.

<sup>58</sup> Michael Koll, 'The Western Nigerian Cooperative Administration: An Obstacle to Development', in Ukandi Damachi and Hans Dieter Seibel (eds.), *Social Change and Economic Development in Nigeria* (New York, 1973), p. 42; A. Olorunfemi, 'Background to the Establishment of the Nigerian Cocoa Marketing Board 1947-48', *Odu*, 19 (1979), p. 63.

<sup>59</sup> Beer, *Politics*, p. 24; cf. E. J. Nwosu, 'The Role of Government in the Development of the Co-

the advent of parallel farmer organisations in Western Nigeria, with agricultural farmers' unions and other production-oriented associations under the auspices of the Agriculture Department and more formal, commercially-oriented co-operative societies supervised by the Co-operative Department. As Table 4.4 show clearly, commercially-oriented societies have expanded much more rapidly - both in absolute and relative terms, than production societies since the 1970s.

Ekiti-Akoko ADP's cooperative policy was clear enough. In the short term, all farmers' credit was to be routed through cooperative societies, both to reduce the costs to the project of credit administration and afford the affected farmers some participation in the project process as well as self-development. Its long-term strategic objective lay in reorienting existing societies away from their commercial inclination towards production. A cooperative and credit specialist was to be employed to oversee project efforts on both counts. However, no appointment was ever made to the post. Moreover, staff secondments to the project from Ondo State's co-operatives department took place only in 1983.<sup>60</sup> Up to this time, the project's commercial division was run by extension officers from the ministry of agriculture. As shown above, however, the latter were slightly opposed to the formal co-operative approach to farmer organisation, preferring what Eyoh has called a 'temporary banding together of farmers for the expediency of securing credit packages'.<sup>61</sup> Not surprisingly, they dealt with farmers as individuals for purposes of credit administration in clear contravention of project policy to employ registered cooperative societies.<sup>62</sup> That situation prevailed until 1986, when the emphasis on cooperatives was restored.<sup>63</sup>

As a result, EAADP's contributions to co-operative growth in the Ekiti-Akoko area are likely to have been peripheral. This inference is supported by data on the numerical

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operative Movement', *Vierteljahresberichte*, 64 (1976), pp. 143-158.

<sup>60</sup> Interview with ex-Commercial Manager, 30/3/92.

<sup>61</sup> Eyoh, 'Structures', pp. 23-24.

<sup>62</sup> EAADP, *Internal Completion Report*, p. 140.

<sup>63</sup> EAADP, 'Brief on EAADP'.

growth of co-operative societies in the Ekiti-Akoko area between 1981 and 1986. As Table 4.5 and Table 4.5a show respectively, the number of primary societies in the project area increased by 78% while secondary organisations grew by 70%. Absolute increases of 524% and 1200% were recorded for multi-purpose societies and co-operative farmers' societies respectively, but the major shift seemed to have been between thrift and credit societies on the one hand and multi-purpose societies on the other. This involved an increase in the relative share of multipurpose societies, from 11.6% of the total number of societies in 1981 to about 41% of the total number of societies in 1986. In contrast, the share of thrift and credit societies declined from a high 82% of the 1981 total to 53%.

**Table 4.5**  
Co-operative Societies in Ekiti-Akoko Area, 1981 and 1986

Type of society	1981		1986		% change <sup>a</sup>
	No.	% of total	No.	% of total	
Multi-purpose	88	12.0	549	41.9	524.0
Thrift and Credit	620	84.5	720	54.9	16.1
Co-Consumers	25	3.4	29	2.2	16.0
Coop Farmers	1	0.1	13	1.0	1200.0
Total	734	100.0	1,311	100.0	-

Notes: <sup>a</sup> Difference between 1986 and 1981 figures expressed as percent of 1981 figures.

Source: EAADP, *Internal Completion Report*, Table 4.15, p. 144.

**Table 4.5a**  
Co-operative Unions in Ekiti-Akoko Area, 1981 and 1986

Type of society	1981		1986		% change
	No.	% of total	No.	% of total	
Multipurpose Unions	2	8.7	15	38.5	650.0
Produce Marketing Unions	5	21.7	5	12.8	0.0
Thrift and Credit Unions	16	69.6	19	48.7	18.8
Total	23	100.0	39	100.0	-

Source: Same as Table 4.5.

The relative change in each component is very close, but the shift to multi-purpose societies does not suggest a shift from the commercial orientation in pre-project times to more production-related organisational forms. On the contrary, multi-purpose societies



exemplify movement away from primary to fluid but often confusing combinations of secondary and tertiary economic functions. In Ayede, for example, the CT&CU became a multi-purpose union to accommodate new production societies formed in the wake of the Green Revolution programme in the 1980s. Most of such societies were little more than transient responses to equally transient emphases in Nigeria's food production campaigns. Clearly, the changes could be interpreted as necessary evidence of increasing rural-urban linkages and of mobility in rural society, but this does not really strengthen EAADP's primary concern for agricultural production. The number of cooperative societies had also started to increase before the project started, in which case the functional redefinition could have resulted from the co-operative movement's efforts at re-equipping itself to operate in produce and credit markets. In this sense, EAADP's institutional objectives may have resulted from rural institutional adaptation to commercial opportunities and therefore achieved independently of project efforts to build or reinforce social infrastructure.

In short, EAADP was not able to achieve a significant shift in pre-existing patterns, for example by encouraging explicitly production-oriented co-operatives, or by eroding the commercial orientation of co-operatives in the project area. If this is the case, as the data suggest, it follows that EAADP made little or no impact on co-operative development, or on social infrastructure development generally. The remainder of the chapter examines the project's record on physical infrastructure.

#### **4.6 Rural and Feeder Roads, 1983-86**

Like its counterparts in other parts of Nigeria, Ekiti-Akoko ADP was engaged in the construction and maintenance of rural roads 'to permit the efficient evacuation of farm produce, the timely supply of inputs, the effective movement of project service staff and much improved access to farms and hamlets.'<sup>64</sup> Specifically, EAADP was expected to 'provide 125 km. of gravel surfaced feeder road and 375 km. of farm road, one half of which was to be newly constructed.'<sup>65</sup> The project was also to assume responsibility for

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<sup>64</sup> Mabogunje, 'Funtua', p. 197.

<sup>65</sup> APMEPU, *Project Completion Report*, Vol. I Main Report, p. 72.

routine and periodic maintenance of some 2,000 km. of rural roads within the project area. This section examines EAADP's road programme in 1983-86 in some detail, arguing that the project failed to improve rural producers' access to roads partly because of the sheer magnitude of the supply gap and partly because of EAADP's institutional failures.

#### 4.6.1 Types of Roads

A gravel surfaced road differs from a farm road on at least two grounds. The first ground relates to their respective weight-bearing capabilities between climatic seasons while the second is the type and magnitude of maintenance required to make them motorable all year round, especially during the wet season. Normally, a gravel surfaced road can take relatively heavy traffic in the wet season and may or may not be motorable throughout the year. In contrast, farm roads comprise a variety of more or less permanent connections between town (or village) and farm, farm and market centre, or village and market centre. Three forms of farm roads may be identified in the present context.<sup>66</sup> The first comprises 'emergency' roads cut through thick bush to facilitate the evacuation of timber to sawmills for further processing. As Afolabi Ojo has noted, however, 'these [emergency roads] are almost always useable by vehicles only during the dry season'; they also usually terminate at the required or designated collection point, 'thus leaving some distance to farm sites to be traversed on foot.'<sup>67</sup> Some 'emergency roads' have nevertheless encouraged the development of more permanent connections between farm and village in various parts of Yorubaland, for example through use and wont.

A second form of farm roads comprises what Ekundare calls 'footpaths or bush tracks',<sup>68</sup> used traditionally by pedestrians and more recently by cyclists and motorcyclists. Footpaths are often narrow and winding openings through more or less thick bush with considerable socio-economic significance. Historically, footpaths are the exclusive preserve of trade caravans, defined by Falola as 'a company...of regular traders

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<sup>66</sup> Cf. Gaviria, Bindlish and Lele, 'Road Question', note 5, p. 24.

<sup>67</sup> Ojo, 'Observations', p. 459.

<sup>68</sup> R. Ekundare, *An Economic History of Nigeria 1860-1960* (1973), p. 71; Ogunsanya, 'Rural', p. 33.

(usually women) who covered long and short distances' by foot to buy and sell foodstuffs and other articles of trade in major markets in nineteenth century Yoruba society.<sup>69</sup> Owing to inclement weather and pervasive insect-borne diseases in Nigeria's forest zone, there has been little, if any, use of animal transport in southwestern Nigeria. Hence, while camels and donkeys have been employed widely for transport in the semi-desert and desert areas of northern Nigeria, crop evacuation from southwestern Nigeria's farmsteads, and the conveying between periodic markets of an even wider variety of articles of trade, has been predominantly by human carriers.<sup>70</sup> As with most other farm chores, labour for crop evacuation has been usually, but not exclusively, recruited from among family members or from among people in the same locality; since the formal end of domestic slavery in the late nineteenth century, human carriers have been predominantly female rather than male.<sup>71</sup>

More recently, footpaths have been used by cyclists and motorcyclists; hence they are still pivotal elements of the network of roads by which crops are evacuated from farm to village market or from either (or both) to other marketing points. Since the 1970s, there has been a significant increase in the use by farmers of motorised vehicles, especially two-wheeled motorcycles on what used to be pedestrian footpaths. However, this trend may have been reversed in the face of economic decline in Nigeria in the 1980s. For example, in Ayede and neighbouring villages where I did fieldwork in 1991/92, up to 80% of farmers who had motorcycles in the 1970s and early 1980s had sold their motorcycles or could no longer afford to keep them in serviceable condition by 1992. In Ayede and neighbouring villages therefore, and possibly in other parts of Ondo State, more farmers now depend on non-vehicular or non-motorised means of transport (i.e. journeys by foot, or by bicycle) than in the 1970s and 1980s for the often daily return trips to their farms, what Ojo calls 'the daily pulsing of population out to the

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<sup>69</sup> Toyin Falola, 'The Yoruba Caravan System of the Nineteenth Century', *IJAH*, 24, 1, 1991, pp. 111-112.

<sup>70</sup> Ekundare, *Economic History*, pp. 71-72; Falola, 'Yoruba Caravan', pp. 111-132.

<sup>71</sup> Ekundare, *Economic History*, p. 71.

farm and back to the town (or village).<sup>72</sup> The general decline in the use of motorised vehicles would most certainly have meant extra costs, in lost time and in productivity, for those who hitherto had been journeying to work in 'the speed and comfort' of motorised vehicles as well as for the local agricultural economy.<sup>73</sup>

The third, and in the present context final, form of farm roads may be called the farm road proper, that is roads designed and built primarily to increase the intensity of motorised vehicular traffic in agricultural communities. EAADP refers to this type of road as 'access roads', that is to say,

...farm roads...which start from a secondary road, a feeder road or an access road and serve important farm communities. The road has a traffic intensity of less than 20 vehicles/day and a width of 5m.<sup>74</sup>

Usually, a substantial proportion of roads in this sub-group has been employed as bush paths (as defined above) at some point in the past, and were subsequently expanded, usually 'by community effort under the supervision of the chiefs'.<sup>75</sup> Alternatively, they may have been expanded by government agencies eager to make politically strategic claims of commitment to, or success in, the development of rural infrastructure. Farm roads would usually, but not always, bear heavy, produce-laden vehicular traffic during the wet season, but they require major annual or periodic maintenance, for example regrading to fill up potholes, or some form of bridge-building to prevent total loss of the road surface to erosion.

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<sup>72</sup> Ojo, 'Observations', p. 459.

<sup>73</sup> Cf. Gaviria, Bindlish and Lele, 'Road Question', p. 8.

<sup>74</sup> Christensen [*Final Report*, p. 86] has described two other types of roads constructed by EAADP as follows: (a) 'Secondary roads which connect two major towns or villages, and have a traffic intensity of more than 100 vehicles/day. The road width is 8m'; and (b) 'Feeder roads, which start at a primary or secondary road and serve a number of villages or farm settlements. The road has a traffic intensity of 20-100 vehicles/day and a width of 6m.'

<sup>75</sup> Ekundare, *Economic History*, p. 72.

#### 4.6.2 Rural and Feeder Roads in Ondo State

Rural Ondo State is generally served by a very poor road network. Many feeder roads in the state are not tarred; most of those with any tarring were constructed during the 1950s and had all but disintegrated over the years from lack of maintenance. The situation has not been helped by changes instituted under the 1976 local government reform, by which local government authorities were assigned constitutional responsibility for rural roads without corresponding 'financial resources to develop a good network of rural feeder roads.'<sup>76</sup>

Yet, official data suggest that the state's rural road network is well above average by Nigeria's standards. According to the Idachaba report, the state's estimated total road length of 7,391 km. placed it in seventh position amongst Nigeria's nineteen states as of 1985. Only 13.3% (983.5 km.) of the state's total road length was however built up to federal government specifications while 36.0% (2,666.5 km.) met standards prescribed by the state government.

It follows therefore that 51% (i.e. 3,747 km.) of the state's estimated total road length belong to the 'residual' category, the ensemble of less standardized feeder roads controlled by cash-strapped local government authorities.<sup>77</sup> For a variety of reasons, including financial and technical, local government-controlled roads have traditionally excluded agriculturally strategic emergency roads and footpaths. At an estimated road density of 357 metres per square kilometre of land in its territory, Ondo State was ahead of fourteen states in terms of road density.<sup>78</sup> However, the 51.3% (i.e. 183 metres per sq. km.) share of feeder roads in the state's total road density compares with a mere 48 metres per sq. km. for federal roads. At 130 metres per square kilometre, Ondo State returned the highest density of state roads in the nineteen states.<sup>79</sup> As Ogundana has observed, Ondo's higher density of state roads might suggest that a greater proportion of

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<sup>76</sup> Idachaba, *Rural Infrastructures*, p. 12.

<sup>77</sup> *Ibid.*, Table 3, p. 15.

<sup>78</sup> *Ibid.*, Table 5, p. 17.

<sup>79</sup> *Ibid.*

distant agricultural land is being farmed in Ondo than in other states.<sup>80</sup> Thus although the report's calculations were based on incomplete information, they suggest clearly that Ondo State has a relatively good network of roads and that feeder roads provide the bulk of the state's road network.

#### 4.6.3 Rural and Feeder Roads in Ekiti-Akoko Area

The foregoing general views have found strong support in the report on the village listing exercise conducted in the project area in 1981 by APMEPU.<sup>81</sup> According to the report,

Households in the project area have relatively good road access... Good tar roads provide direct access to around one third of the households across the project, though nearly two thirds of all households appear to have access through some form of tar roads. Of the (five) Local Government Areas (in the project area), better quality tar roads are found more in Ekiti North, East and Central.<sup>82</sup>

Indeed, a remarkable 68% of the estimated farming population in the project area had direct access to tar roads (Table 4.6). In contrast, 28% of estimated farm families in the project area were served by laterite roads, while only 4% were condemned, as it were,

**Table 4.6**  
**EAADP: Main Road Types and Farm Families Served (1981)**

Local Government	Head-quarters	Road Types (%)					N <sup>o</sup> of farming families
		Good tar	Bad tar	Good laterite	Bad laterite	Footpath	
Akoko North	Ikare Akoko	27.0	48.0	12.0	12.0	1.0	28,650
Akoko South	Oka Akoko	11.0	65.0	- <sup>a</sup>	19.0	5.0	11,857
Ekiti Central	Ado Ekiti	45.0	20.0	9.0	25.0	1.0	9,730
Ekiti East	Omuo Ekiti	50.0	9.0	19.0	12.0	10.0	9,968
Ekiti North	Ikole Ekiti	57.0	5.0	- <sup>a</sup>	38.0	* <sup>b</sup>	15,343
Project mean		35.0	33.0	7.0	21.0	4.0	-

Notes: <sup>a</sup> means nil; <sup>b</sup> Less than 0.5%.

Source: APMEPU, 'Ekiti-Akoko Agricultural Development Project Report on the Village Listing Exercise' (Benin City, 1982), Table 6, p. 18.

<sup>80</sup> Ogundana, 'Transport Constraint', p. 79.

<sup>81</sup> The Agricultural Projects Monitoring, Evaluation, and Planning Unit, a semi-autonomous federal agency responsible for overseeing ADPs and irrigation schemes.

<sup>82</sup> APMEPU, 'Village Listing', p. 6.

to using footpaths. About 51% of the proportion with access to tar roads, or 35% of farm families in the project area, were served by 'good tar' roads while 49% (33% of all farm families) was served by 'bad tar' roads. Of the 28% of project population with access to 'laterite roads', only one-quarter (or 7% of all families) was served by 'good laterite' roads while the remaining three-quarters (or 21% of all families) were using 'bad laterite' roads.

In a deeper sense, however, APMEPU's up-beat picture of rural roads in the Ekiti-Akoko area is superficial and misleading. The report does not contain explicit operational definitions of its road categories. Except with the benefit of prior access to its (pre-report) working papers, therefore, APMEPU's criteria for classifying the project area's roads lie beyond immediate analytical reach, making serious criticism of its road categories difficult, if not impossible. Whatever they may be, APMEPU's criteria are likely to have been so broad to have obscured the differential distribution of road types between LGAs in the project area. APMEPU's conclusions have thus disregarded the intra-project dimensions of the rural road problem.

Although an average 35% of the project population had direct access to 'good tar' roads, only 27% and 11% of the estimated farm families in Akoko North and Akoko South LGAs respectively, was served by 'good tar' roads. In contrast, between 45% and 57% of farm families in Ekiti Central, East and North LGAs had direct access to 'good tar' roads. Farm families in Akoko North and South LGAs were equally disadvantaged, in relative terms, with regard to 'bad tar' roads, with between half and two-thirds of estimated farm families in the two LGAs being served by 'bad tar' roads. This is certainly poor in relation to Ekiti Central's 20%; it is even worse when compared with 9% and 5% for Ekiti East and Ekiti North LGAs respectively. Both 'bad laterite' and 'good laterite' roads seem to be fairly distributed throughout the project area, but 25% and 38% of farm families in Ekiti Central and Ekiti North LGAs respectively were being served by 'bad laterite' roads while 'good laterite' roads were statistically insignificant in Akoko South and Ekiti North LGAs. In short, APMEPU's view that farm families in the three Ekiti LGAs in the project area were better served by rural roads than their counterparts in Akoko North and South LGAs would seem justified.

In fact, however, roads in Ekiti Central, East, and North LGAs have been less well laid out than APMEPU's conclusions have suggested. While 'better quality tar roads [might be] found more in Ekiti North, East and Central',<sup>83</sup> road types in the three LGAs have not been well blended or networked. In relation to their counterparts in Akoko North and South LGAs, farm families in the three Ekiti LGAs were more sharply divided between 'good tar' and 'bad laterite' road types, polar opposites in the context of APMEPU's data. About 57% of estimated farm families in Ekiti North LGA were served by 'good tar' roads while about 88.4% of the remaining families (or 38% of all farm families) in the LGA only had access to 'bad laterite' roads. Since the use by farm families of 'good laterite' roads in Ekiti North LGA was statistically insignificant, it has to be assumed that the 2.0% of families who had no direct access to 'good tar' roads was served by footpaths. Ekiti North LGA thus combined the highest proportion of families served by 'good tar' roads with the highest percentage of farm families with direct access to 'bad laterite' roads!

Ekiti Central and Ekiti East LGAs' circumstances were no less remarkable. Farm families in Ekiti Central and East LGAs had access to every road type, but the differential distribution of access between the two LGAs and within each is remarkable. Two-thirds of all farm families in Ekiti Central LGA were by 1981 divided between 'good tar' roads and 'bad laterite' roads. Specifically, about half of estimated farm families in Ekiti Central LGA was served by 'good tar' roads while one-quarter made do with 'bad laterite' roads. 20% and 9% of farm families in the LGA was served by 'bad tar' and 'good laterite' roads respectively. This is not an exciting record, given that government's physical presence in present-day Ekiti Central LGA dates back to 1914, when Ondo Province was constituted.

Similarly, about half of estimated farm families in Ekiti East LGA was served by 'good tar' roads while an additional 19% had access to 'good laterite' roads in 1981. The latter figure is about 50.0% higher than the proportion for Akoko North and about double the corresponding figure for Ekiti Central LGA. Moreover, only 12% of farm families in

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<sup>83</sup> *Ibid.*



Ekiti East LGA, just about half of the proportion for Ekiti Central and one-third of Ekiti North's, was served by 'bad laterite' roads. Yet, an unusually high 10% of estimated farm families in Ekiti East LGA was bound up with footpaths! The last figure is double the rate for Akoko South, the only other LGA where more than 0.5% of farm families relied on footpaths.

In sum, the distribution of roads within the three Ekiti LGAs in the project area exhibits a remarkable imbalance between 'tar roads' and non-tar roads. This imbalance cannot be dismissed off-handedly as evidence of the anti-agricultural bias of Nigeria's development policy, rather a result of APMEPU's selective interpretation of its data. The 'better quality tar roads...in Ekiti North, East and Central'<sup>84</sup> are inter-state roads, politically significant highways linking Nigeria's second-tier administrative units which the federal government has consciously developed since the 1970s. One such highway starts in Aramoko in Ekiti West LGA (outside the project area), close to Ondo State's northwestern boundary with Osun State. After about ten kilometres of uneven road surface between Ido and Ifaki (Ero LGA), this highway intersects much of Ekiti North and East LGAs and connects Ondo State's northeastern communities with their cultural kith and kin in present-day Kogi and Kwara States (see map 2 on p. xvii). Another inter-state road starts from Ado (Ekiti Central LGA), passes through much of Ekiti Central and East LGAs as well as Akoko North LGA, linking up with what used to be Afemai and Akoko-Edo Divisions in present-day Edo State.

Notwithstanding their status as 'good tar' roads, the place in the local agricultural economy of the Aramoko-Omuo and the Ado-Ikare roads can be overstated. For one, both were by 1981 newly constructed, in relative terms, from the narrow and winding routes in much of the project area since the 1950s. Construction work on the Aramoko-Omuo road commenced after the advent of Ondo State in the 1970s, while the Ado-Ikare road was rehabilitated as late as 1981/82. The latter deteriorated rather quickly because of extremely poor construction standards and even poorer maintenance; by 1983, at least a five kilometre stretch of the road close to Ado (Ekiti Central LGA) and a number of

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<sup>84</sup> APMEPU, 'Village Listing', p. 6.

spots around Aisegba (Ekiti East), were virtually impassable to ordinary vehicles and had become no-go areas for produce-bearing lorries during the wet season.

APMEPU's emphasis on highways also ignores the year-on-year condition of feeder roads in the project area, understating the predicament of farm families who use non-tar roads to evacuate their produce to neighbouring periodic markets. In 1980, Oka (Akoko South) was cut off for at least one week after persistent rainfall made the only road link from Iwaro Oka to the south impassable to motorised vehicles. All journeys to Oka from the south were undertaken by foot, more so since the only motorable access road through Ikare and Epinmi to the north was about thirty kilometres away.<sup>85</sup> Now, Oka and Ikare had been key commercial long before the advent of Ekiti-Akoko ADP. In the 1950s, according to Galletti, Baldwin, and Dina, up to two-fifths of traders in Ikare's eight-day market came from Oka, selling yams, kola, and woven cloth.<sup>86</sup> It is reasonable to believe that such links between Oka and Ikare have expanded since the 1960s, heightening the costs to the local economy and farmers especially of poor road links between Oka and Ikare.

Similarly, the road that linked Igede farm settlement to Ayede became so bad that produce evacuation from Igede depended almost entirely on a tractor hired out to farmers in and outside the area by the Benin-Owena River Basin Development Authority.<sup>87</sup> The main economic and commercial route to Ayede from Oye, a 'good tar' in the 1970s, also became routinely impassable to commercial vehicles after each heavy downpour as lately as 1992. While Oka and Ayede may be isolated cases, each is surrounded by, and connected by road to, a cluster of villages whose access roads are even worse. To this extent, Ayede and Oka may very well reflect the year-on-year predicament of farm families in the remote but agriculturally important villages in what became the Ekiti-Akoko project area from 1981.

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<sup>85</sup> Personal knowledge.

<sup>86</sup> Galletti, Baldwin and Dina, *Cocoa Farmers*, p. 62.

<sup>87</sup> Personal knowledge.

#### 4.6.4 Significance of EAADP's Road Programme

Ekiti-Akoko ADP's road programme was significant not because it could induce a turnaround in the project area's rural road problem even in the medium term but because of its potential to regenerate vehicular transport and stimulate new commercial opportunities for farmers. At a total of 500 km. in roads constructed and routinely maintained over five years from 1981-85, and another two thousand kilometres maintained periodically over the same period, EAADP's target amounted to a modest beginning in a long process of socio-economic reconstruction in and outside the project area. The same would remain true even after due account has been taken of the 300 kilometre road improvement scheme added to the programme under the Kaduna agreement.

Available evidence for the late 1980s also support the view that EAADP's road construction targets were no more than a drop in the ocean. The project area has featured prominently in the rural road programme of the Directorate of Food, Roads and Rural Infrastructure (DFRRI), a federal omnibus agency established in 1986. Local government councils in the Ekiti-Akoko area accounted for 26.5% of DFRRI's feeder road programme in the state, which totalled 4,177.3 kilometres. More specifically, the project area's share amounted to about one-quarter of Phase I (total 1,405.4 km.); 27% of Phase II (1,339.0 km.); and 28.1% of Phase III (1,432.9 km.) of feeder roads constructed or rehabilitated by DFRRI up to 1991.<sup>88</sup>

The significance of EAADP's road programme lay therefore in the project's structural advantage vis-a-vis existing institutions and in the potential for results that arises from that structural attribute. At its inauguration in 1981, EAADP was simply the best endowed, both in the structural and long-term senses, to address the problems of poor road networking in the project area as well as combat seasonal bottlenecks in the more remote parts within it. For example, the very existence of EAADP's road programme implied a transfer of responsibility for rural roads in the project area from the respective Local Government Councils (LGCs) to the project. Implicit in this jurisdictional change

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<sup>88</sup> Ondo State DFRRI, 'The Journey so far' (Akure, n.d.), pp. 5-6.

was EAADP's unstated but nonetheless remarkable potential to address the problems of 'rural isolation, segmented rural markets and rural stagnation'<sup>89</sup>, themselves outcomes of years of urban-oriented development policies in Nigeria and the continuing knock-on effects on (the lack of effective) local government of the excessive politicisation of revenue allocation.

Because it had access to enormous financial and technical resources, EAADP seemed better placed than local government councils or even the state's Ministry of Works to articulate a more centralised and more co-ordinated approach to the rural road problem in the project area. After all, LGCs depend ultimately on financial grants from Nigeria's federal and state governments, both of which were hard pressed for cash during the 1980s. In fact, while Nigeria's second republic (1979-83) lasted, many state governments had refused to pass to their respective LGCs part of federal grants that were transferred through them (state governments). In the southwestern states then controlled by the defunct Unity Party of Nigeria (UPN), state governments exploited the party's welfare programmes, which they were implementing, to get their largely politically compliant LGCs to agree to share with them (state governments) the cost of providing essential public goods like pipe-borne water and primary education.

Nigeria's local government councils have not been remarkable, therefore, for providing basic infrastructure and related services without substantial direct assistance from federal and/or state governments. A pointed example of financial impotence or lack of political will at LGC level is furnished by the case of water supply in Ekiti North LGA. Since the late 1970s, a dam over the *Èlẹ* river in Itapaji (Ekiti North LGA) has provided pipe-borne water for many communities in the LGA. Since its commissioning, the dam has depended on two generating plants for power supply, but changes in Nigeria's economic fortunes in the 1980s had meant that spare parts were no longer readily available and that maintenance standards were declining. By the late 1980s, water supply from *Èlẹ* had become intermittent, largely because the dam's low capacity generators could no longer provide sufficient power to pump water to neighbouring communities.

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<sup>89</sup> Idachaba, *Rural Infrastructures*, p. 12.

By 1991, most communities in what may be called central Ekiti North (including Ikole, the LGC's seat) have been without pipe-borne water for at least two years. Some of the well-off and/or vehicle-owning residents travelled to villages connected to the *Èrò* dam to fetch water in plastic containers while others relied on an expanding but extremely informal water market.<sup>90</sup> But most residents had reverted to more pristine sources of potable but untreated water, such as streams and dug-out wells. By late 1992, the national power grid was yet to be extended over a ten-kilometre stretch from Ikole to Itapaji to upgrade the dam's power supply and increase its water supply capacity.

The above situation is most readily attributable to financial cutbacks to public sector agencies in the 1980s. But it raises a deeper question, namely that the capacity for essential technical-intensive construction and maintenance operations has either not been developed at all in Nigeria's public sector agencies or is not available at local government level. On the contrary, as Gaviria, Bindlish, and Lele have remarked, 'much of the institutional capacity built by the (World) Bank has been at the federal level, and outside the existing governmental structures.'<sup>91</sup> Even so, EAADP was closer to federal level agencies in 1979-83 than Ekiti North LGC or Ondo State's Ministry of Works. To this extent, the project had considerable potential to transform rural livelihoods in the project area by bringing the benefits of its relatively ready access to globally-sourced finance and technical expertise to bear on the supply of, and access to, infrastructure in the Ekiti-Akoko area.

#### 4.6.5 Analysis of Results

EAADP could not fully exploit, let alone realise, its potential to effect changes in the rural road situation in the project area. It constructed a total of 258 km. of all road types over four years to 1986. An additional 182 km. of roads were routinely maintained, but

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<sup>90</sup> Personal knowledge. On being checked into ODSADEP's guest house at Ikole in March 1992, a man offered to provide me with a bucketful of water per day for drinking and personal use- for an unspecified fee. Concerned about the health implications of the offer, I turned down ODSADEP's offer of free lodging and made alternative arrangements elsewhere. Since my options cannot be assumed for all locals, Ekiti North LGC's failure to restore power supply to the *Èle* dam may as yet trigger health problems for many helpless residents.

<sup>91</sup> 'Road Question', p. 5.

the project did not undertake any road improvement between 1983 and 1986.<sup>92</sup> Between February 1983 and June 1984 alone, EAADP constructed a total of seventy one culverts of various dimensions, that is to say thirty-one 0.6m, thirty-nine 0.9m. and one 1.2m diameter culverts. Two bridges and two box/beam culverts were also constructed over fifteen months to June 1984.<sup>93</sup> Of the 258 kilometres of roads constructed between 1983 and 1986, ten kilometres (about 4.0%) provided a new access road to Ikun in Ero LGA, east of Ekiti North, to replace the existing bridge and tar road that linked Ikun with Ekiti North LGA through Iye and Ayede, which had been washed away by flood from the Èró dam.

Table 4.7 presents information on the distribution by local government of EAADP's road programme in 1983 to 1986. The table suggests, among other things, that Ekiti LGAs

**Table 4.7**  
EAADP's Road Programme, 1983-86 (Km. by LGA)

Local Government	Construction		Maintenance	
	Km.	% of total	Km.	% of total
Akoko North	56.02	21.7	26.0	14.3
Akoko South	46.48	18.0	14.0	7.7
Ekiti Central	36.60	14.2	35.0	19.2
Ekiti East	59.46	23.0	26.0	14.3
Ekiti North	48.98	19.0	81.0	44.5
Ero	10.50	4.1	-	-
Total	258.04	100.0	182.0	100.0

Source: EAADP, *Internal Completion Report*, Table 3.1b, between pp. 78-79.

accounted for 56% and 78% of roads constructed and maintained by the project respectively. The former figure excludes the ten-kilometre access road to Ikun; if this was included, Ekiti LGAs' share of roads constructed by EAADP would rise to 60% of the total. Table 4.7 also suggests that Ekiti East and Akoko South LGAs each accounted for over 20% of newly constructed roads, followed closely by Ekiti North LGA with 19% of all newly constructed roads and a remarkable 45% of roads maintained by the project.

<sup>92</sup> EAADP, *Internal Completion Report*, pp. 78-79.

<sup>93</sup> Christensen, *Final Report*, p. 89.

This supports my criticism of APMEPU's view on the quality of roads in Ekiti LGAs, more so if one assumes that EAADP's choice of roads for construction and/or rehabilitation was informed by social need and potential contribution to agricultural production.

Overall, EAADP achieved 52.0% of its original road construction target. If the 300 kilometre road improvement scheme integrated into EAADP's programme in 1983 was included, the completion rate would amount to 21.5%; otherwise it is 19.0% if excluded. As Table 4.8 shows, project performance varied widely on an annual basis. In 1983,

**Table 4.8**  
EAADP's Road Programme Components, 1983-86 (kilometres)

Activity	1983		1984		1985		1986		Total		
	T <sup>a</sup>	A <sup>b</sup>	T	A	T	A	T	A	T <sup>c</sup>	A	% <sup>d</sup>
Construction	60	62	75	106	50	35	40	55	275	258	94.0
Improvement	60	-	75	-	50	-	40	-	275	-	0.0
Routine maintenance	-	6	25	18	40	69	60	89	125	182	146.0
Periodic maintenance	100	-	340	-	640	-	840	-	1920	-	0.0
Total	220	68	515	124	780	104	980	144	2320	440	19.0
% achieved <i>excl. improvement</i>	30.9		24.1		13.3		14.7		19.0		
	42.5		28.2		14.2		15.3		21.5		

Notes: <sup>a</sup> SAR target; <sup>b</sup> Achieved; <sup>c</sup> Total target for construction component includes 50 km. for 1982, before the road programme commenced. <sup>d</sup> Total achieved as % of overall target for each programme component.  
Source: EAADP, *Internal Completion Report*, Tables 3.1a and 3.2, p. 76 and p. 79 respectively.

EAADP recorded a 31% completion rate or about 43% if the road improvement scheme was excluded. The ratios dropped to 24% and 28% respectively in 1984, declining even further in 1985. By 1986, project achievement stood at about half of its 1983 completion rate on SAR target. Even so, EAADP undertook no improvement or periodic maintenance of any type of rural roads.

The above outcomes could be explained in various ways. Ekiti-Akoko's financial and

staffing difficulties, about which much has been said in chapter 3, delayed the road programme by one year and affected its momentum in other ways. Comparatively, EAADP's completion rate was the lowest among its contemporaries. According to Gaviria, Bindlish and Lele, road construction output was higher in Nigeria's early enclave ADPs than in late enclave projects. Of five early enclave projects, only Funtua failed to meet its road construction target; even so, its 69.5% completion rate was remarkable (see Table 4.9). Gusau achieved 100% completion rate, while the remaining three early enclave ADPs exceeded their targets by between 28.2% and 41.2%. In contrast, Bida ADP posted 71.5% completion rate, probably because it commenced operations in the relatively favourable climate of 1979, while EAADP's completion rate was about 52.0%. Road construction was therefore prosecuted more forcefully in early than in late enclave ADPs.

**Table 4.9**  
**Road Construction by Nigeria's Enclave ADPs (Targets and Achievements)**

Particulars	Target (km.)	Actual (km.)	Completion rate (%) <sup>a</sup>
<b>Early Enclave Projects</b>			
Funtua	750	521	69.5
Gombe	500	706	141.2
Gusau	750	750	100.0
Lafia	600	807	134.5
Ayangba	1,300	1,667	128.2
<b>Late Enclave Projects<sup>b</sup></b>			
Bida	620	429	71.5
Ekiti-Akoko	500	258	51.6

Notes: <sup>a</sup> Actual expressed as percent of target. <sup>b</sup> Two other late enclave ADPs (i.e. Oyo North and Ilorin) are not included because of insufficient data.

Source: Gaviria, Bindlish, and Lele, 'Road Question', Table 5, p. 13.

Early enclave ADPs' higher accomplishments in road construction has been attributed variously to personnel, organisation, and financial factors, but funding seemed to be most important. Early enclave ADPs did experience fleeting financial difficulties, but large scale cutbacks in project funding became prevalent only after 1980/81. In Gusau ADP, actual recurrent funding increased from 43.4% of the estimated annual cost during 1974/75 to 80% in 1975/76. Funding declined in 1976/77 and 1977/78 but picked up in



Gusau's final investment year.<sup>94</sup> Relatively favourable economic and financial conditions in mid- to late 1970s has meant that early enclave ADPs met their operational targets better than projects which opened shop from about 1980. To quote Gaviria, Bindlish and Lele once more,

...the better performance in Gusau, compared to Funtua and Gombe, was due to the employment of an expatriate full-time road engineer...and to the integration of the road and dam construction program. The road construction program turned out to be the most successful component of both Lafia and Ayangba...These earlier projects had a larger share of total costs (of between 17.3% and 24.0% and averaging 18.1% each, compared with EAADP's 8.4% and Bida's 10.8%) allocated to road investments as a proportion of total project costs. One reason project authorities may have emphasised road construction in the early enclave projects is because of...the fast disbursements (of funds) and the urge to start projects at early stages of implementation...<sup>95</sup>

Ekiti-Akoko ADP's road programme was also hampered by internal-structural factors. The programme seemed to have been planned and implemented without reference to institutional agencies which have had responsibility for the construction and maintenance of rural roads. These are in the main local government councils and the Public Works Department of the State's Ministry of Works and Housing. It is true, as indicated earlier, that technical and institutional capacity at local and state ministerial levels were low by modern standards. However, these agencies were more familiar with the terrain; to this extent, EAADP could have benefited from establishing appropriate linkages with them. It was expected, for example, that EAADP would absorb the 'lengthman system', the network of manual labourers responsible for routine maintenance of rural roads (i.e. doing the road hedges, filling potholes, emptying the drains or otherwise channelling erosion during the wet season) and in the dry season became part of the staff that undertook periodic maintenance of roads. That EAADP did not absorb these manual labourers may be explained in part by its own financial predicament or institutional jealousy. But this denied it the manual labourers' localised experience, the more so since the project did not dedicate staff to rural road maintenance but relied on direct labour to

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<sup>94</sup> Adefolu Akinbode and J. Y. Yayock, 'Recurrent Financing of Agricultural Services in Nigeria's Agricultural Development Projects', in John Howell (ed.), *Recurrent Costs and Agricultural Development* (1985), p. 193.

<sup>95</sup> Gaviria, Bindlish and Lele, 'Rural Road', p. 15. Cf. Ukoje and Baba, 'Ayangba', pp. 230-231; Adejo, 'Impact', pp. 195-196.

man its two road construction units until 1984.<sup>96</sup> New technical skills which may have been transferred in the process are likely to have been confined to project staff. The lack of local linkages partly explains the dramatic decline in EAADP's target completion rates, especially after 1984.

#### **4.7 Conclusion**

Infrastructure supply in rural Ondo State, and in the Ekiti-Akoko area in particular, has been so poor that a turnaround over a five-year period seemed grossly ambitious. This applies less to institutional infrastructure, such as cooperative societies and farmers' groups and more to physical infrastructure, such as roads and input storage and distribution facilities. In the former, progress has depended as much on the advance of commercial production in rural society as on local institutional adaptation; in the latter, costs and investments are most certainly beyond the reach of local people. There has always been a substantial scope, therefore, for project-type interventions both to stimulate access and to reduce the costs of production in rural Ondo State.

Ekiti-Akoko ADP's infrastructure development programme emphasised physical infrastructure, with some elements so superfluous as to suggest a technological overkill. Irrigation dams are difficult to justify economically in an area in which rain-fed agriculture is predominant, plots are small and communal identities are closely associated with the land. Farm service centres were also distributed on the basis of the equality of local government areas and an apparent desire for balance between Ekiti and Akoko, the two sub-ethnic groups in the project area. Alternative criteria based on potential demand, as measured by different aspects of population density, showed that the apparent concern for equity in EAADP's distribution criteria was false and mistaken. They deprived some sections of the population while favouring others, and in any case reinforced the primacy of political factors even on a demand-led question like the distribution and delivery of inputs and farm services.

Finally, EAADP's rural roads programme was informed by a selective interpretation of

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<sup>96</sup> Christensen, *Final Report*, p. 88.

APMEPU's survey of Ekiti-Akoko roads. The report emphasised supply problems more at the interface between villages and neighbouring towns than between villages and between villages and farmsteads, hence its upbeat but misleading conclusions on Ekiti-Akoko's rural and feeder roads. Closer analysis showed that the roads in the area were and remain less integrated than APMEPU suggested, and in any case that many feeder roads become impassable once the rains set in each year.

As a whole, project performance in all respects was far from successful. One reason was its precarious finances. Unlike enclave ADPs which commenced operations in the 1970s, EAADP operated under the inclement financial and policy circumstances of the 1980s. In addition, it suffered a high turnover of senior staff, both local and expatriate.

The project's infrastructure programme was also afflicted by design weaknesses. For example, the programme was planned without reference to existing cognate agencies - the cooperatives department in the case of cooperative societies, and local government councils in the case of rural roads - let alone the people themselves. As Karunaratne's detailed analysis of India's community development programme since 1952 showed,<sup>97</sup> the lack of popular participation in the design of rural development has existed long before the advent in the 1970s of IRD projects. Even so, local interest could have been activated during programme implementation, as Olujimi and Egunjobi's review of experience in Akoko area in the 1950s has suggested.<sup>98</sup> Local participation also made the difference between success and failure in infrastructure development programmes in two cases in Ogun State studied by Ekong and Sokoya.<sup>99</sup> By going it alone, and failing to link up with cognate agencies and host communities, EAADP denied itself the localised experience of existing staff, constraining the potential for skills transfer in such technical areas as road construction and maintenance and the overall success of its own

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<sup>97</sup> Garvin Karunaratne, 'The Failure of the Community Development Programme in India', *CDJ*, 11, 2 (1976), pp. 95-111.

<sup>98</sup> Bayo Olujimi and Layi Egunjobi, 'Public Participation in a Village Regrouping Scheme', *CDJ*, 26, 3 (1991), pp. 165-171.

<sup>99</sup> E. E. Ekong and L. Sokoya, 'Success and Failure in Community Development Efforts: A Study of Two Cases in Southwestern Nigeria', *CDJ*, 17, 3 (1982), pp. 217-224.

programmes.

Still, EAADP's disappointing results have been consistent with other experiences of project-based infrastructure development. Gaviria, Bindlish and Lele have remarked, for example, that Nigeria's ADPs have often been more successful in road construction than in the pursuit of their agricultural goals.<sup>100</sup> Conyers and Warren have also suggested that IRD projects, like mainstream government departments, have tended to emphasise physical facilities, such as irrigation and roads, more than institutional infrastructure. This is because physical facilities are 'easier and quicker to achieve and more visible',<sup>101</sup> providing project managers and politicians alike with immediate results for which they could receive credit, and, in some cases, upon which more or less remarkable political and economic fortunes could be built. Yet, physical infrastructure construction constitutes the line of least resistance in directed economic change, a turn-key task for which IRD projects need not (and have often failed to) develop local institutional capacity.<sup>102</sup> It is not enough, therefore, to assess infrastructure development programmes in terms of programme targets. As this chapter has shown, it is more realistic to put programme targets and achievements in the context of local demand for and supply of infrastructure as well as the development of local institutional capacity.

The second major issue raised in the wider literature concerns financial constraints and the dilemmas they throw up for infrastructure development. The available evidence is that rural infrastructure has been a low-priority issue for cash-strapped governments in Nigeria and elsewhere. As such, rural infrastructure budgets are soft options, the first to be affected by financial cutbacks. Urban areas are almost always treated more favourably, partly because they are politically important, and partly because the maintenance of existing services, disproportionately located in urban commercial and administrative

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<sup>100</sup> 'Road Question', p. 24.

<sup>101</sup> Diana Conyers and Dennis Warren, 'The Role of Integrated Rural Development Projects in Developing Local Institutional Capacity', *MPD*, IV, 1 (1988), p. 32.

<sup>102</sup> *Ibid.*

centres, often puts less pressure on available (and usually dwindling) resources.<sup>103</sup> As Idachaba has shown however, this argument not only reflects previous urban bias in development spending; it also overlooks the enormous potential economic gains from a well-serviced network of productive infrastructure in rural areas.<sup>104</sup> One way out of the 'recurrent expenses trap' might be to emphasise rehabilitation of existing facilities over and above new construction, as Nigeria's ADPs have been doing since the mid-1980s.<sup>105</sup> Even so, it is almost impossible for government to provide all the funding required to bridge the massive want-get gap in rural productive infrastructure.

Another compelling option, therefore, is to involve the rural population in infrastructure development, both to create a sense of belonging and as part of a longer-term process of empowerment. As Gow and Vansant have argued, rural participation is more easily advocated than attained in practice.<sup>106</sup> But that is not sufficient reason to preclude greater commitment to 'the learning process approach', the more flexible and less perfect but people-centred counterpoint to Nigeria's experience of top-down approaches.<sup>107</sup> It is in any case necessary to go beyond conceptions of rural participation which assign secondary roles to rural dwellers. Self-help schemes have generally promoted local participation in Nigeria and elsewhere,<sup>108</sup> but increasing government involvement has distorted the social leverage effect which made them attractive in the first place.<sup>109</sup>

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<sup>103</sup> Michael Lipton, 'Agriculture and Central Physical Grid Infrastructure', in Mellor, Delgado and Blackie, *Food Production*, pp. 210-226.

<sup>104</sup> Idachaba, 'Commentary', pp. 233-234.

<sup>105</sup> Gaviria, Bindlish and Lele, 'Road Question', p. 13.

<sup>106</sup> D. Gow and J. Vansant, 'Beyond the Rhetoric of Rural Development Participation: How Can it be Done?', *WD*, 11, 5 (1983), pp. 427-45.

<sup>107</sup> David C. Korten, 'Community Organisation and Rural Development: A Learning Process Approach', *Public Administration Review*, 40, 5 (1980), pp. 480-511.

<sup>108</sup> See Ephraim N. Madu and E. F. Umehali, 'Self-Help Approach to Rural Transformation in Nigeria', *CDJ*, 28, 2 (1993), pp. 141-153; and Awa, *Transformation*, Part II. For wider experiences, see Hamer, 'Preconditions'.

<sup>109</sup> See Barkan, McNulty, and Ayeni, 'Voluntary Associations'. For wider commentary, see Frank Holmquist, 'Self-Help: The State and Peasant Leverage in Kenya', *Africa*, 54, 3 (1984), pp. 72-91; and Barkan and Holmquist, 'Peasant-State Relations and the Social Base of Self-Help in Kenya', *WP*, 41, 3 (1989), pp. 359-80.

Since the 1980s, in Nigeria, self-help schemes have become a means of fudging state responsibility for infrastructure development even in such obvious cases as police buildings and equipment.<sup>110</sup> More specifically, self-help has enabled military and civilian administrations alike to transfer primary responsibility for financing rural infrastructure to the people without allowing corresponding social involvement in programme design and management.<sup>111</sup>

Whatever options are adopted, rural infrastructure development is far too important to be left to market forces alone. Roads of all types and institutional facilities provide the context for agricultural change and serve as incentives to individuals to expand production or at least adopt new practices with similar potential. Investment in rural infrastructure is therefore 'commenced business'.<sup>112</sup> To pursue infrastructure development half-heartedly or stop mid-way either because of short-term financial reasons, or as has become more common since the 1960s, because of urban-induced pressure on available resources, is to deny opportunities for economic growth and self-development to both the rural population and the wider economy.<sup>113</sup>

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<sup>110</sup> Tom Forrest, *Politics and Economic Development in Nigeria* (Boulder, 1993), p. 227.

<sup>111</sup> Leo O. Ogba, 'Problems in Community Participation and Rural Development Administration: The Case of Abriba Community in Imo State, Nigeria', *QJA*, 25, 2 (1991), pp. 167-182.

<sup>112</sup> To appropriate Michael Lipton's phrase in 'Land Reform as Commenced Business: The Evidence Against Stopping', *WD*, 21, 4 (1993), pp. 641-657.

<sup>113</sup> Idachaba, 'Commentary'.

## Chapter 5

### Farming Systems in the Ekiti-Akoko Area

#### 5.1 Introduction

Linkages between indigenous perceptions of the environment and small-farmer agronomy have provoked a substantial debate in the literature.<sup>1</sup> This chapter shows, with respect to the Ekiti-Akoko area, that peasant methods are often the result of careful attempts by 'the man who farms the field [to make] the best compromise he can between opposing considerations'.<sup>2</sup> Official concern since the 1940s for large scale farms and technical efficiency, it is also shown, has ignored considerable syncretism between traditional and modern farming techniques at the small-farm level, diminishing the scope for mutuality between the two.

Four specific analytical tasks are attempted. The first is to describe aspects of what Polly Hill calls 'indigenous economics', that is how small farmer factor combinations and production possibilities reflect 'local experimentation and local tradition, adapted to soil, climate, crops, and levels of technology'<sup>3</sup> in the project area. Second, the chapter highlights some of 'the ecological and technical skills'<sup>4</sup> that small farmers bring to bear on crop production and farm management in the food sub-sector. The third objective is to identify the major social and economic considerations that inform small farmers' production decisions. Finally, the chapter examines the production and ecological implications of changing attitudes to nature and its bounties.

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<sup>1</sup> Compare J. Faye, T. Gallali and R. Billaz, 'Peasant Agronomy: A Challenge to Planners's Models?', *AE*, II, 4 and III, 1 (1977), pp. 37-46; and Paul Richards, 'Ecological Change and the Politics of African Land Use', *ASR*, 26, 2 (1983), pp. 1-72; with Michael Watts, "Good Try, Mr. Paul": Populism and the Politics of African Land Use', *ASR*, pp. 73-83.

<sup>2</sup> O. T. Faulkner, 'Experiments on Ridged Cultivation in Tanganyika and Nigeria', *TA*, XXI, 9 (1944), p. 178.

<sup>3</sup> Hill, 'A Plea for Indigenous Economics: The West African Example', *EDCC*, 15, 1 (1966), p. 13; cf. her *Development Economics on Trial* (Cambridge, 1986).

<sup>4</sup> Richards, 'Ecological Change', p. 2; and 'Farming Systems and Agrarian Change in West Africa', *PHG*, 7, 1 (1983), pp. 1-39.

The narrative is rendered in the ethnographic present for at least three reasons. First, farming systems research seems most appropriate to low-level synchronic description and is dominated more by geographers and anthropologists than by historians. Second, traditional practices die hard: changes in general farming patterns are largely indistinguishable, though it is possible to identify possible direction(s) of change. Finally, the practices described below draw upon anecdotal evidence, including my own experience, as well as secondary literature.

The chapter comprises four main sections. The next section summarises official perceptions of the peasant alongside the views associated with farming systems research. The objective is to highlight the main contours of official policy in Nigeria since the 1920s, and to show that policy-makers had been slow to appreciate peasants' viewpoints. In section three, I present survey evidence on land use and examine factor requirements in the Ekiti-Akoko project area. Section four analyzes local farm and crop management practices, while section five describes continuity and change in strategies for coping with pests and other environmental hazards. A final section concludes the chapter.

## **5.2 Indigenous Knowledge and Agricultural Development**

Atte has identified a 'we-them' or 'emic-etic' dichotomy in perceptions and evaluations of rural production and farm management methods.<sup>5</sup> The 'we' or 'emic' element comprises small-scale rural producers who insist on the sanctity of their indigenous knowledge systems, and would adopt new practices only *after* sufficient experimentation to cut losses and reduce potential risks. To the 'they' or 'etic' sub-group belong academic experts, extension agents, policy managers, and international development agencies, who assume away important elements of the peasant's environment *a priori* and expect rural producers to share their usually market-inclined values and social priorities. Hence, peasant experimentation is conceived in official circles as risk aversion, laziness or utter rural conservatism rather than credible attempts at 'bridging' the known and the unknown. The signal absence of effective interface between both has also encouraged a

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<sup>5</sup> D. O. Atte, 'Resources and Decisions: Peasant Farmer Agricultural Management and its Relevance for Rural Development Planning in Kwara State, Nigeria', Ph.D thesis, University of London (1980), pp. 1-2.



comparative method that is almost always inclined against small farmers.<sup>6</sup>

Atte's framework is valid for analytical purposes, but the choice of nearly-mutually exclusive terms could easily overstate the differences between peasant and non-peasant methods. A 'we-them' perspective could also understate significant meeting points between both, and more importantly, the considerable peasant-led syncretism described below in the case of Ekiti-Akoko's farmers. Since the 1920s, Nigeria's agricultural policy initiatives have been clearly supportive of a market-led strategy to promote larger farm sizes and intensive cultivation in the small farm sector. Similarly, very few, if any, students of Nigerian agriculture have been explicitly opposed to technical change in the long-term, as indicated in chapter 3.<sup>7</sup> In both cases, the intensity of support for market-based strategies, or sympathy for peasant methods and viewpoints, has varied - between colonial and post-colonial regimes; between administrations within either regime; and, above all, between social science disciplines. The sharpest epistemological differences have been between economics and the more qualitative social science disciplines, over the relationship between intuition, 'observation, induction from observations, and inference from "a priori" principles...'<sup>8</sup> But the real question has been not between market and non-market preferences; rather the strictly economic rationality and growth potential of traditional farming in a largely peasant-based but market-oriented economy.

Four main issues have been debated most recurrently: (a) whether, given the stock of available capital, including technical knowledge and skills, peasant production could provide substantial opportunities for efficient, market-led agricultural change;<sup>9</sup> (b)

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<sup>6</sup> *Ibid.*; compare Eric Clayton, 'Research Methodology and Peasant Agriculture', *FE*, VIII, 6 (1956), pp. 27-32; and Anne Martin, 'A Note on Research Methodology and Peasant Agriculture', *Farm Economist*, VIII, 9 (1957), pp. 47-48.

<sup>7</sup> Gavin Williams, 'Ideologies and Strategies for Rural Development: A Critique', in his *State and Society in Nigeria* (Idanre, 1980), pp. 135-136.

<sup>8</sup> Frank H. Knight, 'Anthropology and Economics', *JPE*, XLIX, 2 (1941), p. 254. This article reviews M. Herskovits' book of the same title and shows how deeply divided the social sciences are on conceptual and methodological issues. Forty years on, Michael Watts' rejoinder, 'Populism', raised similar arguments in virtually the same terms against Richards' review article, 'Ecological Change'.

<sup>9</sup> The *locus classicus* remains Theodore Schultz, *Transforming Traditional Agriculture* (New Haven, 1964).

whether technical change must come from outside, and if so, the place of peasants' gradualist approach within a dual organisational framework;<sup>10</sup> (c) how best to increase agricultural production and productivity in the short and medium terms, to meet expanding demand for food by urban consumers;<sup>11</sup> and (d) what benefits could be offered modern agriculture by traditional farmers - for example, on key social issues like environment, resource regeneration, and sustainability.<sup>12</sup>

On each of these issues, a continuum of non-mutually exclusive views can be constructed, with strands of major scholarly positions located on different points and, in some cases, opposite ends of the spectrum. Few scholars would now doubt the price response capacity of African peasants, as research on export crop production has shown so well.<sup>13</sup> Nor is there any question about small farmers' general willingness to adopt innovations once they are convinced that the marginal cost of adopting a new technique is lower than the respective opportunity costs.<sup>14</sup> The problem, from the policy viewpoint at least, has been with the technical flexibility of peasants' methods, especially in the short term; their willingness to take risks in order to try new factor combinations; and the *speed* with which they have adopted new technical advances. Ekiti-Akoko farmers' experiences on these questions are detailed in sections 3, 4, and 5 of this chapter, but first, a summary of the policy and research contexts.

Since the 1920s, policy perceptions of peasant production have ranged from explicit

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<sup>10</sup> Cf. H. Myint, 'Organisational Dualism and Economic Development', *ADR*, 3, 1 (1985), p. 26.

<sup>11</sup> R. Cohen, 'Introduction: Guidance and Misguidance in Africa's Food Production', pp. 1-30; and Christopher L. Delgado, 'Setting Priorities for Promoting African Food Production', pp. 31-46; in Cohen (ed.), *Satisfying Africa's Food Needs* (1988).

<sup>12</sup> David Barker, J. Oguntoyinbo and Paul Richards, 'The Utility of the Nigerian Peasant Farmer's Knowledge in the Monitoring of Agricultural Resources', *MARC Report No. 4* (1977); cf. Paul Richards, '"Alternative" Strategies for the African Environment: "Folk Ecology" as a Basis for Community Orientated Agricultural Development', in Richards (ed.), *African Environment* (1975), pp. 102-114; David Brokensha, D. M. Warren, and Oswald Werner (eds.), *Indigenous Knowledge Systems and Development* (Lanham, 1980).

<sup>13</sup> For a survey, see G. K. Helleiner, 'Smallholder Decision Making: Tropical African Evidence', in L. G. Reynolds (ed.), *Agriculture in Development Theory* (New Haven, 1975), pp. 27-52.

<sup>14</sup> O. T. Faulkner and J. R. Mackie, *West African Agriculture* (Cambridge, 1933), p. 7.

support through benign indifference to relative hostility. The rationale for official positions have also changed more or less dramatically. An oft-cited and far-reaching example of early official support was in the 1920s, when Nigeria's colonial government rejected attempts by Unilever to establish plantations in south-eastern Nigeria, opting instead for a peasant-led agricultural strategy. At a meeting held on 9 January 1925, Sir Graeme Thompson, then Governor of Nigeria, had told a delegation led by Lord Leverhulme, that

native holdings of land were almost entirely tribal or communal and *not* personal and that they were held in trust for existing and future generations of the tribe or community and it was the declared policy of...Government on no account to permit or acquiesce in any method of acquisition of such tribal lands by European (or any) capitalists and this even if the native holder was willing to dispose of the land.<sup>15</sup>

In 1927, Governor Hugh Clifford justified the administration's opposition to the granting of long leases or freehold titles to the plantation lobby.<sup>16</sup> According to Clifford, the administration was not opposed to competition in the global oil-palm market but feared the backwash effects on local producers of the existence of technically more efficient oil plantations with European capital and vast connections. If government gave its approval, he went on, the plantations would be entirely foreign both in origin and orientation. There was a real possibility, therefore, that Africans would be structurally disadvantaged, or worse still, excluded from the benefits of plantation agriculture.

Hancock regarded the above position as the triumph of 'applied ethics' at a time the government ought to have taken steps to

command an increasing revenue [and encourage] organisations upon a modern and scientific basis [which], by force of example and pressure of competition... [could] exert a vigorous influence upon indigenous society, hastening the day when it will be able to fend for itself...[Plantations] will compel the Native society to discard its 'mystical-magical technique' and to substitute an 'active' conception of land-ownership for its own traditional 'passive' conception. The Native system of ownership and production belongs

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<sup>15</sup> CSO26/31071/Vol. I, NAI. Notes taken most probably by F. M. B. Baddeley, Chief Secretary to Government.

<sup>16</sup> Minute 03277/187 of 21 March 1927, *ibid.*, p. 43.

to a sociological phase which has already passed...<sup>17</sup>

Usoro has also assessed the agricultural impact of this strategy with regard to oil-palm production, but details are not necessary here.<sup>18</sup> The point of immediate interest is two-fold. First, official preference for a peasant strategy was based more on political than economic considerations, reflecting as much the administration's shaky hold on power and the fear of civil uprising as the underlying policy of promoting change with minimum social disruption. In mid-1936, for example, L. G. Shenton, writing on behalf of the Chief Secretary to the Government, noted that

[p]lantations require labour for which local supply is probably inadequate. It is most undesirable to turn a peasant owner into a mere farm labourer, but an even greater danger may result from the introduction into a plantation area of large bodies of labourers imported from outside and from the consequent disturbance of tribal balance and local custom.<sup>19</sup>

Secondly, even in the 1920s, several senior colonial functionaries were unconvinced about the long-term feasibility of a peasant-led agricultural strategy. In December 1925, Captain J. Davidson, Acting Lieutenant Governor of the Southern Provinces, and H. R. Palmer, his opposite number in the north, prepared separate memoranda supporting long leases and freehold rights but with various safeguards.<sup>20</sup> R. H. Rowe, Commissioner for Lands, and J. R. Mackie, latterly Director of Agriculture, also wrote a joint memo along similar lines.<sup>21</sup> All the changes proposed in the memoranda were rejected by the administration.

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<sup>17</sup> W. K. Hancock, *Survey of Commonwealth Affairs*, Vol. II (1942), pp. 174-175; cf. A. G. Hopkins, *An Economic History of West Africa* (1973), pp. 210-214. On the exacting 'revenue crisis' of the early colonial state in Nigeria, see I. M. Okonjo, *British Administration in Nigeria 1900-50* (New York, 1974), pp. 24-36; cf. Keith Hart, *The Political Economy of West African Agriculture* (Cambridge, 1987), p. 83f.

<sup>18</sup> E. O. Usoro, 'Colonial Economic Development Strategy in Nigeria 1919-1939: An Appraisal', *NJESS*, 19, 1 (1977), pp. 121-142.

<sup>19</sup> Minute 3107/41, 1 June 1936, CSO26/31071/Vol I, NAI, p. 43.

<sup>20</sup> *Ibid.*, pp. 3-5 (Davidson); and pp. 6-10 (Palmer).

<sup>21</sup> *Ibid.*, pp. 14-20.

Yet, in the early 1920s, the newly established national Department of Agriculture started articulating an extension strategy which sought to promote mixed farming and crop rotation as part of a long-term transformation of peasant farming (on which more in chapter 8).<sup>22</sup> Paradoxically, Odin Faulkner, Director of Agriculture from 1922, and Mackie, his Deputy, were utterly contemptuous of small native farmers, the largest segment of their public and presumed beneficiaries of their programme. According to them, Nigerian peasants were almost always unable to define their self-interest in material terms, could not channel new knowledge into productive ends, and tended to suffer from the fallacy of misplaced concreteness. For example,

[i]f a party of African farmers is taken round a farm, it does not seem to matter how much explanation is given, or how much the important points are emphasised, the points that the visitors will especially observe and remember are the regular shape of the plots and the straightness of the lines of plants. If demonstrations of grafting are given, the shape of the knife used will attract the most interest. Invariably some entirely unimportant point will seem to monopolize interest, and apparently even be regarded as the essential point.<sup>23</sup>

By the 1930s, therefore, official attitudes to the peasantry in Nigeria and elsewhere had come full circle. Having savoured the fiscal pay-offs of a booming commercial sector, colonial authorities had become more tolerant of anti-competitive practices by big business and less directly supportive or protective of peasants in the 1940s.<sup>24</sup> This position could be illustrated with two articles, one more academic than the other, and both published in the same issue of *Farm and Forest*, a journal presumably 'devoted to the interests of land use and rural planning in [colonial] West Africa'. The articles are not necessarily more representative of viewpoints in the 1940s than others, but they sufficiently outline the main elements in the changing official conceptions of and responses to the peasant phenomenon in Nigeria and elsewhere.

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<sup>22</sup> O. T. Faulkner, 'Aims and Objects of the Agriculture Department in Nigeria', *First Annual Bulletin of the Agriculture Department* (1922), pp. 1-14.

<sup>23</sup> O. T. Faulkner and J. R. Mackie, *West African Agriculture* (Cambridge, 1933), pp. 80-81.

<sup>24</sup> Sara Berry, 'Inconclusive Encounters: Farmers and States in the Era of Planned Development', in her *No Condition is Permanent* (Madison, 1993), pp. 48-53.

The first is Captain E. F. Haig, Nigeria's Chief Registrar of Co-operative Societies in the 1940s. In 1945, Haig had argued that peasant agriculture was 'unsatisfactory economically' because it sacrificed 'the demands of economic efficiency to individual liberty of action...traditional habits...and family life...'<sup>25</sup> This could mean that the objects of economically efficient behaviour are contrary to the preservation or promotion of individual liberty and family life. But Haig thought otherwise, not least because he expected that his proposed cooperative settlements *would* help establish 'a rural economy which combines the efficiency of the plantation system with the liberal advantages of peasant cultivation.'<sup>26</sup>

In fact, Haig's 1945 proposal merely updated an earlier one under which peasants or their offspring could have been compelled to work in state-owned plantations. In a memorandum dated 22 April 1940, Haig had proposed a compulsory settlement scheme for youths who could not make it to middle schools after elementary education and did not seem fit for employment as clerks or artisans.<sup>27</sup> Where local demand for middle school places or employment exceeded available supply, as it most certainly did, Haig suggested that examinations be 'stiffened and the unemployed residue urged or compelled to take up individual farming or join a cooperative agricultural settlement.'<sup>28</sup>

Haig had justified the compulsory nature of the scheme on three grounds. The first was that the youths' parents were not knowledgeable enough to provide sound advice to their offspring, and there was nothing like a body of public opinion to provide general guidance. Second, the state had a duty to act positively to combat rising unemployment and urban drift among youths. Finally, the state's right to employ compulsion was reinforced by the annual expenditure of £250,000 on the scheme, about three pence (3d.) per capita! Even if plantation agriculture had the attractions envisaged by Haig, the point

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<sup>25</sup> Haig, 'Co-operative Agricultural Settlements: An Experiment in Civilisation', *FaF*, VI, 1 (1945), p. 36.

<sup>26</sup> *Ibid.*

<sup>27</sup> Memorandum C. 758/1, CSO 26/41996, NAI., p. 5.

<sup>28</sup> *Ibid.*, p. 6.

remains whether, as the Director of Education argued subsequently, 'the liberty of the people can...be bought at [Haig's] figure [of three pence each].'<sup>29</sup> Since the answer has to be negative, the question arises whether the cost of making efficient team-players of unwilling settlers would not override the expected advantages at some stage. Clearly, Haig's view of human nature is faulty; nor has Nigeria's experience supported his assumption that plantations are inherently more efficient than small peasant farms.<sup>30</sup>

The other example, P. C. Hodson, Administrative Officer in The Gambia, was perhaps more orthodox in his perception of the African peasant.<sup>31</sup> As late as 1945, Hodson wrote that the African peasant could neither accumulate capital nor control excessive social spending. According to him, the peasant lacked the will power to discover the means of preserving perishable farm produce, which 'results from the cultivation of tubers rather than grain and from the absence of substantial buildings for storage.'<sup>32</sup> Indeed, peasant values constituted 'a serious drag on progress',<sup>33</sup> not least because

African peasant culture is characterised by a lack of crop surpluses, a lack of capital, minute divisions of land, and stability which, though reactionary, yields a certain degree of contentment and happiness...Lack of capital deprives the cultivator of implements and animals. It drives him into debt, a condition which he aggravates by improvident feasting and by social customs of display at marriages and funerals, further reducing his resources...The problem is to increase crop surpluses and to use that increase for capitalization, thereby displacing the human body as a commodity for investment...and offering better opportunities for thrift and for raising the standard of living.<sup>34</sup>

Shed of all technicality, Hodson's views parallel the conventional economic position on peasant agriculture. As summarised by Stevens, this was that peasants are (a) 'poor decision makers', or foolish to the extent that they have defied wider pressure for change

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<sup>29</sup> Memo D.E. 503/14 of 6 May 1940, *ibid.*

<sup>30</sup> See. e.g., Lekan Are, 'An Assessment of Some Plantation Problems in Western Nigeria', *TA*, 41, 1 (1964), pp. 1-13.

<sup>31</sup> P. C. Hodson, 'Economy of the African Peasant', *FaF*, VI, 1 (1945), pp. 52-54.

<sup>32</sup> *Ibid.*, p. 52.

<sup>33</sup> *Ibid.*

<sup>34</sup> *Ibid.*, p. 52; p. 53; cf. Faulkner and Mackie, *Agriculture*, p. 10.

through more efficient technologies; and (b) 'poor but efficient' economic actors trapped in a technical and economic equilibrium that provides little or no opportunities for profit, investment, or growth.<sup>35</sup>

Specific scholarly views have differed from the above on questions of detail. According to Schultz, who best exemplified the mainstream view up to the 1970s, neither farm size nor whether output was for sale or subsistence had anything to do with the peasant problem. On the contrary, peasants are efficient but operate in a state of static technical equilibrium which itself offers 'little opportunity for growth...because farmers have exhausted the profitable production possibilities of the state of the arts at their disposal.'<sup>36</sup> For agricultural progress to become realisable therefore, peasants must be persuaded to shift resources from subsistence to commercial production. Better still, peasants must adopt new factor combinations which emphasise capital and technology over and above land and labour in order to 'improve efficiency and increase output at no extra cost to the economy' or to peasants and their families!<sup>37</sup> For Schultz, this could be achieved through a state-led programme of incentives, covering prices, physical infrastructure and human capital development.

The Schultzian framework, and conventional opinion on the peasantry generally, have been criticised widely in the literature. Research has shown, for example, that mainstream analysis of peasant agriculture has often reified profit maximisation, ignored risk and uncertainty,<sup>38</sup> failed to grapple with the complex institutional constraints faced by peasants,<sup>39</sup> and, above all, understated substantial technical advances occasioned by

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<sup>35</sup> R. D. Stevens, 'Transformation of Traditional Agriculture: Theory and Empirical Findings', in Stevens (ed.), *Tradition and Dynamics in Small-Farm Agriculture* (Ames, 1977), pp. 3-24. The volume contains six case studies, including one on Nigeria.

<sup>36</sup> Schultz, *Transforming*, p. 131.

<sup>37</sup> W. David Hopper, 'Allocative Efficiency in a Traditional Indian Agriculture', *JFE*, 47, 3 (1965), p. 611.

<sup>38</sup> See e.g. Malcolm McPherson, 'Why do Researchers Continue to Ignore Risk in Tests of Farmer Efficiency?', *JDS*, 22, 3 (1986), pp. 604-607.

<sup>39</sup> For a Kenyan case of how inter-linked markets in land and credit undermine Schultz's view, see Jerome Wolgin, 'Resource Allocation and Risk: A Case Study of Smallholder Agriculture in Kenya', *AJAE*,



peasant experimentation in different social contexts.<sup>40</sup> For example, after reviewing the evidence in six previously published case studies, Dillon and Anderson concluded that peasants engage in 'active consideration of subjective risk and successfully endeavour to maximise expected utility rather than expected profit.'<sup>41</sup> Lipton showed how security considerations dominate farm level production decisions in India.<sup>42</sup>

Norman's study of grain farmers in northern Nigeria also suggests that peasants seek to maximize utility by minimizing risks.<sup>43</sup> Statistical estimates from Norman's data also suggest that the marginal value product for crop enterprises in three Zaria villages did not differ significantly from their opportunity costs - meaning that sole cropping did not offer significant productivity gains over and above mixed cropping.<sup>44</sup> As Norman concluded, the 'practice of growing crops in mixtures has been the outstanding example in meeting both profit-maximisation and security criteria' under indigenous conditions.<sup>45</sup> The general view, since supported by African historiography, is that small farmers are no more averse to value maximizing behaviour than say, industrialists or large commercial farmers, but that peculiar resource constraints impose different decision algorithms on poor farmers.<sup>46</sup> In other words, peasant behaviour is more context-specific than orthodox thinking allowed, and must be analyzed with an alternative or at least more flexible analytical scheme.

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57, 4 (1975). Similar processes are examined with regard to Guatemala in Thomas Schweigert, 'Penny Capitalism: Efficient But Poor or Inefficient and (Less Than) Second Best?', *WD*, 22, 5 (1994).

<sup>40</sup> See, e.g., Francesca Bray, *The Rice Economies* (Oxford, 1986).

<sup>41</sup> Dillon and Anderson, 'Allocative Efficiency', p. 31.

<sup>42</sup> Michael Lipton, 'The Theory of the Optimising Peasant', *JDS*, 4, 3 (1968), pp. 327-351.

<sup>43</sup> D. Norman, 'Rationalising Mixed Cropping under Indigenous Conditions: The Example of Northern Nigeria', *JDS*, II, 1 (1979), pp. 3-21.

<sup>44</sup> Norman, 'The Rationalisation of Intercropping', *AE*, II, 4 and III, 1 (1977), pp. 97-109.

<sup>45</sup> *Ibid.*, p. 108.

<sup>46</sup> For a synthesis of views up to the 1970s, see Hopkins, *Economic History*, chps. 2, 4 and 6. For more recent experiences, see the contributions in John Harriss (ed.), *Rural Development* (1982).

That research showed the weak empirical bases of orthodox generalisations on peasant economic behaviour is not surprising. What is surprising is that the opposing view, now known as the ecological school, did not attain prominence among researchers until recently and remained largely ignored in the design and implementation of Nigeria's IRD projects up to the 1980s. Since the turn of the century, Dudgeon had called attention to the appropriateness of peasant methods and the environmental impact on tropical conditions of imported technology.<sup>47</sup> In 1938, Dudley Stamp, one-time Geography don at the University of London toured Nigeria in his capacity as Director of Britain's Land Utilisation Survey. In an article published shortly afterwards, Stamp remarked that peasant land use practices were well-adapted to local soil profiles and made more ecological sense than observers had been willing to admit.<sup>48</sup> Stamp also raised the spectre of possible long-term damage from mechanized cultivation to southern Nigeria's fragile soils. As he wrote,

the native farmer has already evolved a scheme of farming which cannot be bettered in principle even if it can be improved in detail...[A]s practised in some areas, this scheme affords almost complete protection against soil erosion and loss of fertility... Within limits the curiously untidy, irregular patches of cropped lands, scattered about among scrubby bush, represent the most efficient type of farming for the conditions. No Western method could be safely substituted; Western science can help by improving the quality and yield of crops and by teaching the value of green manuring, *but it is hoped that Southern Nigeria may long be spared the dangers of the plow.*<sup>49</sup>

The foregoing comments were prompted by the success of local initiatives in controlling soil erosion but have wider import for agricultural development policy and analysis. For one, Stamp's views stand in sharp contrast to received wisdom on peasant capacity for resource management. Coming only five years after the publication of Faulkner and Mackie's *West African Agriculture*, Stamp's views showed that officialdom had been extremely slow in appreciating peasants' views and aspirations, highlighting the *realpolitik* of agricultural knowledge in colonial and post-colonial Nigeria.

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<sup>47</sup> G. C. Dudgeon, *The Agricultural and Forest Products of British West Africa* (2nd. ed. 1922); cf. F. R. Irvine, *A Textbook of West African Agriculture* (2nd ed., 1953), pp. 28-32.

<sup>48</sup> L. Dudley Stamp, 'Land Utilization and Soil Erosion in Nigeria', *GR*, XXVIII, I (1938), pp. 32-45.

<sup>49</sup> *Ibid.*, p. 32; pp. 38-39. Emphasis added.

For another, Stamp's concern for the long-term impact on local ecology of modern agricultural techniques transcends immediate policy pressures for increased production and productivity and calls attention to some of the social costs of mechanisation (on which see chapter 8). His argument also highlights local resource capability, thereby casting a shadow of doubt on the sustainability of large-scale agriculture. As I show shortly, similar questions were raised in official documents on the Ekiti-Akoko project.

Finally, Stamp's perceptive remarks have become the building block of a peasant-inclined analysis of agricultural development. This relatively pro-peasant view has attracted leading proponents like Paul Richards, Michael Lipton, Robert Chambers, and Martin Igbozurike, among others.<sup>50</sup> Even Goran Hyden, who in the early 1980s proposed that the full might of the market be unleashed on African peasants to break their resistance to capitalist agriculture,<sup>51</sup> was advocating an ecological position one decade later. In a contribution published in 1988, Hyden warned against the long-term implications of mono-cultural practices promoted by modern farming technology, suggesting that any feasible future agenda must take full advantage of the resilient aspects of African farming.<sup>52</sup> Norman Uphoff's criticism of top-down approaches to development shares similar premises, albeit from a wider viewpoint.<sup>53</sup> All these scholars share Faniran and Areola's position that

the knowledge and experience of the local farmers are unrivalled...in the field of crop production and the management of the soil...and no alternative system has been found that is as nicely adjusted to the prevailing environmental conditions as the one which has long

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<sup>50</sup> See, e.g., Lipton, 'Optimising Peasant'; Martin Igbozurike, 'Against Monoculture', *PG*, 23, 2 (1971), pp. 113-117; and 'Ecological Balance in Tropical Agriculture', *GR*, 61, 4 (1971), pp. 519-529; Peter E. Hildebrand (ed.), *Perspectives on Farming Systems Research and Extension* (Boulder, 1986); Robert Chambers, Arnold Pacey, and Lori Ann Thrupp (eds.), *Farmer First* (1989). Paul Richards' review article, 'Ecological Change', is clearly the most outstanding contribution in recent times to the discourse on sub-Saharan Africa. Two recent studies on Nigeria within this framework are L. C. Uzozie, 'Tradition and Change in Igbo Food-crop Production Systems: A Geographical Appraisal', Ph.D thesis, University of London (1979); and Atte, 'Resources'.

<sup>51</sup> Goran Hyden, *Beyond Ujamaa in Tanzania* (1980).

<sup>52</sup> Hyden, 'Beyond Hunger in Africa - Breaking the Spell of Mono-Culture', in Cohen, *Africa's Food Needs*, pp. 47-78.

<sup>53</sup> Norman Uphoff, 'Assisted Self-Reliance: Working With, Rather than For, the Poor', in Lewis, *et al.*, *Strengthening the Poor* (1988), pp. 47-59.

been practised by the people.<sup>54</sup>

Few scholars would deny that indigenous knowledge has been limited as much by shared traditions as by individual subjectivity.<sup>55</sup> As Faniran and Areola have shown, Yoruba peasants are wont to underestimate the full productive potential of their immediate environment, in part because the elements are part and parcel of their daily livelihood and possibilities for change become less apparent to them than they are (or could be) to outsiders.<sup>56</sup> Even fewer scholars would suggest that inherited traditions be sustained for their own sake. Hard-line anti-capitalist peasant traditions are in any case changing, albeit within the general dynamic of resource constraints of small-scale, cash and capital-poor, farming. As Ruthenberg has observed, 'innovation and change, no matter how slow, are normal features of traditional farming. Without a continuous series of small adjustments, the diverse and often well-adapted farming systems...could never have developed.'<sup>57</sup> As the next section shows with regard to the Ekiti-Akoko area, peasants' agricultural knowledge and use of productive resources need to be examined against the background of their inherited traditions and the changes occasioned by their interactions with the wider environment. The persistence of traditional practices is just as important as the *direction* of their development.

### 5.3 Distribution and Use of Farmland in Ekiti-Akoko Area

The project area shares with Ondo State generally a remarkable endowment for rain-fed agriculture.<sup>58</sup> Like his counterparts in other parts of the state and elsewhere in

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<sup>54</sup> A. Faniran and O. Areola, 'The Concept of Resources and Utilisation Among Local Communities in Western Nigeria, *AE*, II, 3 (1976), p. 40.

<sup>55</sup> Cf. H. C. Brookfield, 'On the Environment as Perceived', *Progress in Geography*, 1 (1969), pp. 53-80.

<sup>56</sup> Faniran and Areola, 'Concept of Resources', p. 47.

<sup>57</sup> Hans Ruthenberg, *Farming Systems in the Tropics* (Oxford, 1980), p. 29; cf. Atte, 'Resources', p. 392.

<sup>58</sup> Colonial intelligence reports - for example, those on Ayede and Ishan countries- made specific mention of this fact. See 'Intelligence Report on Ayede District, Ekiti Division, Ondo Province', CSO 26/31014 NAI; and 'Intelligence Report on the Ishan District, Ekiti Division, Ondo Province', CSO 26/30983 NAI.

southwestern Nigeria, the average Ekiti-Akoko farmer also operates in a predominantly land surplus and labour scarce environment, employing little more than the simple hoe and machete. Established farming practices are therefore land-intensive in the sense that virtually everything else depends on the natural productive capacity of cropped land. The individual farmer is often concerned with promoting labour efficiency or maximising returns to labour in circumstances in which virtually every able-bodied adult has guaranteed usufruct right to arable land or could obtain same at minimal cost.<sup>59</sup> To be sure, Allison's remark that fallows could last for up to 14 years in Ondo in the 1940s, and that an eight-year old fallow was 'as yet unsuitable for yams, though good enough for corn and cassava', would seem rather unusual in the 1990s.<sup>60</sup> Fallow periods have most certainly become shorter as a result of intensification arising from population increases and attendant growth in the size of villages and towns, the planting of cocoa on choice land, and expanding access to technology. But increasing population density has not yet translated to a substantial reduction in the supply of arable land. Small-scale agriculture in the project area is therefore far from being 'alienated...from its ecosystem'.<sup>61</sup> Indeed, the following remarks by Stamp still depict the socio-technical balance in the area now as they did for Southern Nigeria in 1938:

cultivation is entirely by hand, unaided by animals...village lands are cultivated by a system that is misleadingly called "shifting cultivation" but that might be better called "bush fallowing," since periods of cultivation are separated by periods of fallowing...In preparing the land for cultivation, the bush fallow is cleared, usually by burning. The stumps are not removed; hence regeneration of trees takes place naturally after the period of cultivation.<sup>62</sup>

That the foregoing practices make ecological sense has been widely debated and requires no restatement here. Their persistence however reflects the low-level technical capacity

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<sup>59</sup> G. K. Helleiner, *Peasant Agriculture, Government, and Economic Growth in Nigeria* (Homewood, 1966), p. 52.

<sup>60</sup> P. A. Allison, 'From Farm to Forest', *FaF*, 11, 2 (1941), p. 96; cf. Darryl Forde, 'The Native Economies', in Forde and R. Scott, *The Native Economies of Nigeria* (1946), p. 81.

<sup>61</sup> Igbozurike, 'Ecological Balance', p. 521.

<sup>62</sup> Stamp, 'Land Utilization', p. 34; p. 35; p. 36.

of small farmers as well as the delicate structure of soils in southern Nigeria.<sup>63</sup> As Oyenuga has remarked, 'no attempt is made to remove [tree] stumps since the tools - hoe, cutlass and axe - in the hands of the cultivator are unsuitable for the stumping of large trees or for removing difficult roots.'<sup>64</sup> While bush burning facilitates organic decomposition in the soil, 'it also destroys the seeds of weeds',<sup>65</sup> thus reducing subsequent demand on available labour supply for weeding operations. Bush fallowing is also a rational response to poorly structured soils with limited productive potential under continuous cultivation.<sup>66</sup> In an instructive passage, the World Bank's *Staff Appraisal Report* describes the soil structure in the project area as follows:

The area overlies metamorphic rocks of the basement complex consisting mainly of coarse to medium drained granites and gneiss. Most of the soils in the area, derived from these parent rocks, are relatively shallow, usually sandy (often containing marked stone/gravel layer at depths between 25cm and 100cm), well drained, weakly acid in the topsoil, and have a low base exchange capacity. Agricultural potential is only fair and the rapid decline in nutrient status, under existing farming systems, only allows productive food cropping once in 5 to 6 years. Based on a reconnaissance soil survey, about 60% is considered suitable for productive farming, of which only a very limited area is suitable for large-scale mechanized farming.<sup>67</sup>

The foregoing commentary raises questions about the possible social cost as well as the sustainability of the project itself, but that is immaterial for now. The immediate point of interest is that the SAR indirectly confirms the relative superiority of traditional methods of land use and land regeneration through fallowing. As Arabi observed,

[t]he canopy of fallow vegetation protects the soil surface from the destructive influences of raindrop impacts and the sun, thereby reducing erosion and loss of organic matter

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<sup>63</sup> For example, Faulkner and Mackie, *Agriculture*, pp. 43-44; and C. A. P. Takes, 'Problems of Rural Development in Southern Nigeria', *NISER Reprint Series No. 9*, from *Tijdschrift Van Het Koninklijk Nederlandsch Aardrijkskundig Genootschap*, LXXXI, 4 (1964).

<sup>64</sup> V. A. Oyenuga, *Agriculture in Nigeria* (Rome, 1967), p. 135.

<sup>65</sup> *Ibid.*

<sup>66</sup> K. M. Buchanan and J. C. Pugh, *Land and People in Nigeria* (1955), pp. 104-105. For a summary analysis of Nigeria's main soil types, see H. Vine, 'The Soil Resources for Increased Production', *FaF*, IX, 1 (1948), pp. 21-27.

<sup>67</sup> Cited in APMEPU, *Ekiti-Akoko Agricultural Project Completion Report*, Vol. I Main Report (Benin-City, 1986), p. 19.

through oxidation and consequent deterioration of the soils' physical and chemical properties...The roots of fallow species penetrate deep down the soil layer to retrieve the nutrient rations which are redeposited in the soil surface through a recycling process, when the leaves and above ground part of the vegetation are returned to the soil as litter.<sup>68</sup>

It is not surprising, therefore, that the man-land ratio has not changed significantly in the project area. In my survey, which is indicative rather than statistically representative, 160 respondents claimed to have 430 fields of between 0.5 ha. and 10 ha. each between them (Table 5.2). This amounts to a mean of 2.7 plots per respondent. Actual survey figures range from one to 10 plots, with 89% of respondents having 75% of all plots or between one and four plots each. The remaining 25% (or 107 fields) are shared by 18 (or 11% of all) respondents, although a mere eight (or 5% of total) respondents claimed to 'own' over half of this proportion or 13% of the total number of plots claimed by all respondents. These figures therefore confirm the view that farms are often small and fragmented among small cultivators.

Over four-fifths of all plots fall under communal tenurial arrangements and are therefore exempt from *Ìsákólè* or from other forms of rent. About 86% of this proportion, or 75% of all plots fall under 'inheritance' while an additional 12% of all plots did not attract any rent payments to landowning families or communities. Two respondents claimed to have purchased farmland, but their claims relate to five plots only or 1.2% of the total number of plots. One of the two respondents, identified as R1608 for record purposes, claims to have seven fields, four of which are inherited while three are purchased. The other, R2607, owns ten plots, the highest number by any respondent. Two of these are purchased, three are rented, and the rest are made up by a variety of communal arrangements. R2607 also owns a tractor and equipment which are available for hire either on mechanized farm operations or to transport produce from farmsteads to village.

R1608 and R2607 therefore exemplify the frontiers of modern agriculture and the potential for private property in farmland in rural Ondo State. To this extent, the two

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<sup>68</sup> R. O. Arabi, 'Cropping Practices of Farmers in the Ekiti/Akoko ADP Area, Ondo State, Nigeria', M.Sc Dissertation, Department of Agronomy, University of Ibadan, 1985, p. 28; p. 29.

respondents might well be the typical extension officer's delights. But their cases are also the exceptions that prove the rule. For example, R2406 claimed to have eight plots and rivals R1608 and R2607 with regard to the number of fields owned. Unlike the two others however, all of R2406's plots are inherited. Two-thirds of fields claimed by respondents with five or more fields (including the three mentioned above) each also fall under the inheritance category.

Fifty-five plots or 13% of the total number of plots are claimed to have been rented. Rent payments are varied and flexible. For example, R2607's rents are mixed; they range from 100 yam tubers each year for his fields at Ayede and Itaji through N100 per hectare on others to N150 per hectare on government land at Igede farm settlement. In contrast, R1608 freely determines what to pay, in cash and/or in kind, on his three rented fields. R1608 is in this regard more representative of the general practice in Ayede area. The significance of rent lies not in the value transferred from tenant to landlord. More often than not, the monetary value of rent is very low in relation to the real value of the land in the market place. The significance of rent lies in the symbolic acknowledgement by the tenant that freehold rights on the land remain vested in the landowning family, and that the tenant could only exercise such rights over his crops and *not* on the land itself.<sup>69</sup>

The above inferences from my field data are consistent with patterns suggested by state-wide surveys. As Table 5.1 shows, over four-fifths of farmland reported for the project area in Ondo State's rural economic survey for 1978 were classified under inheritance. The corresponding proportion for the entire state was lower by only two percentage points. In contrast, the proportion of farmland leased or rented in the project area stood at about 7% each, compared with about 9% and 6% respectively for the state. The proportion of farmland rented in Ekiti East is rather high at 14%, especially in relation to other LGAs. Finally, gifts amounted to 2-3% of farmland at both project area and state levels.

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<sup>69</sup> For similar comments on Okeigbo, see Robert Clarke, 'Agricultural Production in a Rural Yoruba Community', Ph.D thesis, University of London (1979), p. 251. On Ondo and Ife, see Sara Berry, 'Migrant Farmers and Land Tenure in the Nigerian Cocoa Belt', in O. Otite and C. Okali (eds.), *Readings in Nigerian Rural Society and Rural Economy* (Ibadan, 1990), pp. 90-100.



**Table 5.1**  
**Distribution of Farmland in Ekiti-Akoko Area, 1978 (by LGA and Tenure System)**

Local Government Area	Forms of tenure (%)			
	Inheritance	Lease	Rent	Gift
Akoko North	89.4	8.3	2.3	-
Akoko South	86.1	7.4	6.5	-
Ekiti Central	80.5	9.6	6.7	3.2
Ekiti East	79.6	4.5	14.1	1.8
Ekiti North	86.7	4.6	4.2	4.5
Project area	84.5	6.9	6.8	3.2
All state	82.7	9.2	5.9	2.2

Source: ODS, *Report on Rural Economic Survey 1978* (Akure, n.d.), Table 47, p. 51.

The foregoing suggests clearly that disparities in the distribution of fields between respondents are less about access to land or about land supply constraints; rather about effective demand for farmland, defined as individual capacity to put land under crops. Strictly speaking, landlessness is non-existent among respondents. Few if any member of the wider population in Ayede area would also claim to be unable to farm because of inability to obtain land for economic or any other reason. Access to farmland cannot therefore constitute a reliable indicator of social differentiation among respondents.

A more useful indicator is cropped acreage per respondent. Information on farm size from my survey is too sketchy to bear statistical analysis, but state-wide data suggest that average holdings are small. In 1978, cropped averages ranged from 0.22 ha. for maize through 0.27 ha. for yam to 0.43 ha. for rice and 0.54 ha. for melon.<sup>70</sup> In contrast, tree crop farms averaged 0.78 ha. for cocoa and 0.74 ha. for kolanuts.<sup>71</sup> Small holdings often mean that the individual's farms are far apart, adding to the demands on available labour. Beyond a hypothetical point therefore, the labour requirements of extensive cultivation must exceed the supply capacity of the average farming family. The farmer who crops so many fields, and perhaps on a large scale, is therefore likely to depend on wage labour or on sharecropping.

<sup>70</sup> ODS, *Report on Rural Economic Survey, 1978* (Akure, n.d.), Table 39, p. 43.

<sup>71</sup> *Ibid.*, Table 40, p. 44.

However, sharecropping has been associated more with tree-crop farming than with food production. In recent times, women who have been engaged to harvest cassava farms and to process the tubers to *gaari* have often taken a share of the finished product. However, such women are hardly ever involved in the production process until the final stages and cannot be regarded as sharecroppers in the conventional sense of the term. The appeal of sharecropping at the final stages of cassava production may therefore reflect the sharp contrast between 'the costliness of manioc processing [and] the cheapness of planting and growing...'<sup>72</sup> Sharecropping may also reflect low expectations or generalised uncertainty about the net benefit of employing wage labour to process *gaari*, especially in a rural setting with low functional or product specialisation.

A useful proxy for cropped acreage in the circumstances is the cultivation ratio, obtained by expressing the number of cultivated fields as a percentage of the number of fields owned by respondents. As Table 5.2 shows, the cultivation ratio for all respondents is about 91%. The implied high turnover of uncropped land could be interpreted variously - as an indication that man-land ratios are still high, that so much land is under fallow, or of labour scarcity if all the plots were intended for cultivation. The last interpretation is specifically supported by high cultivation ratios at both ends of the spectrum.

**Table 5.2**  
**Respondents' Cultivation Ratio, 1992**

(1) N <sup>o</sup> of fields per respondent	(2) Total N <sup>o</sup> of fields 'owned'	(3) Total N <sup>o</sup> of fields cropped	(4) Cultivation ratio (3 ÷ 2 × 100)%
1	29	29	100.0
2	118	128	108.5
3	96	90	93.8
4	80	76	95.0
5	50	35	70.0
6	18	6	33.3
7	21	7	33.3
8	8	8	100.0
10	10	10	100.0
Total	430	389	90.5

Source: Author's field survey, November 1991-June 1992.

<sup>72</sup> William Jones, *Manioc in Africa* (Stanford, 1959), p. 283.

Respondents with up to two fields as well as respondents with eight fields and above cultivated all their farmland. The 108.5% ratio for respondents with two fields is unusual in this regard, but it could be attributed to respondents from other groups who cultivated only two of their fields. Beyond two fields per respondent, the cultivation ratio declines, at first moving haphazardly until five fields per respondent, after which it plummets to only 33%. If it is assumed that respondents with fewer fields are also likely to have smaller farms, and that every respondent wishes to crop as many fields as it is practicable,<sup>73</sup> it would follow that respondents with the lowest cultivation rate (or middle peasants, for convenience) typify the *threshold* between family-based, semi-commercial agriculture to full-fledged, market-oriented, food production.

The cultivation rate would then change from being a mere arithmetical measure to a rough indicator of the demand and supply of labour, mechanical implements and other capital inputs among respondents. To prepare and/or cultivate the land for example, the smaller farmer could always rely on family labour or on peak season co-operative labour arrangements. Larger farmers, such as the two survey respondents with eight and ten fields each, would normally retain migrant workers seasonally, procure wage labour as the need arises, or employ mechanical equipment to prepare their land. In trying to straddle both positions, the middle peasant faces more or less intensive competition and higher costs. For example, the middle peasant most certainly competes with the smaller farmer for the labour of teenage youths (often the smaller farmer's offspring) and with larger farmers whose operations could absorb seasonally high wages for migrant labour.

Smaller farmers also need traditional co-operative labour arrangements more than middle peasants. The agreements, known variously in Yoruba as *òwẹ̀*, *aaro*, or *ẹ̀bẹ̀ṣẹ̀*, have provided collective labour during the peak season to agnatic kin, members of peer groups or socially significant elders or chiefs. The usual objective, however, has been to enable beneficiaries meet their consumption needs and/or status-related entertainment expenditure rather than help willing individuals expand production for the market.<sup>74</sup> The groups have

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<sup>73</sup> Since access to farmland is free, and since speculation in land is still largely unknown, there is no real need for farmers or anybody else to claim ownership of a field except with the intent to cultivate it.

<sup>74</sup> G. J. A. Ojo, 'The Changing Patterns of Traditional Group Farming in Ekiti, North Eastern Yoruba

almost always disbanded immediately after the peak season pressure on labour has subsided. At present, cooperative labour groups are little more than occasional expressions of peer solidarity, a direct result of pressure from the expanding cash economy and increasing availability of wage labour.<sup>75</sup> In effect, the low cultivation rate among respondents with five and seven fields each may have resulted from labour supply constraints or from low effective demand for wage labour at the going rates by aspirant middle peasants whereas richer respondents can afford to hire labour to cultivate all their fields.

#### **5.4 Crop and Farm Management**

This section describes in some detail the cropping patterns, farm management techniques, and ecological skills in the Ekiti-Akoko area. The factor requirements of the major food crops in the area are analyzed, as are incipient attempts at crop specialisation with respect to rice. Peasant practices, it is shown, remain basically traditional but are being diluted by increasing pressure for commercial production.

Crop production follows broad vegetational distinctions between the high to moderate forest zone in the south and the derived/guinea savanna vegetation north of the project area. The south and central parts of the area, comprising Ekiti Central, Ekiti East and parts of Akoko South LGAs, lie in the forest area and are notable for 'cash' or export crops, especially cocoa, but also including coffee, kolanut, and oil palm as well as tubers and roots. In turn, farmers in the drier northern parts of the project area, mainly in Akoko North and Ekiti North LGAs, produce staple food items like yams, cassava, cocoyam, and corn (maize). The intensity with which particular crops are grown however differs between the areas, or even between villages in an area. Some farmers in fact straddle the food crop-cash crop divide, sometimes without due regard for agro-ecological and economic factors.

A survey of cropping practices conducted in the Ekiti-Akoko area by Arabi provides

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Country', *NGJ*, 6, 1 (1963). Cf. Atte, 'Resources', pp. 231-233.

<sup>75</sup> Ojo, 'Changing', pp. 36-37.

information on the major crops grown in the area.<sup>76</sup> The survey (hereafter the Arabi survey) suggests among other things, that 87% of respondents (n=60) cultivate maize, 75% grow cassava, while 65% grow yams, 22% cocoyam, and 8% rice (Table 5.3).<sup>77</sup> The survey also provides information on respondents' preferred crop mixtures. As Table 5.3 shows, one-third of all respondents grew a mixture of yams, maize, cassava, and cocoyam while about one-fifth each preferred yam/maize/cassava and maize/cassava. Others expressed preference for yam/cocoyam/maize/cassava (10%), yam/cassava/cocoyam (8%) and yam/maize/vegetables (7%).

**Table 5.3**  
**Farmers' Food-Crop Preferences in Ekiti-Akoko Area, 1985**

No.	Crops preferred	Frequency (%) <sup>a</sup>
1.	Yam/maize/cassava/cocoyam	33.0
2.	Yam/maize/cassava	23.0
3.	Maize/cassava	19.0
4.	Yam/cocoyam/maize/cassava	10.0
5.	Yam/cassava/cocoyam	8.0
6.	Yam/maize/vegetables	7.0
Total		100.0

Note: <sup>a</sup> 'N' not available, but responses are multiple and overlapping.  
Source: Arabi Survey, Table 4, p. 45.

Much the same conclusions can be drawn from my own survey, even though it covered food as well as cash crops and also emphasised farmers' crop preferences according to the size of land under each crop. For example, 42% of all respondents (n=163) claimed that yams was their first crop, that is the crop to which the largest proportion of their cultivated land was devoted in 1990/91. About 20% of all respondents made similar claims for maize, while 11-14% said they had more land under cocoa and cassava. Maize topped the list of second crops with about 31% of all responses (n=159), trailed by cassava (30%) and yams (24%). For the third crop, about 40% of respondents (n=147) claimed they grow cassava, maize (19%) and yams (17%). Cocoyam features as the most-widely grown fourth crop with 23% of responses for that crop. It is followed in that

<sup>76</sup> Arabi, 'Cropping', p. 28, p. 29.

<sup>77</sup> *Ibid.*, p. 26.

group by yams (19%) and cassava (16.3%).

Table 5.4 expresses the foregoing as respondents' enterprise combinations and suggests three important points. The first is that over two-thirds of all respondents grow at least three main crops while up to one-third grows four crops. Second, cocoa appeared once in combinations for the first four crops and only once again, with kolanut, in the combinations for the fifth crop. This suggests clearly that most respondents are overwhelmingly food farmers. In six seasons to 1975/76, for example, the project area accounted for 19-25% of Ondo State's annual cocoa crop, or for 21.4% each season. About half (or 33-77%) of this proportion came from Akoko area, well outside my survey area.<sup>78</sup> Finally, it could be deduced from Table 5.4 that yams feature in 80% of respondents' crop preferences while cassava and maize recurred in 74% and 66% of all responses respectively.

**Table 5.4**  
**Respondents' Enterprise Preferences, 1992**

No.	Crops preferred	N <sup>1</sup>	% of respondents in group	% of all respondents
1.	Yam/maize/cocoa/cassava	163	86.0	86.0
2.	Maize/cassava/yams	159	84.3	82.2
3.	Cassava/maize/yams	147	75.5	68.1
4.	Cocoyam/yams/cassava	92	57.6	32.5
5.	Cocoyam/yams/kolanut/cowpea/cocoa	43	60.5	14.1
6.	Cocoyam/kolanut/cassava/plantain/cashew	22	72.7	9.8

Note: <sup>1</sup>Multiple responses.

Source: Author's field survey, November 1991-June 1992.

Together, both surveys suggest that the average Ekiti-Akoko farmer cultivates yams, cassava, and maize, probably in that order, while cocoyam and vegetables appear to be grown less extensively. It is also probable that agricultural production in the project area is geared more towards roots and tubers than to grains. The conclusions of both surveys are consistent with those in the existing literature. In the 1950s, according to the Galletti survey, yam constituted the single 'largest element of food production both in volume and

<sup>78</sup> Computed from ODS, *Digest of Agricultural Statistics, 1976* (Akure, n.d.), Table 16, p. 18.

in value' for 187 Yoruba cocoa families.<sup>79</sup> In 1986/87, 83% of 1,169 food farms covered by Ondo State's crop reporting survey were planted with roots and tubers while 17% were under maize. About four-fifths of farms in the former group, or over half of all farms surveyed, were divided almost equally between yam and cassava, leaving less than one-fifth (16%, or one-tenth of the total) for cocoyam. Yam also provided 37% of the tubers output from the sample population.<sup>80</sup> At the national level, yam accounted for over 35% by value and tonnage of all food crops produced locally in 1963. Corresponding figures for cassava are 22% and 9% respectively.<sup>81</sup> In two decades to 1990, yam accounted for 24-40% by volume of Nigeria's annual output of staple food items, though its share declined in the 1980s.<sup>82</sup> Even so, yam remains a major element of internal commerce in Nigeria.

Yams are usually planted in November or early December, though some farmers plant as early as September or October. A late planting also takes place in February or March, offering farmers an opportunity to expand their farm sizes generally or prepare more yam fields without the peak season labour supply constraints associated with the last quarter of the calendar year. It has been established, however, that yams planted in the first of the two seasons give better results. According to Irvine, the Nigerian Department of Agriculture 'tried planting yams in both seasons and obtained best results and heavier yields from the...method of planting in November or December.'<sup>83</sup> As Faulkner and Mackie have also remarked, 'yams planted in the earlier period yield better than those planted in March...[E]ven when the beetle is prevalent...late planting reduces the yield more than the beetle does.'<sup>84</sup> It is also widely accepted that yams planted between the two periods often fail to sprout, let alone produce good yields.

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<sup>79</sup> R. Galletti, K. D. S. Baldwin and I. O. Dina, *Nigerian Cocoa Farmers* (1956), p. 418.

<sup>80</sup> ODS, *Report of Agricultural Crop Reporting Survey 1986/87* (Akure, n.d), Section 3, p. 1.

<sup>81</sup> Oyenuga, *Agriculture*, p. 7.

<sup>82</sup> Computed from CBN, *Statistical Bulletin*, 1, 1&2 (1990), Table C.1.2, p. 78.

<sup>83</sup> F. R. Irvine, *A Textbook of West African Agriculture* (2nd ed., 1953), p. 123.

<sup>84</sup> Faulkner and Mackie, *Agriculture*, p. 147.

Empirical support for these positions is well documented. In Kwara State, for example, Atte's survey evidence indicate that Kabba farmers prefer early planting of yams because they wish to maintain their environmentally-induced work schedule as well as take advantage of early rains. They also fear that yams could decay or cannot be cut into setts once they become 'pregnant' or develop sprouts after October. Before then, there is normally a stock of good tubers from which setts could be made without putting pressure on food supply for the family; farmers are not therefore tempted to reduce the new year's crops.<sup>85</sup>

Brown has also observed that farmers plant yams early in order to avoid possible 'damage by the heat of the sun...during the hotter months of the year...'<sup>86</sup> In Irvine's words, 'the farmer prefers to plant in the morning...he insists that the rays of the sun are not good for the sets which should be planted in a cool seed-bed or hill.'<sup>87</sup> Yam seed-beds are usually cooled by mulching, the practice by which yam setts are protected by 'a "cap" consisting of dry grass or similar material which is finally kept in place by a small quantity of soil or a large stone...'<sup>88</sup> Experiments conducted by Nigeria's Agricultural Department in the 1920s suggest that yield differentials between capped and uncapped yam heaps could be as high as 100%.<sup>89</sup> In the Ekiti-Akoko area, most farmers use the late planting opportunity to replace seeds which have not germinated either because they had few buds or too many 'blanks' in them, or because the setts had been destroyed by rodents or by excessive heat. The checking and replacing of bad setts is often undertaken piecemeal or alongside the weeding and hoeing of yam plots.

Yoruba farmers plant their yams setts (*Àlàgbẹ̀*, or '[yam] sliced for planting') on heaps. *Àlàgbẹ̀* could be obtained from the top, middle, or bottom of whole yams. The criteria of choice often include the size of a tuber as well as possible sprouting points between

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<sup>85</sup> Atte, 'Resources', Table 5.10, p. 198.

<sup>86</sup> D. H. Brown, 'The Cultivation of Yams', *TA*, VIII, 8 (1931), p. 203.

<sup>87</sup> Irvine, *Textbook*, p. 122.

<sup>88</sup> Brown, 'Cultivation', p. 203.

<sup>89</sup> Irvine, *Textbook*, p. 124.



its various parts. Whole seed yams are also obtained from what may be called second generation tubers from yam plants which have been harvested early either because the yam varieties concerned mature faster or because of deliberate action.<sup>90</sup> Farmers often harvest their yam crops early (where possible) to generate whole seed yams which generally produce heavier yields than tops. Seeds made from middles and bottoms are, according to Irvine, less reliable and may not sprout at all.<sup>91</sup>

On *Àkùrò* or *fadama* fields or on other plots with heavy soil, heaps could be 1-2 feet high and 3-4 feet apart.<sup>92</sup> Depending on soil type as well as on the individual farmer's choice regarding the size and quality of heaps, a hectare could comprise between 3,000 and 8,000 heaps, according to Atte's data.<sup>93</sup> In traditional Yoruba society, farm size is measured in multiples of 200 or *igba*. Two thousand heaps thus amount to *ẹgbẹwá*, *ẹgbàá*, or *igba mệwa* (i.e. 10 units of 200 heaps each). If, as Jeffreys reckoned in 1947, '1½ "egba" is approximately equal to one acre', one hectare would average 7,400 heaps.<sup>94</sup> At present official estimates of farm size in Ondo State assume an average of 3,000 heaps per hectare, which incidentally is Atte's actual figure for *Àkùrò* farms in Kabba. This might mean that heaps are generally bigger in Ondo State than in Kabba, or alternatively that Kabba farmers try to make more heaps per hectare because arable land is more scarce in relation to Ondo State. The divergent figures however point to the lack of standardisation in traditional measurements.

In making heaps, farmers turn the soil over without necessarily removing the top and most nutritious layers. Since in Stamp's words 'the centre of the hill (or mound) of one year becomes the intervening hollow of the next...the soil of the hill is naturally well

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<sup>90</sup> Paul Richards, *Indigenous Agricultural Revolution* (1985), p. 109.

<sup>91</sup> *Ibid.*, p. 122.

<sup>92</sup> Brown, 'Cultivation', p. 202; Oyenuga, *Agriculture*, p. 164.

<sup>93</sup> Atte, 'Resources', p. 321.

<sup>94</sup> M. D. W. Jeffreys, 'Average Size of a Native Hoe Farm in Nigeria', *FaF*, VIII, 1 (1947), p. 33.

drained and the irregular hollows between form efficient drainage channels'.<sup>95</sup> The heap itself also amounts to an artificial depth of soil which 'in some measure compensates for the non-employment of manure.'<sup>96</sup> With appropriate mulching (or capping with weeded plants), the depth of soil helps to retain moisture for plant use<sup>97</sup> and ensures that 'the developing tuber is not checked by the growing tip of the root coming against hard soil.'<sup>98</sup>

Farmers also train growing yam vines to twine around and climb stakes made of dry corn stems or of sticks obtained for the purpose from neighbouring bush.<sup>99</sup> Four or six stakes are usually tied together to form a shade which helps to maintain soil moisture by protecting the hills from direct sunshine and also 'enables the twining vines to withstand storms and rain.'<sup>100</sup> Subject therefore to adequate rainfall and proper tending (i.e. weeding, hoeing, etc.) by the farmer, bigger heaps facilitate multiple cropping by providing space at the base of the heap (*Eṣẹ-ebẹ*) for interplanted crops and tend to induce better yam harvests.<sup>101</sup> As Faulkner and Mackie have observed, 'yam responds more than most crops to deep and thorough cultivation of the soil before planting'; hence considerable resources are devoted to preparing land for the yam crop.<sup>102</sup>

Yam is often intercropped with maize as well as cassava and with a variety of subsidiary crops like pepper, vegetables, tomatoes, cowpea, and pumpkin. Maize and cassava are however the most important on account of their consumption value as well as exchange value. In theory, maize is drought-resistant and could 'enter a dormant state when soil

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<sup>95</sup> Stamp, 'Land Utilisation', p. 38.

<sup>96</sup> Dudgeon, *Forest Products*, p. 95.

<sup>97</sup> Faulkner, 'Experiments', p. 177.

<sup>98</sup> Oyenuga, *Agriculture*, p. 165.

<sup>99</sup> Brown, 'Cultivation', p. 202.

<sup>100</sup> Oyenuga, *Agriculture*, p. 165.

<sup>101</sup> Kabba farmers are broadly representative of Yorubas generally in their perception of the benefits of heaping. For details, see Atte, 'Resources', pp. 187-191.

<sup>102</sup> *Agriculture*, p. 148.

moisture is unavailable and then [resume] growth when the supply of water in the soil is replenished.<sup>103</sup> In fact, maize is cultivated throughout the year only on *fadama* land. Given the strictly limited supply of *fadama* land, most small farmers plant maize twice each year. The early crop is planted in February/March and harvested about June while the late crop is planted in August and harvested in September or October. This pattern accords with Allison's description of maize planting in Ondo villages.<sup>104</sup>

Maize farms can be sole or mixed. In the Ekiti-Akoko area, as in other parts of Ondo State, small farmers usually plant maize, especially early maize, on sole plots although each plot is often small. In 1977, for example, an estimated 38,100 ha. of maize was cultivated by 178,510 farmers in Ondo State, that is about 0.2 ha. (0.5 acres) per farmer.<sup>105</sup> About 45% of the total cropped area was however classified as single crop plots. Some 10,000 ha., or 27% of the estimated total maize hectarage was based in what became the Ekiti-Akoko area in that year. Two-thirds of these were sole plots while only one-third was mixed. The share of sole plots also varied widely between LGAs in the project area, from about 51% of the total in each of Akoko North and Akoko South LGAs to about 86% of the total in each of the three Ekiti LGAs that comprise the project area. In 1978, 71% of the estimated land cropped with maize in the state was classified as sole; the corresponding figure for the Ekiti-Akoko area was 60%.<sup>106</sup>

The pervasiveness of sole maize plots suggested above is contrary to the general preference for mixed cropping among Ondo State's small farmers. This seeming divergence from tradition is doubly significant for maize, a crop which, according to Johnston, depletes soil nutrients quickly and engenders leaching and erosion when its spacing requirements in sole stands are met.<sup>107</sup> The African farmer's single remedy to these negative attributes of the maize crop, Johnston suggests, is mixed cropping; yet,

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<sup>103</sup> Bruce F. Johnston, *The Staple Food Economies of Western Tropical Africa* (Stanford, 1958), p. 99.

<sup>104</sup> Allison, 'Farm to Forest', p. 96.

<sup>105</sup> Computed from ODS, *Rural Survey 1978*, Table 33, pp. 35-36.

<sup>106</sup> *Ibid.*, Table 34, pp. 37-38.

<sup>107</sup> Johnston, *Staple Food*, p. 101.

the above data suggest that Ondo State's farmers may have ignored this very solution! In fact however, sole maize cropping is another exception that proves the rule. Although maize's marginal labour requirements are relatively low, its cultivation on sole plots enables farmers to take advantage of seasonal weather changes by seeking to increase the marginal returns to labour, or at least ensure that the marginal cost of establishing an additional field is lower than or equal to the opportunity costs of deploying available labour on other farm chores. For the smaller farmer this means a rare opportunity to expand potential food output and ensure food security at minimum cost in labour and time.

For example, the early maize crop is planted just after the first rains, when much unoccupied but previously cultivated or fallowing land is free of bush or even shrubs on account of fires made to burn bush clearings, or wild bushfires. Sometime the heat wave of the dry season also leaves fallow land without much shrub-growths. In such cases, maize can be planted after unburnt weeds and new shrub-growth have been duly cutlashed. Maize seeds are placed three or four in a hole which could be 2-4 cm. deep and 25-30 cm. apart. The holes are made with sticks, cutlasses, or some other tool and are usually spaced unevenly. A second possible reason why sole maize farms are popular among small farmers might well be its growth cycle. Since maize matures in about twelve weeks, the early crop is often ready for consumption by June or July. Early maize thus helps to meet the consumption needs of many farming families during the 'starvation' period before new yams are due for harvest from July/August. In those few weeks or perhaps months of the year, maize becomes a staple food eaten fresh on the cob or in the form of flour, meal, and starch.<sup>108</sup>

In any case, sole maize cultivation is intertwined with 'relay intercropping', the practice of planting a second crop on a plot 'after the first crop has reached its reproductive stage of growth but before it is ready for harvest.'<sup>109</sup> Prior to June when the early maize crop matures, cover crops like cowpea or melon are often added to help check the growth of

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<sup>108</sup> Galletti, Baldwin, and Dina, *Cocoa Farmers*, pp. 234-235.

<sup>109</sup> Arabi, 'Cropping', p. 6.

weeds. Other crops like cocoyam, okro, as well as vegetables may also be added. At harvest in June, the farmer may decide to plant another maize crop in August.

Maize is however often cultivated as a mixed or succession crop on yam plots. To add yam sets to an existing maize plot, the size of the mounds has to be increased substantially before the rains stop in July or August. Farmers also prepare and cultivate their plots as is customary for yams and plant maize seeds during or immediately after yams have been planted. Either way, the maize stems are retained for subsequent use as stakes for young yam vines to twine around and climb, as noted above; otherwise stakes must be obtained by some other arrangement. Maize is also intercropped with cassava, a tuber that offers substantial economies on farm labour. When intercropped with maize, the farmer may or may not create additional soil depth for the cassava crop. Cassava also does well without hoeing or weeding and could be abandoned once the maize crop has been harvested. To quote Faulkner and Mackie again, 'cassava is always the last crop before cultivated land is allowed to revert to bush condition, and the crop is often not weeded at all.'<sup>110</sup>

Rice, Nigeria's most prominent and most discussed crop since the oil windfall of the 1970s, is also cultivated widely in the Ekiti-Akoko area. It is however not represented in Table 5.3 and Table 5.4 partly because of the biases of the Arabi survey as well as my own survey<sup>111</sup> and also because rice production has become relatively specialised and localised, as shown below. Two varieties of rice, swamp and upland rice, are cultivated albeit unevenly in different parts of Ondo State. According to Oyenuga, swamp rice does well in flooded conditions, such as those that obtain in mangrove swamp belt, or under artificial flooding from irrigation. Swamp rice can also be cultivated by raising swamp rice plants in 'small flooded nursery plots' and then transplanting them after 4-6 weeks. In the field they are planted 2-3 inches deep and spaced 10 x 10 inches or at best 12 x

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<sup>110</sup> *Agriculture*, p. 149; cf. Allison, 'Farm to Forest', p. 96.

<sup>111</sup> For example, the size and representativeness of respondents, the mode of their selection, etc. This however applies more to the Arabi survey, which covers the project area, than to my own survey of four villages in northeastern Ondo State, where rice cultivation has traditionally been low.

12 inches.<sup>112</sup> In contrast, upland rice requires less intricate techniques and attention at least up to the planting stage. Unlike swamp rice, upland rice can be sown directly in the field without the additional costs in labour and time of nursery and seed-bed preparation as well as transplanting.<sup>113</sup> Upland rice is therefore more widely grown in Ondo State as in other parts of southern Nigeria, partly because of climatic considerations, and partly because it offers substantial labour economies over and above swamp rice.

Like maize, rice is often grown twice in a year. The early crop is planted in April or May and harvested in August or September while the late crop is planted in August and harvested in December or January. Upland rice is also similar to maize or to other grains in that it could be broadcast on uncultivated land once all weeds and undergrowths have been burnt or otherwise removed. Beyond these initial economies however, rice is on balance more labour intensive than most grains or tubers cultivated in the project area. For example, rice plots *must* be weeded at least twice. The first must be undertaken very early to 'enable the field to be free of all sorts of adventitious vegetation, thus reducing the volume of work involved later.'<sup>114</sup> 'Adventitious vegetation' often includes regrowth from the roots of weeds that had not been burnt or otherwise turned over with the soil through the normal process of cultivation. Rice farms are particularly susceptible to such vegetation because they are not usually cultivated.

The second weeding is necessary to ensure that rice plants do not face severe competition for space, light and nutrients with weeds and tall(er) grass. Such competition could mean that rice plants are prevented from flowering because of insufficient access to solar energy. Apart from keeping the rice fields clean, the second weeding also helps to deter rodents, especially grasscutters, from taking up residence on the plot. Where this is the case, weeding makes it easier for farmers to trace and set up baits on rodents' paths. Baiting rabbits and other rodents is a familiar art among Yoruba farmers. But baits placed on rice fields need to be checked regularly and moved around to cover the entire farm

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<sup>112</sup> Oyenuga, *Agriculture*, p. 191.

<sup>113</sup> *Ibid.*

<sup>114</sup> *Ibid.*

or to keep up with changes in rodents' paths or presumed locations. For rice farmers therefore, baiting and weeding are necessary and demanding tasks.

Herbicides can of course be used on large farms where hand weeding is uneconomic, but the supply of chemicals in the rural areas is often erratic and their prices beyond the reach of the small farmer. In the 1950s, as Galletti, Baldwin and Dina have remarked, a large number of farmers depended on family labour, or mutual aid groups to weed their rice fields.<sup>115</sup> As noted shortly, however, mutual labour groups have declined because of increasing purchasing power and expanding wage labour. Unlike weeding, rice harvesting is a more arduous and labour-intensive task that has pushed the frontiers of rice production more into the commercial realm. In major rice-producing communities in the project area, wage labour or some form of share-cropping has become widespread since the 1970s.

One result of the above processes has been to make rice production a specialised activity vis-a-vis major food crops in the project area and elsewhere in Ondo State. Rice farming is so labour-intensive that it seems more difficult and less profitable to combine rice with other crops in the same way as yams are routinely combined with maize or yams and cassava are cultivated by the same small farmer. Hence rice is often cultivated more for exchange than for own consumption. For example, a small farmer at Imojo told me in 1992 that he sold his entire 1991 rice crop, presumably at a good price, and was buying rice thereafter to meet his family's consumption needs. This single case cannot support general deductions on the extent to which small farmers in the Ekiti-Akoko area rely on the market for their consumption needs, but it does support the view that rice is a higher-value crop vis-a-vis roots and tubers. Although the availability of imported rice has depressed local supply capacity over the years, the price of imported varieties and problems with their distribution have meant that available supply is cornered by urban wage earners, including civil servants and the elite generally. In contrast, local rice is more readily available at the local level at prices that are affordable to local farmers and to the poor. Small scale rice farming has therefore remained attractive enough.

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<sup>115</sup> Galletti, Baldwin, and Dina, *Cocoa Farmers*, pp. 181-182.

Rice farming is also more deeply incorporated in the formal economy than say yams or cassava. In 1976, rice alone accounted for 79% of a total of N299,500 credit disbursed by the Ondo State Agricultural Credit Corporation (OSACC).<sup>116</sup> In 1977 and 1978, the share of credit to rice farming declined to 45% and 38% respectively; however total credit disbursement by the corporation increased to a record N5.22 million in 1977 and declined to only N2.86 million in 1978. Moreover OSACC extended credit to a greater range of crops and agro-allied activities (e.g poultry and feed mills) in the latter years. Even then rice still accounted for a relatively high 44% of OSACC's credit disbursement for the 1976-78 period.<sup>117</sup> Given the small farmer's structural disadvantage in the distribution of formal credit and, by implication, in the capacity to exploit economies of scale in rice cultivation, it seems that the marginal returns on a small consumption rice farm would be below the average for rice farmers generally. It is also reasonable to surmise that the smaller farmer might be better off economically if he grew more yams and maize rather than rice *or* otherwise expanded his rice farm to a point at which he could profitably sell the rice crop and use the proceeds to buy food in the market.

Rice is also less amenable to multiple cropping and is often cultivated on sole plots. While some farmers do grow maize on rice plots, such maize plants are often scattered rather than planted systematically among rice plants. In 1977, 97% of an estimated 24,655 hectares of rice cultivated in Ondo State were classified as sole while only 3% was mixed. All of Ekiti-Akoko area's 43% share of the state's total rice hectareage was classified as sole.<sup>118</sup> In 1978, sole plots accounted for 91% of estimated total rice hectareage in the state; the ratio in Ekiti-Akoko area was just below the state's at 89.6%.<sup>119</sup> In short, mixed rice plots are rare; when they are cultivated, the objective is often to provide a consumption crop on plots motivated by farmers' desire to enter or

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<sup>116</sup> Computed from OSACC's figures in Adeniyi Osuntogun and Olufemi Oludimu, 'Extending Agricultural Credit through Public Institutions in Nigeria: A Comparative Study of the Ondo State Agricultural Credit Corporation and the Ogun State Agricultural Development Corporation', *OAS*, X (1981), Table 1, p. 90.

<sup>117</sup> *Ibid.*

<sup>118</sup> Computed from ODS, *Rural Survey 1978*, pp. 35-36.

<sup>119</sup> *Ibid.*, Table 34, pp. 37-38.



otherwise consolidate their position in the market for locally produced food. In this respect, rice farming in Ondo State differs from the Sierra Leonean practice as reported by Paul Richards.<sup>120</sup> As in Ondo State, maize is an 'especially...valuable hunger breaker' among Sierra Leone's rice farming families.<sup>121</sup> Unlike in Ondo State however, maize is mixed systematically on rice fields as are guinea corn, millet, and beniseed. Richards observes however that 'intercrops such as egusi and beniseed [are] grown partly or largely for cash...'<sup>122</sup>

Rice cultivation in Ondo State is localised vis-a-vis other major food crops. In 1978, only an estimated 16.5% of farming households in Ondo State (n=396,945) had rice farms while three-quarters of all farming families cultivated yams and just under half grew maize.<sup>123</sup> Some 85% of rice growing families were however based in six LGAs in Ekiti area which also accounted for over 80% of estimated rice hectarage in Ondo State in 1977 and again in 1978.<sup>124</sup> Three of the six LGAs with large numbers of rice growing families are in the project area and accounted for 55% of rice growing families in the six LGAs. In contrast, all six LGAs accounted for only half of the number of estimated farming families with maize and yam farms. The cultivation of yams and of maize are therefore widely distributed while rice production is associated with particular communities within and outside the project area. Major rice growing communities outside the project area include Ijero, Ido, Erio, Aramoko, and Effon Alaye; within the project area, Igbemo and adjoining villages in Ekiti Central LGA and Ayedun in Ekiti North LGA are the most remarkable.

Of all rice-growing communities in the project area, Igbemo (in Ekiti Central LGA) is clearly predominant. If anything, Igbemo attracts more migrant workers than any rice-producing community during the summer harvest season. Migrant workers come from

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<sup>120</sup> Paul Richards, *Coping with Hunger* (1986).

<sup>121</sup> *Ibid.*, p. 118.

<sup>122</sup> *Ibid.*, p. 119.

<sup>123</sup> *Rural Survey 1978*, Table 12, p. 12.

<sup>124</sup> *Ibid.*, Table 33, pp. 35-36 and Table 34, pp. 37-38.

far and near, and usually include in their ranks local secondary school students eager to make some money over their the long summer vacation and otherwise unemployed female petty traders as well as those employed in the informal sector. Migrants also come from southeastern Nigeria and the Benue-Plateau region of the country, areas traditionally noted for producing large numbers of migrant agricultural workers in southwestern Nigeria. It is impossible in the absence of a data base to make precise statements about the magnitude of labour migration into Igbemo for the annual rice harvest. It seems reasonable to suggest however, that up to four-fifths of labour employed at the peak of the annual rice harvest originate from outside Igbemo and its adjoining villages.

The size of rice-related activity in Igbemo is also reflected by Ekiti Central LGA's position in relevant economic statistics. In 1977, Ekiti Central LGA accounted for 46% of rice-growing households in the project area (n=26,813).<sup>125</sup> One year later in 1978, its share amounted to about 36% of estimated rice-growing households in the project area (n=32,475).<sup>126</sup> The relative decline in Ekiti Central LGA's position is however due less to absolute decreases within the LGA (estimated at 6%) than to large increases in other LGAs, for example in Ekiti North where an estimated 46% increase was reported and from expanded counting in Akoko North and South LGAs.<sup>127</sup>

The distribution by local government of OSACC's credit operations suggests much the same point. In 1980, Ekiti Central LGA accounted for 32% of N1,327,700 (i.e. N554,200 for production and N773,500.00 for marketing) worth of OSACC credit for the rice crop in the state. One year later, in 1981, the same LGA accounted for 56% by value of loans approved to applicants from what became the project area.<sup>128</sup> Rice production seems therefore to have the leading edge in the increasing commercial orientation and formalisation of small-scale food production in the Ekiti-Akoko area. Paradoxically, rice farming has also reinforced the value of local knowledge and local

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<sup>125</sup> *Ibid.*, Table 14, pp. 14-15.

<sup>126</sup> *Ibid.*, Table 15, pp. 16-17.

<sup>127</sup> *Ibid.*

<sup>128</sup> Francis S. Idachaba, *Rural Infrastructures in Nigeria* (Ibadan, 1985), Table 492, pp. 697-698.

experimentation in pest control methods and strategies.

## 5.5 Environmental Hazards

The peasant's knowledge of environmental and ecological issues, including pests, soil erosion, and climatic changes is widely remarked in the literature, more so in the absence of written records or other modern methods of information storage and retrieval. Atte has shown how local proverbs, puzzles, games, rules and norms are but structured expressions of the 'knowledge system' that sustains local agricultural practices in Kabba.<sup>129</sup> The same is true of other Yoruba groups as well as the Igbo people of eastern Nigeria.<sup>130</sup>

Barker, Oguntoyinbo and Richards have also examined peasant perceptions of and strategies for coping with environmental difficulties in Ikale in southeastern Ondo State.<sup>131</sup> Their study suggests, among other things, that Ikale farmers possess substantial understanding of the biological attributes and growth cycles of the insects and pests in their domain, the timing and intensity of their attacks on crops, and the general economic menace that they constitute. It also shows how farmers made meat of grasshopper as a way of reducing their numbers and how, in the case of *Zonocerus variegatus* or variegated grasshopper, farmers' concerns shifted from pure ecology to economics, 'reflecting the rapidly changing market conditions for foodstuff in drought-affected, post-war Nigeria, as well as internal changes in the local economy...'<sup>132</sup> Barker and his colleagues therefore make two general points. The first is that local farmers are no less rational than extension officers in their attitudes and responses to agronomic problems as well as environmental hazards. Secondly, local knowledge and local initiatives can be ignored only at the cost of agricultural progress at farm level. Research should in fact be directed at harnessing and systematizing local strategies for coping with environmental hazards.

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<sup>129</sup> Atte, 'Resources', chp. 7.

<sup>130</sup> Uzozie, 'Tradition', chp. V.

<sup>131</sup> Barker, Oguntoyinbo and Richards, 'Peasant Farmer's Knowledge'.

<sup>132</sup> *Ibid.*, pp. 45-46.

In general terms, the Ekiti-Akoko area has a relatively stable ecological history. The last known widespread drought was in 1945, when yam harvests in northern Ekiti area dropped by half and nearly all of the second maize crop was lost.<sup>133</sup> One respondent told me he consumed *gaari* or cassava flour for the first time in 1945 because the yam harvest was poor. But he also recalled being scolded by his father for consuming *gbòngbò igi*, a parody of cassava as worthless ‘woody’ roots normally consumed by poor or indolent men. Jones expressed a similar sentiment by depicting cassava as a crop that self-reinforces indolence: on the one hand, cassava appeals to lazy men because it is easy to cultivate; on the other hand, growing it makes such men lazier still!<sup>134</sup>

There has been the occasional windstorm about which very little can be done. There was also a rare but widespread bushfire in parts of Ekiti North and Ero LGAs in 1984. But local farmers quickly converted this into positive ends by planting maize on many of the newly-burnt out fields. The result was a remarkable increase in local maize supply by mid-1984.

In the absence of mechanical irrigation, timely rains remain a critical hazard, especially in periods immediately before major farm operations. Drought, or its polar opposite, heavy or torrential rainfall, is regarded as an unnatural condition. As Uzozie has remarked in another context, both could be the outcome of malevolent acts, for example, of rainmakers intent on demonstrating their skills, of medicine men seeking to market their wares by first of all showing off their efficacy, or of envious neighbours seeking to ruin local festivals, private marriage, house-warming, or burial ceremonies.<sup>135</sup> It is also believed that intervention by powerful rainmakers could affect neighbouring villages. Such intervention could have been intended for the rainmaker’s village only; or he could have been paid by villagers themselves to spite rival groups or the entire village.

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<sup>133</sup> Ondo Prof. 1/1/120A, NAI, p. 5.

<sup>134</sup> Jones, *Manioc*, p. 280.

<sup>135</sup> Uzozie remarks [in ‘Tradition’, p. 193] that his house ‘was nearly attacked [in 1972] by angry village women who alleged that he had paid a rainmaker to withhold the rains while he was constructing a water tank.’ In 1975 ‘the same group of women undertook to marry a wife for the most powerful rainmaker simply because it was alleged that he withheld the rain during a new yam festival.’

The first rain generally signals the beginning of the farming season but does not always bring forth a smile from every member of the community. The rains signal the end of the high season for log-felling as well as log transporters, the latter because rough and ready feeder 'roads' become impassable to heavily-laden lorries. Tobacco growers also face increasing costs and greater risks once the rains set in. With the early rains, tobacco leaves take longer to dry; the quality of the dried leaves might disintegrate in the process, and affected leaves may attract lower prices in the market. (Unlike in northern Oyo State where farmers grow tobacco leaves under contract with the Nigerian Tobacco Company, farmers in northern Ondo State produce and market their tobacco leaves independently, with the more notable ones taking their crop to Lagos or to other urban centres to sell).

There are also added opportunity costs: since early rains mean an extended period of 'waiting' before tobacco leaves are or could be marketed, resources that could be expended on other farm chores would have to be redirected subsequently to tobacco leaves. Thus a farmer who grows yams and tobacco might be forced to spend time at home to dry his tobacco leaves in the sun; if he chose to leave them on site, he would still have to devote scarce labour and time (resources which, by now, could be better expended on weeding yam/maize plots) to pluck tobacco leaves. In short, rainfall or the lack of it has led to occasional squabbles within (and, in extreme cases, between) communities. One age-old practice in villages where the rains are late has been to shut down all economic activity and thereby interest everybody in the rain question. Whenever this has applied, local markets have been closed down usually and women in affected villages barred from taking their wares to neighbouring markets. Men also have been prohibited from going to their farms on appointed days - usually local market days. The sanctions have affected virtually every villager and even extended to traders and others from neighbouring villages, supporting Page and Richards' view on the effectiveness of communal action on ecological matters.<sup>136</sup>

Pests, both human and non-human, are the other major environmental difficulty in the project area. Local perceptions of these hazards have changed remarkably, as the case

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<sup>136</sup> W. Page and Paul Richards, 'Agricultural Pest Control by Community Action: The Case of the Variegated Grasshopper in Southern Nigeria', *AE*, II, 4 and III, 1 (1977), pp. 127-141.

of rice illustrates. In the 1950s, Ayedun was a major centre for rice production, with a co-operative rice mill located at the market centre; plans by government to construct grain silos were not to materialize until the 1980s. By the 1960s, according to oral accounts, Ayedun's rice fields were being attacked year after year by birds which came just as the plants flowered, destroying entire yields in some cases and scuttling the maturation of the crop in others. The damage wreaked on the local rice crop soon became a disincentive to production, and Ayedun's rice fields all but disappeared until the 1980s. Initially, the migrating birds were usually attributed to malevolent neighbours employing witchcraft to offset rivals' economic or social advantage within the village or block further progress. Recently, farmers have generally moved away from purely supernatural conceptions of the bird menace to more mundane explanations and practical remedies.

Three related bird control mechanisms (which also apply to some other insects or pests) are now commonplace in and outside the project area. The first is the direct policing of rice farms with humans, especially women and children but also including men. Their main task is to throw missiles - for example, stones, sticks, or anything else - in various directions to terrorize birds and possibly drive them away from the rice fields concerned. They also whistle, sing or make other loud noises to the same end. This mechanism has the advantage of producing direct and immediate results, but it is tiring, monotonous, and relatively labour-intensive. It is also feasible during daytime only, leaving rice fields 'unprotected' at nightfall.

The second major bird control mechanism involves the simulation of human presence in rice fields. This takes at least two forms. The first is to dress up tree trunks or sticks with discarded human clothing and to place them at strategic locations on the field. Sometimes miniature bells or other objects are attached to these scarecrows to make noise when the wind blows. It is believed that birds are scared by the likelihood that such effigies might in fact be human beings, and if they were, by the danger that humans could inflict on their number. The second simulation mechanism involves the placing of carefully folded plastic sheets on sticks or on tree branches. When the wind blows, each sheet produces a sound similar to an object being rolled in the air or to a car being revved up. Many such sheets create an eerie feeling around the field, sufficient to give

the impression of human presence and to deter birds. Either way dummies are used to supplement humans in policing rice farms, thereby releasing scarce labour for alternative daytime tasks and keeping birds at bay at night. The one problem with these simulation techniques is that birds do get used to them after a short while, when they could then attack and destroy rice fields regardless.

The third local initiative encompasses the entire foundations of existence in traditional Yoruba society. It is known as *jùjú*, or variously as ‘African science’, ‘ethno-science’, ‘folk science’, ‘village science’ in the wider literature.<sup>137</sup> In the present context, ‘village science’ involves the making and placing of charms on farms to deter thieves or other animal and human trespassers from stealing produce from or otherwise entering the fields. The nature and components of charms employed for this purpose differ widely between communities, between farms, and between *Babaláwo* (or herbalists) who make them. Oral traditions are replete with cases in which thieves have been caught in the act because the *Alilè* on location incapacitated the thieves or otherwise turned them to involuntary labourers on the fields they had just stolen from. Such thieves are often ‘arrested and detained’ on the farms with their loot by the watchful *Alilè* until the owners come round to deactivate the charms and set the thieves free, usually after paying a fine or making some other form of restitution.

Village science has also been employed to deter animals and birds from attacking rice fields. To this end, rice seeds are often sprinkled with medicinal preparations before they are planted, the objective being to make the seeds poisonous and unavailable to birds and rodents that might want to pick them before they germinated. Similar treatment is also given to other grain seeds, usually at the point of planting to ensure that poisoned grains are not processed for human consumption. In fields with growing rice plants, a mixture of dried herbs, which may or may not include *ataare* (alligator pepper) is added to small fires in various parts of the field so that the ‘impregnated’ smoke can spread to all corners of the rice farm concerned. A variant of this technique is to make liquid concoctions (*Àgbo*) of selected herbs and sprinkle the mixture all over the farm. Either

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<sup>137</sup> Richards, “Alternative” Strategies; cf. Brokensha, *Indigenous Knowledge*.

method results in an unpleasant smell which in turn repels birds and other insect pests. This treatment is applied in particular to growing rice plants to discourage cane rats (*Ọyà*) from uprooting rice plants or cutting their stalks for food. Similar treatment takes the rice fields concerned out of the normal reach of birds, especially at flowering stage.<sup>138</sup>

It is difficult to make precise statements on the efficacy of the above mechanisms in the absence of sustained research into 'village science' or into its specifically agrarian elements. It is also difficult to assess the relative usefulness of each mechanism, largely because the average small farmer often employs two or more mechanisms simultaneously. Insofar as bird control in rice fields is concerned however, 'village science' has ceased to be the legacy of a distant past which conservative peasants have chosen to hang onto. 'Village science' seems to have been embraced in government farms in Ondo and Oyo States and may well herald a new syncretism in formal and informal approaches to crop and farm management in southwestern Nigeria.

In 1979, for example, J. A. Oshakuade, a senior agricultural officer in Ondo State, suggested to a conference at which the efficacy of recommended food production packages in southwestern Nigeria was reviewed, that 'African science' be experimented with to combat the menace of birds on rice farms.<sup>139</sup> Nigeria's oil-induced food import regime of the 1970s had become clearly unsustainable by 1978, partly because of instability in the oil market and attendant shortfalls in Nigeria's revenue projections, and partly because the operations of the first generation of ADPs in northern Nigeria 1974/75 had created new opportunities for the local production of internationally traded grains, especially rice and maize. As part of that nation-wide concern, Ondo State's agricultural department had inaugurated a grow-more-rice-campaign to seek new converts into rice cultivation or at least encourage existing producers to put more land under rice. Oshakuade however reported that the campaign was hampered by swarms of birds which

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<sup>138</sup> For a similar account, see Atte, 'Resources', pp. 404-406.

<sup>139</sup> J. A. Oshakuade, 'Evaluation of Package Recommendation on Food Crop Production in Ondo State', in *Report of the 8th Annual Conference on Package Recommendations for Production of Food Crops in Southwestern Nigeria* (Ibadan, 1979), p. 18.



were attacking rice fields in the state. Having reviewed tested but ineffectual solutions, Oshakuade advised a recourse to 'African science' to protect rice farmers from incessant economic losses and to ensure that the state's rice output did not decline.<sup>140</sup> Coincidentally, Oshakuade's counterpart from neighbouring Oyo State reported the same problem and confirmed that they had tried Oshakuade's suggested solution in Oyo State. However, *jùjú* did deter birds on one rice multiplication plot but failed pointedly to do the same on a second, similar plot!<sup>141</sup>

This case may seem isolated and perhaps too limited to support general inferences on the wider applicability of principles of village science in the modern sector. Oyo State's experience also raises questions about the efficacy of traditional strategies for coping with pests and even more fundamental questions about their replicability. The experience does suggest however, that the boundaries between formal and informal management strategies are socially constructed and not inviolable. The overall point therefore is that official agricultural development schemes would be more productive both economically and socially if they were *moved* closer to, and draw upon, local traditions on agricultural resource use and resource management. One prior requirement though is that local practices be standardized through appropriate research and development.

## 5.6 Conclusion

Farming systems analysis is as much about relations between farmers and bio-technical developments as it is about micro-macro linkages in agricultural development. But agricultural development policy and programmes in post-colonial Nigeria have tended to emphasise general bio-technical issues more than micro-level human and social factors.<sup>142</sup> Yet, as a Bhaduri and Smith and Sender have shown in different contexts, agrarian change will in the final analysis depend not so much on the availability of technical equipment as on context-specific trial and error by smallholders and complex

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<sup>140</sup> *Ibid.*

<sup>141</sup> *Ibid.*, p. 22.

<sup>142</sup> Cf. Robert Chambers, *Rural Development* (1983).

relations between small farmers and the wider economy.<sup>143</sup>

Peasant rationality, it is now widely accepted, cannot be determined *a priori*. To do so is to conflate the rationality of means with the rationality of ends - to assume, in other words, that peasants subscribe to a particular set of values, and in addition, have the capacity to realise those values.<sup>144</sup> One effect of this sweeping but largely mistaken generalisation has been to understate the extent to which macro-institutional factors could constrain micro-experiences as well as programme replication and sustainability.<sup>145</sup> Another is to deny the authenticity and diversity of small-scale experimentation with new ideas and techniques, experimentation which has been shown to result in significant advances in the use of productive resources, as in labour productivity in Asia's rice economies.<sup>146</sup>

This chapter has shown how crop production and farm management techniques in the Ekiti-Akoko area are deeply rooted in the ensemble of local traditions and initiatives, and how small farmers have exploited nature without provoking local ecological imbalance. Production possibilities as well as enterprise combinations in the food sub-sector are constrained not so much by access to farmland as by acute scarcity of labour and fixed capital, especially modern, efficient, implements. There is an emergent increase in formalisation and hence commercialisation of small scale food production, but this has been syncretic, a movement along the tradition-modernity curve than a shift from subsistence to commercial production.

Even so, Ekiti-Akoko's experience has highlighted three contentious issues in the

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<sup>143</sup> Amit Bhaduri, *The Economic Structure of Backward Agriculture* (1983), p. 127; John Sender and Sheila Smith, *Poverty, Class, and Gender in Rural Africa* (1990), p. 75.

<sup>144</sup> Anthony Hopkins, 'Rationality and Technology in African History', *Technology and Culture*, 16, 3 (1975), pp. 462-465.

<sup>145</sup> Hans Gsänger, *The Future of Rural Development* (1993), p. 8; cf. Michael Cernea, 'Sociological Knowledge for Development Projects', in Cernea (ed.), *Putting People First* (New York, 1991), p. 6.

<sup>146</sup> Bray, *Rice Economies*; cf. Samuel L. Popkin, *The Rational Peasant* (Berkeley, 1979); and David Feeny, *The Political Economy of Productivity* (Vancouver, 1982).

literature. The first concerns the relative allocation of resources between cassava and yam. Jones had argued in the 1950s that the growth of cassava cultivation reflected farmers' desire to maximise returns to land. Paul Richards had argued the contrary, insisting that peasant farming is typically labour-scarce, and that peasant resources are allocated primarily to maximise returns to labour. Both arguments could be sustained under particular resource circumstances, but my own survey data and wider evidence on Ekiti-Akoko's land-surplus economy, presented in section 5.3 above, have supported Richards' position. This point is examined further in chapter 7.

The second issue has been the shift from roots and tubers to grains, regarded widely as indicating movement from what may be called 'ethnic foods' with geo-culturally limited demand to globally tradeable items like rice and maize. The available evidence suggests that this movement has taken roots in the Ekiti-Akoko area, though maize has remained an opportunity crop, cultivated more to maximise returns to labour than in response to prices. Rice-growing seems to have been more price-responsive. A small-scale farmer even told me in Imojo in 1992 that he sold his rice harvest when market prices were high and subsequently bought rice for his family's consumption needs. Still, large-scale rice cultivation has been relatively limited to a handful of villages, of which only Igbemo is within the project area. As the analysis showed, large numbers of people from within and outside Ondo State migrate annually to Igbemo to provide labour for the rice harvest. More specific investigation than that undertaken here is necessary to determine how rice production in Igbemo has affected other crops, or indeed the intensity of and implications for the local economy of crop specialisation in Igbemo and other rice-producing villages in Ondo State.

Finally, there has been considerable change in official attitudes to rural society and vice versa. The analysis showed a growing, albeit very slow, appreciation of indigenous knowledge among government officials. There is still substantial scope, however, for open-ended research as a prelude to collaborative efforts to bridge the gap between technology-driven agriculture and traditional production methods.

## Chapter 6

### Extension Mechanisms and Processes

#### 6.1 Introduction

In chapter 5, it was suggested that a new but as yet undefined syncretism of elements from traditional and modern farming techniques has been emerging in the Ekiti-Akoko area. In this chapter, the responses of Ondo State's food crop farmers to 'modern' agricultural practices, as exemplified by EAADP and ODSADEP's extension mechanisms, would be further analyzed. Based primarily on my survey of farmers in four villages around Ayede in northeastern Ondo State, the chapter ascertains how much difference project extension has made over the years.

Agricultural extension refers to formal and informal modes of boosting farm output and productivity through improvements in production methods and techniques.<sup>1</sup> Two basic elements are usually emphasised, namely, education in best-practice techniques and the provision and delivery of support services, such as information on farm management and farming systems to facilitate efficient decision-making at farm level.<sup>2</sup> The usual object is to train and influence farmers in order that they could achieve economic fulfilment by themselves.

Official extension work in Nigeria dates back to the beginning of formal colonialism in the late 19th century. Since then, extension officers have been consistent in seeking to change farmers' world view on commodity production. Early extension work was aimed at 'inducing the people, by more consistent propaganda, to adopt new crops - which they had frequently proved reluctant to do, in spite of persuasion and promise of future profit.'<sup>3</sup> In 1922, Odin Faulkner, Nigeria's first Director of Agriculture, had described agricultural extension as

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<sup>1</sup> S. K. T. Williams, *Rural Development in Nigeria* (Ile-Ife, 1978), pp. 69-72.

<sup>2</sup> Donald Williams, *Agricultural Extension* (Melbourne, 1968), pp. 8-10.

<sup>3</sup> O. T. Faulkner and J. R. Mackie, *West African Agriculture* (Cambridge, 1933), p. 3.

the work of advising, instructing, teaching, or exhorting the native farmers in the way they should go, through the agency of itinerant instructors...Armed with the ability to make experiments, and with their wider intelligence, there is no doubt that agricultural officers can learn so much about the work and problems of the native farmer, as to be able to some extent, to teach him "his own business."<sup>4</sup>

Some scholars have attributed Faulkner's initial approach to inadequate official knowledge of local socio-economic resources and farming practices. Paul Richards and H. Vine have likened Faulkner, a botanist, to the professional scientist imbued with 'the ability to apply a logical, scientific mind to the problems of agriculture.'<sup>5</sup> Faulkner's approach to extension, Vine wrote further, indicated colonial officials' desire to 'acquire specialised knowledge about local conditions and the scientific and economic facts which led to their evolution.'<sup>6</sup> In fact, extensive research on the scale envisaged by Faulkner never took place, because the Agriculture Department 'lacked adequate funds and staff', and because available resources were dedicated to the more immediate need to 'stimulate production for export by native farmers.'<sup>7</sup> Faulkner subsequently modified some of his opinions to accommodate local farmers' views and aspirations, but details are not necessary here.<sup>8</sup>

More recent conceptualisations of agricultural extension in Nigeria have built upon Faulkner's pioneering efforts without abandoning his patronising view of 'native farmers' or the temptation to (re)define reality for them.<sup>9</sup> In a public lecture delivered in 1989,

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<sup>4</sup> O. T. Faulkner, 'The Aims and Objects of the Agriculture Department in Nigeria', *First Annual Bulletin of the Agricultural Department* (Lagos, 1922), p. 8, p. 6.

<sup>5</sup> H. Vine, 'Some Comments on the History of Agricultural Research in Nigeria', *NAJ*, 1, 1 (1964), p. 5.

<sup>6</sup> *Ibid.*; Paul Richards, 'Farming Systems and Agrarian Change in West Africa', *PHG*, 7, 1 (1983), p. 2; Tom Forrest, 'Agricultural Policies in Nigeria, 1900-78', in J. Heyer, Pepe Roberts and G. Williams, *Rural Development in Tropical Africa* (1981), pp. 225-227.

<sup>7</sup> Faulkner and Mackie, *Agriculture*, pp. 3-5; Robert Shenton, *The Development of Capitalism in Northern Nigeria* (1986), p. 120.

<sup>8</sup> Faulkner and Mackie, *Agriculture*, chp. 8.

<sup>9</sup> A. U. Patel and J. A. Ekpere, 'Strategy for Agricultural Development at Grassroot Level: A Nigerian Case', in Bruce Crouch and Shankariah Chamala (eds.), *Extension Education and Rural Development*, Vol. 2 (Chichester, 1981), pp. 213-220. For a review of Nigeria's experience, see A. A. Adegbola and I.A. Akinbode, 'A Review of Old and Current Agricultural Development Schemes in Nigeria: Lessons for Future Programme Designs', *IJA*, 8 (1986).

S. K. Williams, a former senior agricultural officer in Western State and Professor of agricultural extension at Ife and Ibadan Universities, gave new currency to Faulkner's view of the extension worker 'as the enlightened leader of a backward people.'<sup>10</sup>

According to Williams, agricultural extension is

an out of school system for *teaching* farmers how to raise their standard of living by their own efforts and using their own resources by providing them with scientific knowledge to solve their problems...To be successful, extension must start at the stage of development that the farmers are and gradually *build them up* to a level of higher standards of achievement.<sup>11</sup>

Agricultural extension is conceived here as a method and a process. As a method, extension mechanisms *define* EAADP and ODSADEP's approaches to the propagation of high-yielding variety (HYV) seeds and improved cultural practices among farmers in the traditional agricultural sector. As a process, extension is the focal point of contact between ADPs and their farming populations.<sup>12</sup> Extension thus provides valuable insights into the general character of state-farmer relations as well as a substantive counterpoint to ADPs' more visible turn-key tasks, such as road construction and irrigation development.

The rest of the chapter comprises five sections. The next section examines EAADP's extension objectives and its attempt to implement the training and visit system (T&VS), an organisational framework for agricultural extension promoted by the World Bank. Section three analyzes the extension staff-farmer ratio in the project area and the recruitment of primary school leavers as extension agents in the 1980s. Section four describes non-farm extension mechanisms, including meetings with and visits to farmers by agents, while section five assesses the project's contact farmers' and outgrowers' schemes. Section six concludes the discussion.

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<sup>10</sup> Faulkner and Mackie, *Agriculture*, p. 78.

<sup>11</sup> S. K. T. Williams, 'Extension Services Within the Strategy of Agricultural Development in Nigeria in the 1990s', *Sixth ARMTI Lecture* (Ilorin, 1989), p. 19; p. 23. Emphases added.

<sup>12</sup> S. K. Williams, *Rural Development*, pp. 93-95; J. A. Alao, 'The Extension of Agricultural Innovations', in E. O. Akeredolu-Ale (ed.), *Social Development in Nigeria* (Ibadan, 1977), pp. 233-250; Jerome Wells, *Agricultural Policy and Economic Growth in Nigeria 1962-68* (Ibadan, 1974), p. 268.

## 6.2 Agricultural Extension in Ekiti-Akoko ADP

Christensen has observed that small scale food production in the Ekiti-Akoko area has been constrained by the supply of improved seeds and the supply of fertilizer, 'the one single agricultural input which is responsible for the highest yield increase of crops.'<sup>13</sup> According to him, local farmers have been unenthusiastic about adopting fertilizer partly because generalized fertilizer use in the area dates back only to the 1970s, when the required distribution infrastructure was established in the Ekiti-Akoko area. Moreover, farmers did not understand how to apply fertilizer in the right quantities and could not appreciate its considerable benefits.<sup>14</sup>

The basic objective of EAADP's extension, therefore, has been 'to educate farmers so that they could adopt advanced cultivation techniques, including farm mechanisation and/or use of minimum tillage to progressive individual and group farmers.'<sup>15</sup> Improved (HYV) seeds, seedlings, and/or stem cuttings were to be promoted among small farmers. So were the effective use of fertilizer, simple labour-saving technology, as well as the adoption of cultural practices like mono cropping and crop rotation. The project also planned to encourage 'grouped farming' in the short-term and all-year cropping in 'permanent' farm settlements by building 35 irrigation dams of 35,000 cubic metre each. This element of EAADP's extension was designed to overcome the problems occasioned by land fragmentation by encouraging farmers to expand their holdings to about 4 ha. per capita to make mechanisation economically feasible. But, as indicated in chapter 4, it never saw the light of day.

The project's extension programme was based on the training and visit system (T&VS), an organisational framework formulated in the 1970s by Benor and Harrison.<sup>16</sup> Informed

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<sup>13</sup> Jens Christensen, *Ekiti-Akoko Agricultural Development Project Final Report* (Ikole-Ekiti, 1984), p. 54.

<sup>14</sup> *Ibid.*, pp. 54-55.

<sup>15</sup> A. U. Patel, 'Agriculture and Technical Services', in APMEPU, *Ekiti-Akoko Agricultural Project Completion Report, Vol. III Main Report*, p. 4.

<sup>16</sup> Daniel Benor and Michael Baxter, *Training and Visit Extension* (Washington, 1984); cf. Benor, James Harrison and Baxter, *Agricultural Extension* (Washington, 1984).

largely by Asian experience, T&VS has sought to facilitate commercial production by channelling extension advice to individual farmers in small, compact groups. It has also promoted the diffusion of labour-saving technology for small farmers through adaptive research, a combination of on-station and on-farm research which seeks to close the gap between agricultural research and practice by relating farmers' operational experience to researchers and encouraging farmers to experiment with research-induced solutions.<sup>17</sup> Training and visit thus requires that extension agents be trained continuously on technologies adaptable to small farmers' circumstances by subject-matter specialists drawn from universities or research institutes.<sup>18</sup> Agents are in turn expected to train farmers and report their opinions and difficulties to researchers.<sup>19</sup>

In pursuit of T&VS, EAADP established a four-tier pyramidal extension organisation at headquarters, areas, zones and villages or sub-zones, with control over policy moving from top to bottom and grassroots information moving in the opposite direction. However, this organisational structure is not novel. In 1971, Olayide and others had criticised similar structures in post-colonial Western Nigeria because they tended to centralise decision-making. This had in turn denied autonomy and initiative to field officers on the ground, increased the turnaround time of information, and above all, encouraged inefficiency.<sup>20</sup>

Ekiti-Akoko ADP sought to pre-empt these negative possibilities by emphasising lower level structures in its extension organisation. For example, two-thirds of the 5,222 recipients of its training programmes in 1982-86 were farmers. With an additional 19% of training beneficiaries provided by its junior staff, 70% of the project's 2,295 training

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<sup>17</sup> Benor and Baxter, *Training*, pp. 99-104. Cf. C. O. Iwueke, 'Adaptive Research', in APMEPU, *EAADP Completion Report*, p. 24.

<sup>18</sup> Benor and Baxter, *Training*, pp. 17-18; pp. 33-38.

<sup>19</sup> *Ibid.*, pp. 13-17. For a critique of T&VS, see Dominique Gentil, 'A Few Questions on the Training and Visit Method', in Nigel Roberts (ed.), *Agricultural Extension in Africa* (Washington, 1989), pp. 25-29.

<sup>20</sup> S. O. Olayide, E. O. Idusogie, and Dupe Olatunbosun, 'New Dimensions in the Administration of Agriculture in Nigeria', *QJA*, 6, 1 (1971), pp. 55-69; summarized in Paul Collins (ed.), *Administration for Development in Nigeria* (Lagos, 1980), p. 277-279; p. 283.



man-hours in 1982-86 had been dedicated to lower-level segments of farmers and staff.<sup>21</sup> In short, T&VS has had the effect of taking EAADP's training programmes closer to the village level.

The project also operated within SAR's relatively bottom-heavy extension organisation. By 1984, 25 zones and 65 sub-zones had been established and fully manned by Zonal Extension Officers and Agricultural Inspectors respectively.<sup>22</sup> Field Assistants also constituted about two-thirds of the project's extension staff each year from 1982 to 1986.<sup>23</sup> This broadly achieved the 51-72% target in the SAR for the period. Initially, all five area officers and 15 zonal officers were seconded from the state's ministry of agriculture.

In 1982, EAADP recruited 60 field assistants directly, most of them primary school leavers with practical farming experience.<sup>24</sup> This enabled the project to exceed SAR's target for field assistants by 180%. Their number increased to 64 in 1984 but declined to 44 (33% of SAR target) two years later. By 1986, all incumbents had left or been sacked for reasons identified below, leaving 175 positions vacant;<sup>25</sup> the post was itself abolished and redesignated Village Extension Agent (EA) in the same year. In 1987, 33 holders of the Ordinary National Diploma (OND)<sup>26</sup> were recruited into the newly created posts.<sup>27</sup> The number of agents dropped slightly in 1988 but increased by 161% to 86 in 1989 and to 100 in 1990. By mid-1991, ODSADEP had 162 agents on its

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<sup>21</sup> Computed from O. Famoriyo, 'Organisation and Management', in APMEPU, *EAADP Completion Report, Vol. II* (Benin-City, 1986), p. 11.

<sup>22</sup> Christensen, *Final Report*, p. 32.

<sup>23</sup> Computed from Patel, 'Agriculture', p. 16.

<sup>24</sup> Christensen, *Final Report*, p. 32.

<sup>25</sup> Patel, 'Agriculture', p. 16.

<sup>26</sup> Nigeria's polytechnics award OND after at least two years of study. To qualify for admission, a candidate is normally required to have at least three credit passes in relevant subjects at ordinary level General Certificate of Education (GCE).

<sup>27</sup> Patel, 'Agriculture', p. 16.

payroll,<sup>28</sup> a direct result of the change in EAADP's status from enclave to state-wide project. The extension division of the state's Ministry of Agriculture was also transferred to ODSADEP, swelling the latter's staff and organisational bequest from EAADP.

### 6.3 Extension Staff-Farmer Ratio

Two measures of agricultural extension outcomes are available in the literature, namely the diffusion rate and the extension staff-farmer ratio. This section examines the latter in the Ekiti-Akoko area and alternative explanations of project impact on the ratio in the 1980s.

The extension staff-farmer ratio (ESFR) is an arithmetical indicator of the density of extension staff within a specified politico-administrative unit. It is not a representative measure of the distribution of staff among the farming population. Rather, it is a means of assessing the workload of extension staff, and implicitly, the average farming family's potential to receive advice and assistance on new technology and cultural practices. As such, ESFR says little, if anything, about the quality or depth of extension contacts: a declining ESFR merely suggests increasing *potential* for direct contact between extension staff and farmers, while a rising ESFR means more families per extension worker. Since extension agents cannot see all farmers physically, rising ESFR increases the likelihood that more farming families would rely on second hand information, make their own adaptations, or revert to traditional practices.

Ekiti-Akoko ADP's impact on extension staff-farmer ratios is not as straightforward as it may seem. Available information on pre-project ESFR is conflicting and often of questionable comparative value. Christensen has suggested, for example, that pre-project ESFR stood at around 1:4000.<sup>29</sup> But he provided no details on how the figures were derived. In turn, Idachaba's nation-wide survey provided more details and suggests a slightly different picture; but this has to be adjusted to reflect EAADP's rural focus more

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<sup>28</sup> ODSADEP, 'Ondo State Implementation Strategy for the Achievement of the National Agricultural Policy', Internal Briefing Paper, Table 3, p. 6.

<sup>29</sup> Christensen, *Final Report*, p. 36.

closely. What follows juxtaposes available information to draw inferences on the outcome of project extension.

By 1980, according to Idachaba's survey, the ESFR for the Ekiti-Akoko area stood at 1:2460.<sup>30</sup> The calculation was, however, based on a total estimated farming population of 140,205, including urban-based farmers excluded from APMEPU's projections for the Ekiti-Akoko project.<sup>31</sup> If APMEPU's estimated farming population of 75,548 was adopted, and extension staff elasticity was held constant, pre-project ESFR would be around 1:1328, slightly lower than the 1:1387 suggested for Ondo State in the Idachaba report.<sup>32</sup> If, on the other hand, the more general view that about 70% of Ondo State's farmers live in villages was adopted, and staff elasticity was held constant, a derived farming population of 98,144 and pre-project ESFR of 1:1722 would be obtained for the Ekiti-Akoko area.

In this context, it was grossly unrealistic to expect ESFR to fall to 1:400/600 over a five-year period, as in EAADP's projections. Christensen's assertion that EAADP *actually* reduced ESFR to as low as 1:620 by 1984<sup>33</sup> is also suspect on at least two grounds. First, Christensen used an extension staff complement of 105 to compute his ratio when actual staff size ranged from 89-96 up to 1984 and declined first to 68 in 1985 and further to 48 in 1986.<sup>34</sup> Second, on the strength of Christensen's pre-project ESFR of 1:4000, an estimated post-project ESFR of 1:620 implies a five-fold increase in extension staff over 1981-84. In fact, staff increases totalled 223%, or 56-68% per annum in 1982-84 with Idachaba's figures as base rates. Christensen's figures are thus likely to have been prompted more by a desire to show that performance targets were being met than by realities on the ground. The project's targets on ESFR were clearly unattainable under the circumstances.

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<sup>30</sup> Francis Idachaba, *Rural Infrastructures in Nigeria* (Ibadan, 1985), Table 496, p. 702.

<sup>31</sup> APMEPU, 'EAADP Report on the Village Listing Exercise' (Benin City, 1982), p. 5.

<sup>32</sup> Idachaba, *Rural Infrastructures*, p. 702.

<sup>33</sup> Christensen, *Final Report*, p. 36.

<sup>34</sup> Patel, 'Agriculture', p. 16.

A relatively independent assessment has reached substantially different conclusions from Christensen's but supports my own view. According to Professor Patel, EAADP did make some progress with ESFR in 1982-86, but the overall balance was negative.<sup>35</sup> The ratio declined initially by 6.4%, from 1:1250 in 1982 and 1983 to 1:1171 in 1984 (cols. 2 and 3 of Table 6.1). Thereafter, it rose sharply by 46% to 1:1704 in 1985 and by another 33% to 1:2273 in 1986. In 1982-86, according to Patel's calculation, EAADP's performance averaged 42% of SAR's target (col. 4, Table 6.1). Yearly returns are however more revealing. From an average 48-51% in 1982-84, ESFR in Ekiti-Akoko area declined to 35% of SAR target in 1985 and 26% in 1986.

**Table 6.1**  
**Extension Staff-Farmer Ratio in Ekiti-Akoko Area, 1982-86**

(1) Year	(2) ESFR	(3) % change	(4) % SAR	(5) Index (pre-project 1:1328=100) <sup>a</sup>
1982	1:1250	-	48.0	94.1
1983	1:1250	0.0	48.0	94.1
1984	1:1171	6.4	51.0	88.2
1985	1:1704	-45.6	35.0	128.3
1986	1:2273	-33.4	26.0	171.2
Average	1:1530	-	42.0	115.2

Note: <sup>a</sup> Base figure derived from Idachaba, *Rural Infrastructures*, p. 702.

Sources: Cols. 2 and 4 - Patel, 'Agriculture and Technical Services', p. 4; cols. 3 and 5 - computed.

Still, Patel's efforts were largely descriptive and of very little comparative value. Project performance with regard to ESFR had been assessed only in the context of its internal objectives and targets rather than in relation to extra-project benchmarks. Further, in failing to link past and present ESFR estimates, Patel provided no clues on whether the average Ekiti-Akoko farming family stood a better chance of receiving direct extension advice and assistance in 1986 than it did in 1980.

An index of ESFR in the project area has been computed with the derived pre-project ESFR of 1:1328 as base figures to overcome this difficulty. The results, presented in column 5 of Table 6.1, provide broad support for Patel's view that ESFR actually rose

<sup>35</sup> *Ibid.*, p. 4.

in 1982-86. But the index suggests that decreases over the pre-project period of 6-12 units to 1984 were more than offset by increases of 28-71 points in 1985-86. Extension staff-farmer ratios therefore rose by an average of only 15 points in 1982-86 as a whole.

### **6.3.1 Explaining the Extension Staff-Farmer Ratio**

Why did Ekiti-Akoko ADP perform so poorly in improving extension staff density? Patel's analysis highlighted two possible explanations, namely, increases in the number of farming families and the allegedly poor quality of extension staff. Regarding the first, Patel suggested that project activities may have occasioned increases in the number of farming families which, in turn, stretched available staff more than anticipated. This explanation is plausible but also highlights the weak statistical basis of project projections. If, as is possible, the number of farming families did increase during project life, such increase must be attributed to either or both of two factors. One is a possible underestimation of the rural farming population in the SAR or in the village listing exercise by APMEPU. If this was the case, projected demand for extension services by the assumed number of farming families was also certain to have been underestimated, and no realistic basis would exist for precise conclusions on the project's ESFR performance.

The other possible explanation for increases in the number of farming families could be that hitherto non-farming families moved over to agriculture to swell the farming population in the project area. This position is implied by Patel and perhaps preferred by project functionaries, but it flies in the face of the lack-lustre picture of project operations painted on these pages. Moreover, without prejudice to project successes, a five-year operational life seems too short to stimulate definite changes in local occupational preferences. The period is shorter still for such changes to become manifest, more so since Ekiti-Akoko is part of an area in which the quest for formal education and attendant preference of white-collar careers had constrained labour supply and led to stagnation in agricultural production.<sup>36</sup>

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<sup>36</sup> Adekunle Folayan, *Agriculture and Economic Development in Nigeria* (New York, 1983), pp. 80-86; cf. Tom Forrest, *The Advance of African Capital* (Edinburgh, 1994).

Patel's second explanation, that increasing ESFR could have resulted from the poor quality of village-level extension staff, is equally plausible, although staff quality is slightly removed from the issue of extension staff density. Even so, the quality of senior and junior staff also has been a focal point of debate on EAADP. As I show subsequently, food production as well mechanisation declined in the Ekiti-Akoko project area following the withdrawal of expatriates in 1984. Famoriyo has observed also that three-fifths of EAADP's management staff were just about one year old on the job by 1984.<sup>37</sup> All of this relates, however, to staff turnover and experience while Patel seemed to have emphasised the capacity of extension staff to market project programmes or at least convert more small-scale farmers to EAADP's cause.

As indicated already, in 1982 the project had employed primary school leavers as village extension agents. The desire for formal education in Ondo State is proverbial, and it might at first seem curious that EAADP embarked on this experiment when people with higher formal qualifications were presumably available. Yet, the choice for EAADP's managers was not simply between candidates with primary school leaving certificates and others with higher formal qualifications. The questions are more complex and wide-ranging, including considerations of the place and role of the farmer in the extension process. Was the farmer to be a passive recipient of new ideas imposed from above? Or was he to be 'treated as a source of knowledge and wisdom to be learnt from, argued with and respected'?<sup>38</sup> How was the extension agent's formal educational qualifications to affect the project's relations with farmers? Could higher educational attainments by extension workers hamper access to, or cloud official perceptions of, the farming population?<sup>39</sup>

These questions have exercised policy-makers for decades. In the 1930s, Faulkner and Mackie had reasoned that the extension agent could (and would most probably) differ

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<sup>37</sup> Famoriyo, 'Organisation', p. 8.

<sup>38</sup> G. Williams, 'Ideologies and Strategies for Rural Development: A Critique', in idem, *State and Society in Nigeria* (Idanre, 1980), p. 145.

<sup>39</sup> Donald Williams [*Agricultural Extension*, p. 8] has raised similar queries with reference to developed economies.

from his clients, but they also emphasised that ‘the personality of the manager of the demonstration farm’ and of the itinerant instructor should facilitate rather than impede effective contact with farmers.<sup>40</sup> An agent is more likely to understand farmers’ viewpoints more easily where the social distance between them is minimal. In Faulkner and Mackie’s words, ‘if he is not too superior in social standing to his neighbours, yet is a man of sufficient intelligence and character to command their respect, he may be able to make intimate personal friends among them and to acquire real influence.’<sup>41</sup> In short, the agent’s social standing and formal intelligence cannot be emphasised too far without stretching relations with farmers.

Since the 1940s, staff supply has improved with the expansion of educational opportunities. But the problem has remained how to ensure that change agents reflect the broad socio-economic attributes of their clients and do not ‘look down’ on farmers. Observers of agricultural development in Western Nigeria have often remarked upon educated extension agents’ arrogant and condescending attitudes to the illiterate segments of their publics.<sup>42</sup> This has often been attributed to status-related distance between agents and farmers, or to the failure to create social space that could be shared by both parties. Akinbode’s study of role perception by Western Nigeria’s divisional extension officers has suggested that respondents spent more time on administrative and educational functions than on providing agricultural services to farmers.<sup>43</sup> Olatunbosun also reported a parallel case in the 1960s where farm settlers were treated like junior civil servants, instructed on what to do rather than encouraged to learn to act like independent economic actors.<sup>44</sup> In turn, the settlers had despised extension agents because the latter’s civil

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<sup>40</sup> Faulkner and Mackie, *Agriculture*, p. 83.

<sup>41</sup> *Ibid.*

<sup>42</sup> For an historical assessment of agricultural extension in Ghana, see R. H. Green and S. H. Hymer, ‘Cocoa in the Gold Coast: A Study of Relations between African Farmers and Agricultural Experts’, *JEH*, XXVI, 3 (1966), pp. 299-319.

<sup>43</sup> I. Akinbode, ‘Roles of the Divisional Extension Officers in the Western State of Nigeria’, *QJA*, 6, 1 (1971).

<sup>44</sup> Dupe Olatunbosun, ‘The Farm Settlement: A Case Study of an Agricultural Project in Nigeria’, *BRES*, 6, 1 (1971), p. 13.

service salary was lower than the average settler's earnings. Such settlers had regarded their higher cash incomes as a counterpoint to agents' legitimate authority, which was thereby undermined.<sup>45</sup>

Mutual recrimination between farmers and extension officials has intensified since the advent in the 1970s of ADPs and large-scale irrigation schemes. Mabogunje has reported that some farmers in the Funtua area 'indicated resentment at the idea of young, inexperienced extension workers dishing instructions out to them about farming methods.'<sup>46</sup> Some Ekiti-Akoko farmers also hinted at having 'blanket recommendation dictated [to them] by the Project Extension Staff.'<sup>47</sup> Official irresponsibility has been most remarkable at Bakolori, where large-scale social dislocation was anticipated at design stage but ignored until after project take-off.<sup>48</sup> These and other studies highlight structural and cultural problems in social change, but they also suggest that agricultural extension would be most effective when there is relative value convergence between agents and farmers.

Ekiti-Akoko ADP sought to overcome some of the foregoing pitfalls by recruiting as village agents primary school leavers with hands-on farming experience. The option was also cheaper financially, since a primary school leaver is normally placed at the lowest rungs of Nigeria's public service salary structure where wages could amount to half of a college graduate's earnings. Admittedly, this calculation excludes induction and re-training expenses that may be higher for primary school leavers than for individuals with post-secondary education. But it must not be assumed that an individual's capacity to understand and deploy basic extension skills varies directly with his/her formal

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<sup>45</sup> O. Okediji, 'Some Structural Strains in the Change Agent System of the Western Nigeria Land Settlement Scheme', *NJESS*, 10, 3 (1968), pp. 393-394.

<sup>46</sup> Akin L. Mabogunje, 'The Funtua Integrated Rural Development Project', in R. P. Misra, ed., *Rural Development* (New Delhi, 1981), p. 203.

<sup>47</sup> R. O. Arabi, 'Cropping Practices of Farmers in the Ekiti/Akoko ADP Area, Ondo State, Nigeria', M.Sc Dissertation, Department of Agronomy, University of Ibadan (1985), p. 24.

<sup>48</sup> See, e.g., W. M. Adams, 'Rural Protest, Land Policy and the Planning Process on the Bakolori Project, Nigeria', *Africa*, 58, 3 (1988), pp. 318-320.



educational qualifications. I return to this issue below.

The experiment also had the potential to ensure that agents were not set apart socially from their clients and to remove superior-inferior feelings in agent-farmer relations. The arrangement also provided a potential counterpoint to the widely criticised practice under which 'educated' agents gave disproportionate attention to 'progressive farmers' and then expected extension messages and benefits to trickle down to smaller farmers. As I show shortly, the fundamental premises of the 'progressive farmers' scheme as well as its record have been questioned both in Nigeria and elsewhere.

The immediate point, though, is that the experiment became entangled in the in-fighting between EAADP's expatriate management and local senior staff. As indicated in chapter 3, the latter had criticised the apparently low educational qualifications of expatriates who ran the project until mid-1984. Apparently convinced that basic extension tasks could not be handled by unlettered people, the project's local senior staff had interpreted DARUDEC's backing for agents with little formal education as a logical extension of the educational inadequacies of the project's expatriate managers.<sup>49</sup> The criticism also implied that Ondo State had a large pool of better educated but unemployed youths who could have filled the agents' positions and provided better value for EAADP's money.

The above critique of DARUDEC's staffing policy is widely shared by staff in Ondo State's Ministry of Agriculture. It was in fact mentioned in virtually all my interviews with serving and retired senior project staff. The ancillary point about youth employment in Ondo State is most probably valid, but the argument itself could be cavalier and perhaps mechanistic. On the one hand, the critics appeared to believe that primary school leavers could not acquire through project-based training sufficient understanding of the processes and techniques promoted by EAADP. If this was because primary school education was inadequate to provide the basic skills for village-level extension duties, a larger question arises, namely whether the training and visit system itself could be productive in the circumstances. Since a good proportion of farmers have no formal

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<sup>49</sup> DARUDEC's case is reviewed in Famoriyo, 'Organisation', p. 8.

education, a second question is whether farmers themselves could ever have acquired, least of all internalised, new skills and techniques from project operations.

On the other hand, the critics could have assumed that the problem was less about individual abilities and more about the nature of EAADP's programme. But this would be self-defeating, for it would suggest that EAADP's extension programme was so far removed from the farmers' circumstances that agents had to be recruited from among those whose social vision lay outside the farmer's worldview or was marginal to it. Either way, the underlying assumption seems to be that better qualified people would be as interested in agricultural careers as primary school leavers, or in any case that a relationship exists between the formal educational attainment of village agents and success in agricultural extension. Available evidence is not sufficient to support a precise position, but a reasonable view would be that Ondo State's primary school leavers and OND holders generally would *not* wish to pursue agricultural careers if they had alternative options. Diploma holders are also more unlikely to have practical or enduring interest in farming; indeed, those appointed as agents most probably regarded the position as a stop-gap measure in the quest for white-collar jobs.<sup>50</sup> In sum, EAADP broke no new grounds in extension organisation. Training and visit offered nothing new structurally. In turn, the novel attempt to break with tradition in the recruitment of village agents proved unpopular with local senior officials and was abandoned soon after the departure of the project's foreign managers.

#### **6.4 Non-Farm Contacts**

Non-farm contacts refer to ancillary forms of contact between farmers and extension agents, emphasising advice and information sessions outside ordinary farming circumstances rather than hands-on farming practices by participant-farmers. This section describes EAADP's experience with three such modes of contact, namely, villages meetings, the secondary schools programme, and pamphlets, radio and television broadcasts. The latter are discussed in a separate sub-section to underscore their potential import as mass media of extension and assess their suitability in Ekiti-Akoko's social

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<sup>50</sup> Cf. Folayan, *Agriculture*, pp. 82-83.

circumstances by examining survey data on actual farmers' experience in Ayede, Imojo, Ilafon, and Igede.

Village meetings and personal visits are perhaps the most prominent forms of contact between extension staff and farmers outside the farm. Such meetings are usually convened to exchange information, make arrangements for credit, or attend to other administrative tasks, often by extension staff with support from communal or village groups, or from existing farmers' groups and co-operative societies. Ideally, a zonal extension officer was expected to meet an average of five different farmers' groups per week, while village agents took responsibility for more intensive personal contacts.<sup>51</sup> In practice, personal visits by village agents were restricted to well-to-do 'progressive' farmers, including contact farmers on whose farms demonstration plots are located and adjacent farmers who are expected to help convert their friends and relations to the project's cause.<sup>52</sup>

Patel has suggested that an extension worker conducted an average of eight meetings per year to 1986, with average attendance of 24.<sup>53</sup> At an average staff complement of 77 per annum (excluding the Principal Extension Officer and Chief Extension Officer, who were most likely to be engrossed in administration), Patel's calculations suggest that an average of 624 meetings were held each year to 1986 under EAADP's auspices, with about 15,000 farmers in attendance. If it is assumed that these corresponded to one representative per farming family, then about 20% of the estimated number of Ekiti-Akoko farming families may have participated in project-induced village meetings. If every participant at these meetings passed on the message to one other farmer, up to one-third of the estimated farming families in the project area may have been reached in this circuitous manner.

Available data are more precise on farmer visits by extension agents. According to

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<sup>51</sup> Patel, 'Agriculture', pp. 7-8.

<sup>52</sup> *Ibid.*, p. 9.

<sup>53</sup> *Ibid.* p. 8.

ODSADEP's internal figures, farmer visits by extension agents ranged from 5,030 in 1986 to 11,861 in 1987, averaging 9,120 each year from 1985-88.<sup>54</sup> In 1990, visits totalled 8,256 but declined to 2,400 during the first half of 1991.<sup>55</sup> Figures for 1985-88 refer to EAADP and suggest clearly that an average farming family in the Ekiti-Akoko area had only a chance in ten of being visited by agents. The 1990 figure is worse, perhaps because of ODSADEP's state-wide responsibility for extension. At the estimated farming population of 411,800 for 1980, an average farmer only had a chance in fifty of being visited in 1990. When account is taken of possible uneven distribution of agents between urban and rural areas, and of official preferential treatment of middle peasants and better-off farmers generally, it is reasonable to suggest that a majority of small farmers may not have been visited by agents over the years.

**Table 6.2**  
Frequency of Extension Visits to Respondents, 1992

Frequency of visit	N <sup>o</sup> of responses	% distribution of responses by village			
		Igede	Imojo	Ilafon	Ayede
Very regular, once in two weeks	3	-	-	-	2.9
Sporadic, irregular	4	-	-	-	3.9
Seldom	15	-	14.3	29.2	5.8
No visit	114	100.0	57.1	58.3	87.4
Other <sup>a</sup>	7	-	28.5	12.5	-
Total %	-	100.0	99.9	100.0	100.0
N	143	2	14	24	103

Note: <sup>a</sup> Respondents who claimed to have been visited last in the 1970s.  
Source: Author's field survey, 1992.

Analysis of respondents' claims on the frequency of extension visits supports the foregoing view. Of a total of 143 valid responses (Table 6.2), 114 (or 80%) claimed not to have been visited by agents. An additional 5% of respondents (in Imojo and Ilafon) claimed variously to have been visited last during a campaign on the use of fertilizer on yam plots in the 1970s, well before EAADP commenced business in the early 1980s. Only 2.1% of respondents regarded extension visits as very regular, while another 2.8%

<sup>54</sup> ODSADEP, 'Implementation Strategy', Table 3, p. 6

<sup>55</sup> *Ibid.*

considered them sporadic or irregular. All respondents in the last two response categories came from Ayede, where a high 87% of respondents also claimed not to have been visited at all. In contrast, respondents from Imojo and Ilafon were distributed unevenly between those who claimed that extension visits have been occasional or had long ceased to exist on the one hand, and those who were not visited at all on the other.

There are only two valid responses from Igede, both completely negative. Igede's circumstances however differ from other survey villages: it was a former government farm settlement and remains a relatively outstanding centre of modern agricultural practices in the area. As of March 1992, Igede had 22 resident farming families, two of whom were among its original settlers. Some of the 20 other families/settlers comprised some from neighbouring villages; former staff of the Agriculture Department, as well as two polytechnic graduates who were being assisted by Nigeria's Directorate of Employment and the Federal Ministry of Agriculture to become agricultural entrepreneurs. Given its history and relative standing in the area, extension visits to Igede are not likely to have had the same value as they would in neighbouring villages. Yet, Igede requires agents' visits, and perhaps the more so, to sustain its pre-eminent position as a beacon of agricultural extension in the locality. In this regard, the zero response from Igede on extension visits might suggest problems with the availability of extension advice and assistance as well as direct access to these services by ordinary farmers elsewhere.

Other non-farm contacts included short drama sketches on such extension issues as pest control, cowpea production, profitability of fertilizer use, and production and uses of soyabeans. Fifteen such dramas were staged in 1985 and 1986 as an alternative to radio broadcasts.<sup>56</sup> Village wall blackboards were also introduced in 1984 'for disseminating agricultural messages among farmers' and were hung at central locations in select villages in 1984-86. In its first year, 60 blackboards were so displayed, but the number dropped to 40 in each of 1985 and 1986.<sup>57</sup> It is difficult to ascertain the effectiveness of

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<sup>56</sup> *Ibid.*, p. 10.

<sup>57</sup> *Ibid.*, p. 8.

messages on village blackboards or other similar media in a predominantly non-literate environment.

The project also instituted a secondary schools scheme similar to the Young Farmers' Clubs of the 1930s. At that time, the clubs constituted the colonial government's answer to youth unemployment and adult indifference to modern production techniques. Colonial officials had regarded them as 'a most valuable means of establishing a link between the school and the farm', given that they could encourage young school leavers to take up careers in agriculture.<sup>58</sup> The clubs were also described by C. F. Strickland, then Chief Registrar of Co-operative Societies, as 'cooperative societies of children' that could be employed to change parents' largely cynical attitudes to modern agriculture.<sup>59</sup>

The project's school scheme virtually resuscitated Young Farmers' Clubs, albeit without the overarching colonial context. According to Christensen, the scheme's objectives were as follows:

- (a) To attract young people to modern agriculture and thereby rejuvenate the ageing farming population in the [project] area.
- (b) To influence the teaching of agriculture in the schools by combining to a greater extent practical and theoretical training.
- (c) To contribute to the schools budget by income from direct production.
- (d) To reach farmers with new ideas on agriculture through their secondary school children.<sup>60</sup>

Ultimately, EAADP's school scheme was aimed at getting 'some of the 80,000 students leaving secondary schools in 1984 in Ondo State into either direct agricultural production or into related practical occupation in any of the jobs created by or arising as a consequence of the Project.'<sup>61</sup> From twelve in 1983, the number of participating schools

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<sup>58</sup> CSO 26/31073 NAI.

<sup>59</sup> CSO/26 26298/S.10/5 NAI. Memorandum dated 1 February 1934.

<sup>60</sup> Christensen, *Final Report*, p. 46 and p. 48.

<sup>61</sup> *Ibid.*, p. 48.

increased to eighteen in 1984 and reached 39 by 1986.<sup>62</sup> However, input loans granted to schools under the scheme were not repaid; hence it was discontinued.<sup>63</sup>

There is no evidence on the schools programme's impact on pupils' subsequent employment preferences, or indeed whether some pupils took more active interest in agriculture after leaving school. What is clear is that EAADP never really interested the teaching staff in the programme, in which case it was another example of ad-hoc mobilisation schemes which have characterised Nigerian agriculture since the 1970s. Moreover, students who did the bulk of the work received little if any compensation for their efforts. One reason for the lack of incentive to students could be that teachers regarded their (students') contributions as part of the weekly lesson in agriculture rather than career-linked practical training as EAADP had conceived it. But it is equally mistaken to assume that weekly classroom and hands-on lessons in agriculture in secondary schools are themselves sufficient to incline youths to take up careers in farming. On the contrary, Jibowo's survey of 215 students in 11 secondary schools in Oyo State has suggested remarkable exposure to agricultural science.<sup>64</sup> Yet, only 37% of children with farmer fathers were favourably disposed to agriculture as a career. Less than one-fifth of children with non-farmer fathers were similarly disposed.<sup>65</sup>

Patel has proposed a simple but plausible solution to the above problem. This is that farmland be allotted to student groups in such a way that each member would have an average plot of one square metre. Students, Patel suggests, should also be allowed a share of the crop from such plots as an incentive for individual effort. The Project Manager also recommended that the five best school leavers from each of the 18 participating schools (as at mid-1984) be offered a credit package to sustain a farm plan of between two and five hectares each. Whatever their merits, Patel and Christensen's

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<sup>62</sup> *Ibid.*

<sup>63</sup> Patel, 'Agriculture', p. 11.

<sup>64</sup> A. Adegboyega Jibowo, 'Dynamics of Teaching Agricultural Science: A Focus on Secondary Grammar Schools in Oyo State of Nigeria', *AJAS*, V, 2 (1978), pp. 7-14.

<sup>65</sup> *Ibid.*

recommendations have either not been attractive enough to project management in the post-1984 period or they have not survived the policy changes initiated in Ondo State in 1985. At the time of my fieldwork in 1992, a new fisheries programme, rather than crop production, was being promoted among secondary schools in Ondo State.

#### **6.4.1 Pamphlets, Radio and Television Programmes**

Finally, EAADP and ODSADEP printed pamphlets and made weekly broadcasts on state radio and television to put their message across to the population. One immediate advantage of these mass media is their potential to reach a wider audience of farmers and non-farmers than was possible by more direct methods. However, this considerable potential is often offset by a generalized lack of access by farmers to mass media. Thus while the print and electronic media may have helped to spread the gospel of farming to miscellaneous people who might have been less informed or not informed at all about modern farming practices, their impact on the target population is far from clear.

Extension pamphlets are good in themselves. As a classic example of the written word, pamphlets offer an impersonal mode of contact between project and population. Their content or messages can also be referred to time and again without loss of meaning or, possibly, relevance.<sup>66</sup> The usability of pamphlets among large populations is however predicated on the ability of that population to read and write, either in the vernacular or in some more general language. This fundamental pre-condition has been unrealisable in Ondo State, and elsewhere in and outside Nigeria, because of pervasive illiteracy among the rural farming population. By 1980-85, according to estimates published by the World Bank, the illiteracy rate averaged 57% each year among Nigerians aged 15 years and above; by 1987-92, illiteracy stood at 49% on average for the same group.<sup>67</sup>

These national averages most certainly understate the extent of illiteracy in rural areas. For example, Obibuaku's survey of six villages in present-day Oyo State in 1966

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<sup>66</sup> For general considerations, see Ram Krishan, *Agricultural Demonstration and Extension Communication* (1965), chp. 15.

<sup>67</sup> IBRD, *Social Indicators of Development 1994* (Baltimore and London, 1994), p. 259.



indicated a higher illiteracy level. Of 182 farmers surveyed, only 3% could read and write in English while 28% were literate in Yoruba.<sup>68</sup> 57% of the respondents' children were attending primary schools; 38% had completed primary education, while only 7% had completed secondary education.<sup>69</sup>

My own survey of farmers in and around Ayede suggests a higher literacy level. As Table 6.3 shows, 62% of respondents (n=161) had a minimum of primary education while 38% had no formal education at all. However, about half of respondents with education, or 33% of all respondents, had primary education only. Between the villages, the proportion of respondents without formal education ranges from a low of 27% at Ayede through 50% at Igede and Ilafon to a high of 70% at Imojo. Conversely,

**Table 6.3**  
**Distribution of Formal Education among Respondents, 1992**

Highest level of education	N <sup>o</sup> of responses	% of respondents			
		Igede	Ilafon	Imojo	Ayede
Primary	53	8.3	24.0	15.0	40.6
Part-secondary	12	8.3	12.0	5.0	6.6
Full secondary	13	-	4.0	-	11.3
Tertiary	14	16.7	4.0	5.0	9.4
Others <sup>a</sup>	9	16.7	4.0	5.0	4.7
None	62	50.0	52.0	70.0	27.4
Total %	-	100.0	100.0	100.0	100.0
N	163	12	25	20	106

Note: <sup>a</sup> Include agricultural/vocational.

Source: Author's field survey, 1992.

respondents with primary education only account for 8% of those at Igede; 15% at Imojo; 24% at Ilafon; and 40% at Ayede. In both respects, respondents in Ayede, the most 'urbanised' of the villages, appear better-off than those in other villages. Rural dwellers with higher levels of education thus appear to be concentrated in the more urbanised villages, suggesting that education is related to urbanisation even at the local level. The

<sup>68</sup> L. O. Obibuaku, 'An Analysis of Agricultural Extension Potentials in Selected Villages in the Western State of Nigeria', in Crouch and Chamala (eds.), *Extension*, p. 43.

<sup>69</sup> *Ibid.*, p. 44.

indications therefore are that agricultural extension has a considerable potential in Ayede area. The same is likely to be true of other parts of rural Ondo State. For greater effectiveness however, different extension mechanisms have to be employed to reflect the distribution of literacy among the rural population.

For example, illiteracy varies significantly with respondents' ages in Ayede area. The incidence of illiteracy is highest among respondents aged 46 and above, with 43% of those in the 46-55 age group and over 80% of those in the 56-65 and 65+ age groups having no formal education at all (see Table 6.4). In contrast, the proportion of younger respondents without any education range from 0% for those aged up to 25 to between 4% and 12% for respondents in the next two age groups. Functional literacy is likely to vary

**Table 6.4**  
**Pamphlet Accessibility by Respondents' Age Groups, 1992**

(1) Age groups (years)	(2) % of valid responses	(3) % with primary education only	(4) % with no education	(5) % with 'unhindered' access [100-(3+4)]
Up to 25	6.2	20.0	-	80.0
26-35	29.8	50.0	4.2	45.8
36-45	15.5	60.0	12.0	28.0
46-55	17.4	28.6	42.9	28.5
56-65	19.9	6.3	84.4	9.3
66 and over	11.2	11.1	88.9	-
<i>N</i>	161	46	60	55

Source: Author's field survey, 1992.

even more widely between respondents in upper and lower age-groups. Marsh and Coleman have shown in another context that eight years of schooling represents a threshold for a more favourable disposition to new farm techniques.<sup>70</sup> If Marsh and Coleman's threshold is adopted here, and account is taken of the effect of probable lack of practice on the sustainability of their reading and writing skills, respondents aged 46 and above could hardly be regarded as having 'unhindered' access to extension pamphlets. If their numbers are added to those without any formal education, it follows

<sup>70</sup> C. Paul March and A. Lee Coleman, 'The Relation of Farmer Characteristics to the Adoption of Recommended Farm Practices', *Rural Sociology*, XX, 3-4 (1955), p. 296.

that up to two-thirds of respondents who *need* propaganda most have had very little or no access to pamphlets.

Analysis of survey responses on extension media supports this view. As Table 6.5 shows, only 7% of 252 claims on access to mass media of extension related to pamphlets. Over 83% of this proportion was in Ayede, where pamphlet responses constituted only 8% of all mass media responses. The remaining 17% was in Igede, where it amounted to 16% of media responses. In Ilafon and Imojo, extension pamphlets attracted no positive response! Given that Ilafon and Imojo's respondents are representative of their villages, and that some of the respondents are educated, the lack of pamphlet responses in both villages must reflect uneven distribution of pamphlets between the survey villages. Even so, the utility of extension pamphlets among Ondo State's small-scale farmers is questionable.

**Table 6.5**  
**Respondent's Access to Extension Pamphlets, 1992 (by village)**

(1) Village	(2) N <sup>a</sup> of total responses <sup>a</sup>	(3) N <sup>a</sup> of pamphlet responses	(4) 3 as % of 2
Igede	18	3	16.0
Imojo	21	-	-
Ilafon	26	-	-
Ayede	107	15	8.0
Total	252	18	7.1

Note: <sup>a</sup> Multiple responses.

Source: Author's field survey, 1992.

Access to broadcast media is less constrained by literacy or the lack of it. To this extent, broadcast media are more flexible than pamphlets. For example, radio and TV programmes can be transmitted in the vernacular, employing as much local imagery as is possible.<sup>71</sup> In Western Nigeria, vernacular extension programmes on radio have included *Ayé àwọn àgbè* (Farmers' World) and *Àgbè àr'oko b'òdún dé* (the farmer goes to the farm and returns at the end of the year or on festive occasions). These had been

<sup>71</sup> Krishan, *Agricultural*, pp. 221-224; L. Obibuaku and G. Hursh, 'Effective Methods for Influencing Agricultural Modernisation Among Illiterate and Preliterate Communities', *BRES*, 11, 1 (1977).

broadcast variously on the Federally-controlled Radio Nigeria or on the regional radio and television networks, the Western Nigeria Broadcasting Corporation/Television, as the case might be. This tradition has been sustained by the Ondo State Radiovision Corporation, as the local radio and TV network was known in 1992. Since its advent in 1976, it has broadcast such farmer-based programmes as *L'ábé abà* (lit. 'under the shelter of the traditional farm house'), largely to mobilise farmers' support for government's agricultural programmes.

On its part EAADP had acquired mobile audio-visual equipment which ODSADEP duly inherited. With this mobile equipment and requisite processing accessories at base, both projects have often recorded radio and television programmes on location. Farmers' involvement in relevant broadcast programmes has therefore taken place in their (farmers') normal working circumstances. In the first quarter of 1992, for example, *Àgbè àr"oko b'òdún dé* was being broadcast on the local state radio network in the late morning every Wednesday. *Obalàgbè* ('the farmer is king', apparently because of his role in food production and in social sustenance) followed on the local TV frequency in early evenings. Each programme usually addressed a subject of current import for agricultural production and attempted to resolve problems likely to be faced by farmers at the time of broadcast.

However, access to extension programmes on electronic media by rural-dwelling farmers has been no less difficult than access to pamphlets or in relation to urban-based farmers. Farmer access to extension broadcasts has been influenced by two specific matters, namely, the distribution of receivers amongst farmers and the impact on programme scheduling of the urban orientation of broadcast media in Nigeria. The first relates to whether farmers own relevant receiving equipment themselves and therefore have direct access to such media and to extension programmes broadcast on them. Indirect access to extension programmes is also possible if broadcast receivers were owned by non-farming families, or if television viewing centres existed in rural villages for community viewing. Until recently, ownership of broadcast media in rural Nigeria has been very low. The determining factors have included a low income base, equally low purchasing power, as well as the lack of facilitating amenities, especially electricity. The situation has improved

over the years however: the consumer boom of the 1970s had meant that local markets were flooded with imported household electronics whose prices had been subsidised or depressed by the naira's over-valued exchange rate.

By the 1980s, therefore, the absence of radio transistors had ceased to be a characteristic of rural Ondo State, though TV sets remained few and far between. Apart from being more expensive generally, difficulties with power supply make television superfluous in rural areas; battery-powered sets are even more difficult to run. Once again, my survey findings provide broad support for the foregoing views. As Table 6.6 shows, 73% of all respondents (n=164) owned at least one broadcast receiver while 27% owned no broadcast receiver. About 40% of respondents in the former group owned radio receivers or radio-cassette players while an additional 3% of all respondents owned radio and television sets. 30% of all respondents owned all three media. As a whole, radio transistors seem well distributed between the villages.

**Table 6.6**  
**Distribution of Broadcast Receivers among Respondents, 1992**

Type of receiver	N <sup>o</sup> of responses	% of respondents			
		Igede	Imojo	Ilafon	Ayede
Radio/radio-cassette player	65	41.7	30.0	56.0	37.4
Radio and TV	5	8.3	-	4.0	2.8 <sup>a</sup>
Radio, cassette player, and TV	50	16.7	5.0	4.0	44.0
None	44	33.3	65.0	36.0	15.9
Total %	-	100.0	100.0	100.0	100.1 <sup>b</sup>
N	164	12	20	25	107

Note: <sup>a</sup> Include one respondent with television only. <sup>b</sup> Entries do not add up to 100 because of rounding.  
Source: Author's field survey, 1992.

To own a radio transistor or a television set is not quite the same as being willing and able to listen to or watch extension programmes. A second important factor in the use of electronic media for extension, therefore, is 'the extent to which their messages are written and programmed for rural audiences.'<sup>72</sup> Of particular importance is how extant programme schedules compare with the way the average farmer spends a normal working

<sup>72</sup> A. W. Van Den Ban and H. S. Hawkins, *Agricultural Extension* (Harlow, 1988), p. 132.

day; whether the two conflict, and if so, how the average rural farmer is likely to resolve the dilemma. In this regard, survey responses suggest that farmers make remarkable use of extension broadcasts. For example, 44% of respondents (n=156) claimed to listen to radio programmes; 2% claimed to watch television programmes while 37% said they own or have access to these broadcast media and to pamphlets. Just over half of respondents in Ilafon claimed to use extension media, compared with 75-89% at Igede, Imojo, and Ayede. As a whole, four-fifths of all respondents claimed to make use of mass extension media. Broadcast receivers seem therefore to be well distributed in Ayede area, and probably in much of rural Ondo State.

Nevertheless, programme scheduling has been far from favourable to farmers, as the mid-day time slot for *Àgbè àr'oko b'òdún dé* suggests. Except in off-season, on market days, festive or odd occasions, mid-day is an unlikely time of the day to find most farmers at home listening to radio or engaging in leisure. Mid-day almost always finds farmers in their farmsteads, at work or otherwise on break, usually taking shelter from the sun, resting their back, or taking their first meals for the day.<sup>73</sup>

It is of course possible for farmers to carry portable transistors with them to their farmsteads or to keep spare radio transistors in the farm for purposes such as the one under consideration. In general, such practice would be but a marginal step in the process of making *abà*, the traditional farm-house, more pleasant for those who live in the farms. In fact, very few farmers would go this far. For economic reasons at least, the idea of a spare transistor radio would appear ludicrous to most farmers in present-day Ondo State. Even if the practice did exist in the past, recent developments in transportation and in social conceptions of farming could only have constrained its growth.

For example, road development and increases in vehicular transport have generally reduced the duration of journeys to and from agricultural work, thus making it possible for farmers to commute daily between village and farm, including *oko egàn* or distant farmsteads. This factor of choice has perhaps combined with changing conceptions of

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<sup>73</sup> See, e.g., G. J. A. Ojo, 'Some Observations on Journey to Agricultural Work in Yorubaland, Southwestern Nigeria', *EcG*, 46, 3 (1970), p. 462; p. 464.

farming, especially in the wake of the 'disappearing peasantry' since the 1970s, to induce a possible decline in the number of farmers who routinely spend their weekdays in farmsteads and return to town or village only on weekends or on festive occasions. This might have increased access to radio or at least television programmes, but general interest in broadcast extension programmes cannot be assumed. As Sunday Adeniyi (a.k.a. Sunny Ade), a *juju* musician lamented in a 1982 album, *kò s'ágbẹ̀ mọ́ l'óko; ará oko ti da'rí wá'lé*: farms are now bereft of farmers; the farmers of yore have abandoned their farmland and taken up permanent residence in town, ostensibly to partake in non-agricultural commercial activities.

It is difficult, therefore, to say precisely if extension programmes broadcast on radio and TV ever get to large numbers of rural small-scale farmers. The problems are partly socio-economic, ranging from the extent to which broadcast media remain far from being generally accessible on account of the sheer absence of receivers to problems with support infrastructure, especially the supply of electricity, in rural areas. Key structural questions also remain: for example, whether media that are primarily suited to urban tastes and interests could be profitably employed to mobilise rural farmers for agricultural purposes.<sup>74</sup>

## **6.5 On-Farm Extension Mechanisms**

The single most important element in on-farm extension mechanisms in Ondo State in the 1980s has been the progressive farmers' scheme. EAADP and ODSADEP have between them implemented two watered-down variants of the scheme. The first is the contact farmers' scheme, embarked upon for local demonstration of the use of modern inputs. The second is the outgrowers' scheme, EAADP's answer to contract farming in seed multiplication. Both schemes are examined below.

### **6.5.1 The Contact Farmers' Scheme**

Contact or 'progressive' farmers' are individuals who are generally 'regarded by other

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<sup>74</sup> Ban and Hawkins, *Agricultural Extension*, pp. 129-132; K. N. Singh, 'The Need for a Communication Strategy for Rural Development', in Crouch and Chamala, *Extension*, pp. 22-24.

farmers as able and worthy of imitation' and on that account serve as focal points of extension activities in a locality.<sup>75</sup> In theory therefore, contact farmers are no more than intermediaries between farmers' groups and extension workers and 'should not only be the community's most progressive farmers, since neighbors usually regard these farmers as exceptional and tend not to attempt to imitate what they do.'<sup>76</sup> Indeed, they should be selected on the basis of criteria like social standing, representativeness, and commitment to farming. For example,

(a) they should proportionately represent the range of farm size...cropping patterns, and farming situations...found in the group...

(b) they should be practising, skilled farmers. Absentee landlords and people with a major occupation in addition to farming (like teachers, shopkeepers, businessmen, and politicians) should not be selected as contact farmers...

(c) they must be willing to consider the practices recommended and taught by the VEW [village extension worker], to adopt some of them on at least part of their land, and to let other farmers observe the practices. They should also be willing and able to explain to farmers what they did under the recommended practice.

(d) ...as far as size and composition of farmers' groups permit, [they] should come from different families...

(e) their farms should be dispersed throughout the group area.<sup>77</sup>

In practice, the contact farmers' scheme is feasible only as far as the practices they spearhead are desired by ordinary farmers. As Marsh and Coleman's survey of American farmers showed, imitation of leaders follows prior dispositions to new ideas in particular communities.<sup>78</sup> If 'the residents of a neighborhood place a high value on innovations...they will go to innovators for information; but...if the residents are resistant to innovations, the "leaders" whose advice is sought are unlikely to be innovators.'<sup>79</sup> It

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<sup>75</sup> Benor and Baxter, *Training*, p. 45.

<sup>76</sup> Benor, Harrison and Baxter, *Agricultural*, p. 27.

<sup>77</sup> Benor and Baxter, *Training*, p. 47.

<sup>78</sup> C. Paul Marsh and A. Lee Coleman, 'Farmers' Practice-Adoption Rates in Relation to Adoption rates of "Leaders"', *Rural Sociology*, XIX, 2 (1954), pp. 180-181.

<sup>79</sup> *Ibid.*



is likely, therefore, that the 'spread effect' of contact farmers will be more horizontal than vertical; the intensity of contact farmers' influence on ordinary farmers is also likely to vary between different farm practices and between communities.

The notion of contact farmers as *interlocutors valables* has existed in Nigeria under various guises since the 1880s. In 1887, Sir Alfred Maloney, a colonial superintendent, had founded a botanical garden in Lagos to promote the growing of economic plants by native farmers, but the colonial authorities sought to define a hierarchy of possible beneficiaries. Sir Maloney was expected, therefore, to dedicate the botanical garden

to the growth and culture of all kinds of useful trees, plants and herbs as well as to run a model kitchen garden...*to consider the apprenticeship of refugee [ex-slave] boys; the industrial education of sons of chiefs; sale of plants, or their gratuitous distribution under the authority, in writing, of the Governor, whenever of advantage to the public interest.*<sup>80</sup>

In the 1920s, Faulkner and Mackie had argued against the indiscriminate provision of extension advice and services to all farmers. They preferred a system which gave more intensive support to farmers with outstanding enthusiasm for new practices or with remarkable entrepreneurial spirit. According to Faulkner and Mackie, access to official advice must be restricted to

individuals who are remarkably ready to give a trial to a new method if they are approached in the right way- or indeed if they are not approached at all...[Since] others of the same tribe will follow one who succeeds, the [extension] worker can concentrate on helping effectively the *few specially enterprising men* whom he finds or, still better, who find him...<sup>81</sup>

The 1950s saw a policy shift in favour of large-scale farms.<sup>82</sup> As indicated in chapter 2, the period 1952-62 has been called the 'plantations decade' because over four-fifths

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<sup>80</sup> R. E. Dennett, 'Agricultural Progress in Nigeria', *JAS*, XVIII, LXXII (1919), pp. 266-267. Emphasis added.

<sup>81</sup> *Agriculture*, p. 79; p. 83; p. 84. Emphasis added.

<sup>82</sup> See e.g., Nigeria, *Agricultural Policy for the Western Region* (Ibadan, 1952), p. 6; p. 12.

of 44 plantations in southern Nigeria in the 1960s were established during the decade.<sup>83</sup> By the 1960s, progressive farming had become synonymous with large farms and capital intensive agriculture, while 'non-progressive farming' was associated with the traditional slash-and-burn practices of most Nigerian farmers.

The progressive farmers' scheme has been more pronounced since the advent of ADPs in the 1970s. The general practice also has been to select as contact farmers individuals who are outstanding socially or in business. While this may reflect official preference for individuals who are willing to assume the agro-economic risks associated with new practices, it also suggests that key selection criteria are not always widely distributed among Nigeria's rural farmers. Some criteria, like access to project officials or to bank credit, are also cumulative, such that an initial advantage creates further advantages and invariably strengthens existing inequalities. In Nigeria, therefore, contact farmers are probably too unrepresentative of the farming population to expect ordinary farmers to imitate their techniques. In Tina Wallace's words, contact farmers are often

a minority of...farmers with sufficient land to invest in a plough or tractor, or who can buy extra labour. The bulk of farmers are inevitably ignored because their landholdings are too small and they are too poor to buy the new inputs and undertake the risks involved to convert themselves into viable business farmers.<sup>84</sup>

The progressive farmers' scheme has thus helped to create a vicious circle: poor farmers cannot obtain substantial extension advice and assistance without first becoming progressive; yet, the primary constraint to attaining the 'progressive' status has been their lack of economic well-being! The situation has not been helped by the apparent preference on the part of extension staff to recruit progressive farmers laterally rather than by vertical expansion of their ranks with non-progressive farmers.<sup>85</sup> The proposition to be tested here, therefore, is that the progressive farmers scheme has been

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<sup>83</sup> R. K. Udo, 'Sixty Years of Plantation Agriculture in Southern Nigeria: 1902-1962', *EcG*, 41, 4 (1965), p. 364.

<sup>84</sup> Wallace, 'The Challenge of Food: Nigeria's Approach to Agriculture 1975-80', *CJAS*, 15, 2 (1981), p. 248.

<sup>85</sup> B. Beckman, 'Bakolori: Peasantry versus State and Capital', *NJPS*, 4, 1/2 (1985).

a class project; an economically wasteful concentration of publicly-funded benefits on privileged elements who, because their primary interests lay outside agricultural production, could neither provide economic value for the public expense on them nor sufficient leadership for small scale farmers.<sup>86</sup>

In EAADP as well as ODSADEP, contact farmers provided demonstration plots, small tracts of cultivated land of about 0.1 acre each on farmland owned and cultivated by contact farmers themselves but planted with improved seeds and given improved treatment, including fertilizer, by extension agents. Demonstration plots therefore stand in contrast to the rest of the farm and to adjacent farms, enabling members of the demonstration group and non-members alike to distinguish between traditional and modern cultural practices. At harvest, the yield from demonstration plots and other parts of the farm are compared to make two related points. The first is experimental: to identify limiting factor(s) in traditional agriculture, and to confirm the view that farmers can improve the yield potential of their land with technical change or factor substitution.<sup>87</sup> The second point is structural, namely, that with technological change, commercial agriculture is possible and profitable even among small scale farmers. In order to make for intensive farmer contact, each demonstration plot was expected to cater directly for small groups of 10-15 farmers. These chosen few were in turn expected to sell the new ideas picked up during group meetings to their friends and relations.

There are two sets of official figures on EAADP and ODSADEP's contact farmers scheme. The first, presented in Table 6.7, shows the number of EAADP's contact farmers from 1982-86 and was published alongside other data in project completion reports. The second set of figures in Table 6.8 extends the first by providing operational information on EAADP and ODSADEP up to 1991 and was circulated in 1992. However, the sets differ so widely that they cannot support a credible comparison of project operations for the years on which they overlap. The figures indicate, nonetheless,

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<sup>86</sup> Wallace, 'Challenge', p. 249; Mabogunje, 'Funtua', p. 202. Cf. Christopher Leo, 'The Failure of the "Progressive Farmer" in Kenya's Million-Acre Settlement Scheme', *JMAS*, 16, 4 (1978).

<sup>87</sup> Christensen, *Final Report*, p. 36.

that neither EAADP nor ODSADEP has been able to sustain the interest of farmers selected for the scheme.

Table 6.7 suggests, for example, that the initial response to the scheme, measured by the high number of contact farmers, was short-lived. In 1982, EAADP's contact farmers numbered over 2,000 but declined by 69% to just over 600 one year later (column 3), most probably because popular expectations about project benefits had been high and largely unfulfilled. In 1984, the ranks of contact farmers increased by 8% over 1983 figures, but this was temporary. By 1985, the number of EAADP's contact farmers had slipped by 30% to 480; and by a further 33% to just over 300 in 1986. If it is assumed that contact farmers had one demonstration plot each, and the estimated number of farming families in the project area is held constant, two approximate measures of access to demonstration plots by Ekiti-Akoko farming families can be computed.

**Table 6.7**  
**EAADP's Contact Farmers, 1982-86**

(1) Year	(2) N <sup>o</sup> of contact farmers	(3) % change	(4) Spread ratio <sup>a</sup>	(5) Index (1:15 = 100)
1982	2,030	-	37	247
1983	636	-68.7	119	793
1984	686	7.9	110	733
1985	480	-30.0	158	1,053
1986	324	-32.5	233	1,553

Note: <sup>a</sup> Average estimated number of farming families served by a contact farmer. APMEPU's estimate of 75,548 farming families for project area used to compute ratio.

Sources: Col. 2- Patel, 'Agriculture and Technical Services', p. 9. Cols. 3, 4 and 5 computed.

The first, which I call the spread ratio, indicates the average number of farming families served by each contact farmer/demonstration plot. It is obtained simply by dividing the total estimated number of farming families by the number of contact farmers in each year (column 4 of Table 6.7). The second measure in column 5 of Table 6.7 is an index of access to demonstration plots and compares the spread ratio for each year with the expected target of 10-15 farmers per demonstration plot, thereby indicating EAADP's performance on its implied targets on demonstration. This index was obtained by dividing each year's spread ratio by the upper limit of 15 farmers to a demonstration group.

On both scores, the contact farmers' scheme has measured rather poorly. For example, EAADP attained the best estimated spread ratio in 1982, the first year of the scheme, though this was still more than double the project target of one contact group to 15 farmers. After 1983, the spread ratio and the index of access increased dramatically, from 119 and 793 respectively in that year to peaks of 233 and 1,553 in 1986.

Table 6.8 suggests a slightly more optimistic picture of CFS under both projects. Unlike in Table 6.7 where the number of contact farmers fell to as low as 320 in 1986, the least row entry for 1986 in Table 6.8 is about 3,100, yet it related to EAADP rather than ODSADEP. The number of contact farmers also rose to over 5,000 after 1989, presumably on account of the expansion of EAADP's operations to other parts of the state.

**Table 6.8**  
**Contact Farmers in EAADP and ODSADEP, 1985-91**

(1) Year	(2) N <sup>o</sup> of contact farmers	(3) % change	(4) Spread ratio	(5) Index (1:15 = 100)
1985	4,824	-	16	106
1986	3,268	-32.3	23	153
1987	3,081	-5.7	25	167
1988	3,797	23.2	20	133
1989	5,700	50.1	72	480
1990	5,600	-1.8	74	493
1991 <sup>a</sup>	13,200	135.7	31	207

Note: <sup>a</sup> January-June only.

Sources: Col. 2- ODSADEP, 'Ondo State Implementation Strategy', Table 3, p. 6; Cols. 3, 4 and 5 computed. Entries in col. 4 computed with project area's estimated 75,548 farming families (1985-88) and 411,840 thereafter. Latter figure is from Idachaba, *Rural Infrastructures*, p. 702.

Higher figures in Table 6.8 however mean very little in relative terms. For example, the 1989 figure of 5,700 contact farmers amounts to less than a 20% increase over corresponding figure for 1985. If pre-project population estimates for Ondo State are held constant, the change-over from EAADP to ODSADEP would suggest a 445% increase in the number of farming families to 412,000. This means that an average farming family had only one in twenty-five chances of being part of a demonstration or contact group, or perhaps, that 60-70% of farming families may not have been part of a contact group.

Taking this into account, what columns 4 and 5 of Table 6.8 suggest is that average access to demonstration plots has been declining almost steadily since 1985. With the advent of ODSADEP in 1989, access to demonstration plots and/or groups most probably worsened by up to 300%. The difference between data in Table 6.7 and Table 6.8 is less about whether access to demonstration plots or contact groups did decline than about the rate of their deterioration.

There are no disaggregated data on the location of contact farmers or on demonstration plots. It is not possible, therefore, to assess the distribution of contact farmers by local government areas and to match my measures of access with the actual distribution of farming families between contact farmers and/or demonstration plots. My survey data suggest, however, that contact farmers as well as demonstration plots are few and far between in rural areas. As Table 6.9 shows, only six or 4.1% of respondents (n=145) claimed to be contact farmers. An additional 2% of respondents claimed to belong to one

**Table 6.9**  
**Extension Contact with Respondents, 1992 (by village)**

Form of contact	N <sup>a</sup> of responses	Distribution of responses (%)			
		Igede	Imojo	Ilafon	Ayede
Contact farmer	6	-	-	-	5.8
Extension group	2	-	-	-	1.9
Similar (i.e. unofficial) group	1	-	6.7	-	-
Household never contacted	2	50.0	6.7	-	-
Extension not required	15	50.0	26.7	29.2	2.9
No contact	117	-	60.0	62.5	89.4
Other	2	-	-	8.3	-
Total %	-	100.0	100.1 <sup>a</sup>	100.0	100.0
<i>N</i>	145	2	15	24	104

Note: <sup>a</sup> Entries do not add up to 100 because of rounding.

Source: Author's field survey, 1992.

form or another of extension/demonstration groups. A tiny 1.2% stated that their households were not contacted, while 10.3% said they did not require extension, apparently because they were satisfied with their socio-technical conditions, or because there were no incentives to change those circumstances.

This leaves four-fifths of respondents claiming no direct contact whatsoever with project extension. As usual, the incidence of these attributes differ between villages. All contact farmer-respondents came from Ayede, where a massive 89% of respondents also claimed not to have had any direct contact with extension. About one-third of respondents from Imojo and Ilafon claimed they did not require extension, while two-fifths had no direct contact in either village. It seems, therefore, that contact farmers were likely to be selected from among those in the more urbanised villages, where economic opportunities are more extensive and more diverse than in the more rural villages, and there are more progressive farmers in the first place.

Table 6.10 suggests much the same inferences with regard to respondents' visits or lack of visits to demonstration plots. Igede has been excluded here because it is itself a huge demonstration plot and also because the single valid response from Igede was insignificant statistically. Of the remaining 142 respondents, 8% claimed to attend demonstration meetings regularly, while about 5% claimed to attend irregularly. About 12% claimed not to have been informed about such meetings, while a remarkable 76% claimed there were no demonstration plots at all, suggesting they were not aware of the existence of such plots.

**Table 6.10**  
**Respondents' Visits to Demonstration Plots, 1992 (by village)**

Frequency of visit	N <sup>o</sup> of responses	Distribution of responses (%)		
		Imojo	Ilafon	Ayede
Regular	11	7.7	8.3	7.7
Irregular	5	-	12.9	1.9
Not informed	17	23.1	33.3	5.8
None available	107	69.2	41.7	84.6
Other	1	-	4.2	-
Total %	-	100.0	100.4 <sup>a</sup>	100.0
N	141	13	24	104

Note: <sup>a</sup> Entries do not add up to 100 because of rounding.

Source: Author's field survey, 1992.

Respondents who claimed to have attended demonstration meetings regularly averaged 8% and were evenly distributed between Imojo, Ilafon and Ayede. A remarkable 13%

of respondents from Ilafon claimed irregular attendance at demonstration meetings while another 33% claimed not to have had information. Corresponding figures for Ayede are about 2% and 6% respectively; No respondent from Imojo claimed irregular attendance, while 23% claimed ignorance. Finally, the proportion of respondents who believed that demonstration plots did not exist in their villages ranged from 42% for Ilafon through 69% and 85% for Imojo and Ayede respectively.

In sum, two points are suggested by the foregoing. The first is that contact farmers are likely to have been concentrated in urban centres with wider economic opportunities, more so since commercial success has been an explicit or implied condition for individual eligibility. Secondly, the assumption that small-scale farmers would follow in the footsteps of contact farmers cannot be realised where contact farmers, demonstration plots, or both did not exist in good numbers or not at all. As Christensen remarked, 'technology does not diffuse very much from one category of farmers to another [but]...does occur among farmers belonging to the same category.'<sup>88</sup>

### 6.5.2 Outgrowers' Scheme

This sub-section describes EAADP's experiment with the outgrowers' scheme, under which selected farmers grew seeds independently (or 'out') of project farms to supplement project output.<sup>89</sup> Outgrowing therefore refers to arrangements by which selected farmers or outgrowers are contracted to produce seeds with substantial assistance, such as credit and technical assistance, from a project or end-user of farm produce.

In return for such assistance, outgrowers undertake to deliver part or all of their annual harvest of seeds to the project at discounted prices determined by the project or at prevailing market prices less the value of assistance received by each outgrower. Like contract farming,<sup>90</sup> outgrowing constitutes a quid pro quo of sorts. The outgrowers

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<sup>88</sup> *Ibid.*, p. 41.

<sup>89</sup> Cf. Mohammed Halfani and Jonathan Barker, 'Agribusiness and Agrarian Change', in J. Barker (ed.), *The Politics of Agriculture in Tropical Africa* (Beverly Hills, 1984), p. 49.

<sup>90</sup> Contract farming is as yet unknown in Ondo State. For an example in neighbouring Oyo State, see



involved have preferred access to inputs, including seeds and fertilizer; cash to procure labour with; technical advice; and in some cases, guaranteed minimum prices for their crops. As such, farmers could almost always remain in production so long as demand exists for the seeds that they produce and regardless of annual harvest-related changes in their socio-economic circumstances. The project is in turn assured of ready supply of the crop(s) for its own use and is often in a position to influence the prices of the crop(s) on the local market.

EAADP's outgrowers' scheme had at least three specific objectives. The first was to increase the local supply of HYV seeds from parent stock obtained from three main sources, namely Nigeria's national seed service, Ondo State's seed multiplication service, and EAADP's own seed processing plant. The latter had a processing capacity of 1,500 tonnes of seed per season if it ran a single shift five-day week and was acquired at a cost of Danish *Kroner* 2.52 million.

The second objective was to create cost-effective seed multiplication centres and thereby improve local farmers' access to HYV seeds. The potential for cheaper seeds derives partly from outgrowers' capacity to operate more informally and with lower overhead costs than do government seed multiplication centres or project farms. Outgrowers could also multiply improved seeds under conditions closer to those faced by ordinary farmers, thereby facilitating local seed domestication. Since cheaper HYV seeds make adoption easier by a small but possibly significant step, improved seed varieties could become available to increasing numbers of farmers through outgrowers, and could ultimately substitute older seed varieties. Finally, the scheme sought to take seed multiplication beyond state or quasi-state farms and encourage end-users of improved seeds to participate in the seed multiplication process. To this extent, outgrowing signalled the partial privatisation of seed multiplication in Nigeria.

The project experimented with outgrowing in 1984 to supplement its own direct seed multiplication efforts. That experiment involved 39 outgrowers, most of them probably

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D. A. Oyeleye, 'Tobacco Cultivation in Oyo Division, Western Nigeria', *NGJ*, 14, 2 (1971), pp. 165-184.

contact farmers or businessmen-farmers who would be normally eligible for contact farmer status. From a list of ten outgrowers obtained by me, one was identified as a well-known photographer; another was a traditional ruler, while a third was a registered firm with interests in agribusiness. In effect, therefore, the scheme effectively concentrated a large proportion of project credit on a very small number of clients. I shall return to this point shortly.

Outgrowers multiplied seeds for five main food crops, namely maize, rice, cassava, cowpea, and soyabean. The available data do not indicate whether output per hectare differed between EAADP and outgrowers. What is certain is that outgrowers achieved 90-100% of their planting targets for maize, rice, and cowpea (see Table 6.11). At 8% and 23% of planting targets respectively, outgrowers' output was less remarkable with respect to soyabeans and cassava. Still, outgrowers' 23% completion rate for cassava was

**Table 6.11**  
**Seed Multiplication by EAADP Outgrowers, 1984**

(1) Crop	(2) Farm size (ha)			(3) Output	
	(2a) Target	(2b) Actual	(2c) b as % of a	(3a) Total yield (tonne) <sup>a</sup>	(3b) Land productivity (tonne/ha)
Maize	133.5	126.0	94.7	109.0	0.865
Rice	55.0	50.0	90.9	22.2	0.444
Cassava	15.0	3.5	23.3	700.0	-
Cowpea	10.0	10.0	100.0	1.05	0.105
Soyabean	60.0	5.0	8.3	7.48	0.374
Total	273.5	194.5	71.1	-	-

Notes: <sup>a</sup> Cassava output is measured in bundles of stems, each of which could provide 150-200 seed-cuttings.  
Source: EAADP, *Internal Completion Report*, p. 59.

higher than EAADP's 15%. In turn, the project returned a 660% completion rate on soyabeans. Soyabean is however newly introduced into the project area; hence, in relation to say, cassava, soyabeans had little exchange or even use value to local farming families. Outgrowers' performance in meeting production targets for both crops may well reflect the local demand and supply situations for each. On the whole, outgrowers completion rate amounted to 71%, compared to EAADP's remarkable 420%.

The foregoing picture could be misleading, however. In real terms, outgrowers' production targets were low in relation to resources at their disposal. As Table 6.12 shows, target farm size per outgrower ranged from 0.26 ha. for cowpea to 3.4 ha. for maize, while their actual average cultivated land ranged from 0.13 ha. to 3.2 ha. for soyabean and maize respectively. If it is assumed that the average outgrower grew seeds for all five crops and maintained separate plots for each, the target farm size per outgrower would have been 7.0 ha., while actual farms would have averaged 5.1 ha. Actual output per outgrower averaged 100-600 kg. for cowpea, soyabean, and maize, about 3 tonnes for rice, and 18 bundles for cassava. This outcome is not too remarkable and would most probably have been achieved by ordinary farmers if project support for outgrowers was extended to them. Land productivity was equally unimpressive: outgrowers' 10% aggregate increase in maize yield per hectare over pre-project estimates was offset by a 44% decline in corresponding figures for rice.

**Table 6.12**  
**Farm Size and Output per EAADP Outgrower, 1984**

(1) Crop	(2) Farm size (ha.)		(3) Output (tonne) <sup>a</sup>
	(2a) Target	(2b) Actual	
Maize	3.4	3.2	2.8
Rice	1.4	1.4	0.6
Cassava	0.4	0.1	18.0
Cowpea	0.3	0.3	0.1
Soyabean	1.5	0.1	0.2
Total	7.0	5.1	-

Notes: <sup>a</sup> Cassava output is measured in bundles of stems, from which 150-200 seed-cuttings could be obtained.

Source: Computed from Table 6.11.

A clearer picture of the opportunity costs to the project of outgrowing could be obtained by comparing EAADP's credit disbursements to outgrowers with that available to other farmers who received project credit. Table 6.13 presents comparative information on project credit to outgrowers and non-outgrowers alike and suggests clearly that outgrowers were favoured over and above ordinary farmers. For example, outgrowers accounted for about 42% of project credit (total N243,800) disbursed to all farmers in 1984. An average farmer's N377 in project credit was only 14.4% or less than one-fifth

of the N2,610 available to an outgrower. Outgrower's relative advantage increased even further with the disaggregation by type of credit. An average crop farmer's N177 in project credit thus amounted to 7% of that available to an average outgrower. Even a poultry farmer, who was still better placed than arable crop grower, obtained about 73% of the sum available to an average outgrower. Put differently, credit granted to the outgrower was 1380% over and above that of the arable crop farmer and 37% higher than that of the poultry farmer. As a whole, the average outgrower was about 600 times better-off than an average farmer who obtained project credit in 1984. In effect, 42% of total credit disbursed by the project in 1984 was cornered by 6% of beneficiaries, or by 0.05% of families that were technically eligible for credit.

**Table 6.13**  
**Project Credit to Outgrowers, 1984 (current *Naira*)**

(1) Description	(2) All Categories	(3) Outgrowers	(4) 3 as % of 2
Value of credit	243,833.25	101,783.00	41.7
N <sup>o</sup> of beneficiaries	648	39	6.0
Average value of each loan	376.29	2,609.82	693.6
Average crop credit	176.60	2,609.82	1,477.8
Average poultry credit	1,901.75	2,609.82	137.2

Computed from: EAADP, 'Brief on EAADP, 1982-May 1986', Appendix II.

Finally, the outgrowers refused to deliver their harvest to EAADP as originally agreed. The official reason for this development, that EAADP offered prices that were well below on-going rates in the open market, could itself be attributed to a number of factors. First, grain production by outgrowers turned out to be more expensive than projected. According to Christensen's estimates, rice and maize produced by outgrowers was about 80% more expensive to grow than grains produced by manual or mechanical means while production costs for cowpea and soyabean were lower or the same.<sup>91</sup> Seed prices could have been higher still if outgrowers had delivered their harvest to EAADP and it had added a margin to cover additional costs on transportation, storage and perhaps handling. It is not possible to say whether EAADP was opposed to this.

<sup>91</sup> Christensen, *Final Report*, p. 51.

Two points are clear, however. First, in theory, seeds were obtainable from official sources, namely the national seed service and Ondo State's seed multiplication project. Given the implicit subsidies on public sector goods at the time, EAADP could not possibly offer competitive prices for outgrowers' seeds. Officials would most certainly have rejected the payment to outgrowers of a premium above prevailing market prices (Christensen subsequently estimated this at 50%) to get them to deliver their harvest to the project. Second, local demand for improved seeds seemed high enough that outgrowers successfully sold their seed output directly to farmers. In doing so, the outgrowers reneged on their pledge to deliver their harvest to EAADP, capturing the economic rent on their subsidized inputs and heightening the concentration of project benefits in the hands of a few privileged farmers. But the private sale also enabled them to achieve one of the scheme's specific goals, namely, to liberalise seed multiplication and distribution.

In sum, the outgrowers scheme pointed up the potential for a private market in improved seeds and has certainly facilitated the diffusion of HYV seeds among Ekiti-Akoko farmers. But it turned out to be a relatively expensive mode of seed multiplication. Moreover, the refusal by outgrowers to hand in their harvest severely embarrassed the project management. The scheme was abandoned after 1984.

## **6.6 Conclusion**

Agricultural extension has been conceived in this chapter both as method and as process. As a method, extension defines approaches adopted to realise specific agricultural objectives. As a process, extension points to conflict of values often occasioned by the promotion of modern production techniques in essentially traditional society. Nigeria has experienced both forms since the late nineteenth century, though officials have been consistent in seeking to promote commercial production among small scale farmers.

Ekiti-Akoko ADP and ODSADEP have pursued similar objectives and therefore offered very little new experience. Since irrigation dams and farm settlements, the 'big ideas' in EAADP's programme, never really took off, both projects have had to activate well-known extension mechanisms against the background of the successes and failures of

previous programmes as well as changes in the wider socio-economic environment. The programmes have been constrained, therefore, by difficulties associated with government programmes generally and by ambivalence founded on farmers' experience of failed expectations from previous programmes.

Poor farmer response does not however suggest that Ondo State's farmers are not interested in modern production techniques. On the contrary, the evidence presented above suggested clearly that rural attitudes to modern extension techniques are changing slowly but surely. Chapter 5 has also suggested the increasing market orientation of production even at the small-scale level. However, three long-standing questions need to be addressed. The first is the suitability of urban-inclined messages and media, while the second concerns the arrogance of extension officials who have seen and still see themselves as enlightened leaders of 'backward people'. This attitude laid beneath the relatively hostile reaction by local officials to DARUDEC's decision to employ as village agents people with little formal education but hands-on farming experience, more so since no evidence has been provided to justify the link between that experiment and EAADP's lack-lustre performance.

The third question is the unrealistic assumption that peasant farmers would be inclined to adopt new techniques once businessmen-farmers or even leading peasants have done the same. As the analysis showed, EAADP's progressive farmers' scheme has indicated enormous potential for a private market in seed production and distribution. In general, however, the scheme has been little more than a mode of distributing state subsidies directly or indirectly to well-off segments of the population. As many scholars have argued, agricultural production would benefit more if the funds channelled to middle-ranking businessmen-farmers were to be directed to small-scale farmers; the latter would most certainly make do with smaller sums each (either in cash or kind) and are less likely to divert the funds to non-productive ends.

Ekiti-Akoko did experiment with the training and visit system, an organisational framework based on Indian experience and supported by the World Bank. The experiment was far from successful, however, for at least two reasons. First, training and visit

seemed to have been adopted as part of the project package, with minimum considerations of contextual circumstances that could make or mar the model. A review of Somalia's experience has suggested that T&VS is externally oriented, and to that extent, difficult to replicate or sustain in resource-poor countries.<sup>92</sup> While Nigeria might seem better-off relatively, the 1980s have shown the limits of public funding even for basic government services. Above all, T&VS seemed to have been incorporated into Ekiti-Akoko's programme as part of the project package rather than because of prior evidence of its successes in similar circumstances, and most certainly without addressing the question of why previous organisational approaches had failed to deliver expected results. In any case, the project's romance with T&V did not improve the average farming family's chance of being seen by extension officers. On the contrary, that potential declined rather sharply after the commencement of project operations.

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<sup>92</sup> John Mullen, 'Training and Visit System in Somalia: Contradictions and Anomalies', *JID*, 1, 1 (1989), pp. 145-167.

## Chapter 7

### Crop and Livestock Production

#### 7.1 Introduction

This chapter appraises EAADP's version of the seed-fertilizer (or green) revolution. Three distinct phases could be discerned in the green revolution (or GR) debate on Asia and Latin American countries. Initially, GR was remarked in the literature for factor combinations which had increased (or could increase) crop output and land productivity with constant, or nearly constant, returns to scale.<sup>1</sup> According to Ahmad,

[t]he Green Revolution...implies the judicious use of HYV and fertilisers in combination with water, labour and other inputs, together with improved techniques of production and farm management, culminating in considerably higher levels of production. So long as these ingredients are available to farmers, *it is of little importance for the desired result whether these farmers operate large or small-sized holdings* [italics added].<sup>2</sup>

Research conducted in the 1970s showed, however, that *actual* results differed from the foregoing, and that GR ultimately favoured larger farmers who could afford the capital costs of equipment, especially tractors and pumps.<sup>3</sup> The revised view, therefore, was that GR was inherently skewed against small, cash-poor farmers and to this extent deepened existing social inequalities. By the 1980s, a third strand of debate had emerged, namely, that the inequalities indicated by earlier GR research had been transitional rather than permanent. In the long term, so the argument went, GR-induced inequality would disappear.<sup>4</sup> Indeed, as a geneticist's dream come true, GR could not itself encourage

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<sup>1</sup> Vernon W. Ruttan and Hans P. Binswanger, 'Induced Innovation and the Green Revolution', in Hans P. Binswanger, V. W. Ruttan with others, *Induced Innovation: Technology, Institutions, and Development* (Baltimore and London, 1978), pp. 358-408; Michel Cépède, 'The Green Revolution and Employment', *ILR*, 105, 1 (1972), pp. 1-8.

<sup>2</sup> Zubeida Ahmad, 'The Social and Economic Implications of the Green Revolution in Asia', *ILR*, 105, 1 (1972), p. 10.

<sup>3</sup> Keith Griffin, *The Political Economy of Agrarian Development* (1979); T. J. Byres, 'The Green Revolution's Second Phase', *JPS*, 7, 2 (1980), pp. 245-250.

<sup>4</sup> For a detailed review, see Edmund K. Oasa, 'The Political Economy of International Agricultural Research: A Review of the CGIAR's Response to Criticisms of the "Green Revolution"', in Bernhard Glaeser (ed.), *The Green Revolution Revisited* (1987), pp. 13-55.



rural social differentiation. But genetic engineering is one small bit in a complex real-life picture. Increases in output and productivity from GR have been remarkable, but they make better sense in the context of wider socio-structural variables, such as employment, incomes, access to nutritious food, and eco-balance. On these and the political-structural consequences of technology-induced change, GR's record has been less unambiguous or, in some cases, nearly euphoric.<sup>5</sup>

The green revolution has expanded slowly or been delayed in Sub-Saharan Africa - in spite of its outstanding successes in Asia and Latin America and Africa's agricultural crisis since the 1970s.<sup>6</sup> One general reason is that the typical African country's factor endowments, especially man-land ratios, do not encourage the rapid spread of GR-type farming. Progress has been faster, however, in countries with settler populations (e.g. Kenya and Zimbabwe),<sup>7</sup> or where private property in land and intensification have proceeded further (e.g. Malawi),<sup>8</sup> than in say, Nigeria, where rain-fed agriculture and customary tenure patterns still predominate. Even within Nigeria, attitudes to intensification have differed significantly between closely-settled areas in the north and south-east on the one hand, and the southwest on the other. The reasons vary and have moved back and forth between population density and land productivity to rules governing access to land.<sup>9</sup>

Since the 1920s, extension workers in Nigeria have emphasised the need to supplement

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<sup>5</sup> See, e.g., John M. Cohen, 'Effects of Green Revolution Strategies on Tenants and Small-scale Landowners in the Chilalo Region of Ethiopia', *JDA*, 9, 3 (1975), pp. 335-358; Michael Lipton with Richard Longhurst, *New Seeds Poor People* (1989); Pierre Spitz, 'The Green Revolution Re-examined in India', pp. 56-75; and Ignacy Sachs, 'Towards a Second Green Revolution?', in Glaeser, *Green Revolution*, pp. 193-198; and Vandana Shiva, *The Violence of the Green Revolution* (1991).

<sup>6</sup> Peter Lawrence, 'The Political Economy of the "Green Revolution" in Africa', *ROAPE*, 42 (1988), pp. 59-75.

<sup>7</sup> Robert Bates, *Beyond the Miracle of the Market* (Cambridge, 1989); Carl Eicher, 'Zimbabwe's Maize-Based Green Revolution: Preconditions for Replication', *WD*, 23, 5 (1995), pp. 805-818.

<sup>8</sup> Melinda Smale, '"Maize is Life": Malawi's Delayed Green Revolution', *WD*, 23, 5 (1995), pp. 819-831.

<sup>9</sup> See relevant contributions in B. L. Turner II, Goran Hyden, and Robert W. Kates (eds.), *Population Growth and Agricultural Change in Africa* (Gainesville, 1993).

soil nutrients with green manure and animal droppings to increase output and productivity.<sup>10</sup> But the impetus for a full-blown campaign came with independence. The FAO had argued in the 1960s, for instance, that chemical fertilizer offered self-evident advantages to Nigeria's small farmers. According to the FAO,

...response from fertilizer is usually strikingly visual- the difference in growth, colour of the plant, and size of the crop or fruit are evident to the eye of even the untrained observer. Secondly, fertilizer is...tangible. The farmer can see it, handle it, and know when he has applied it. Another advantage is that the farmer gets relatively quick returns from the use of fertilizer, especially on annual crops. He can put the fertilizer on his crops and in a few months he can harvest and measure the increased production. Yet the capital required is much less than for many other improvements that may be desirable, e.g. the provision of animal or mechanical power or irrigation water.<sup>11</sup>

The green revolution made its debut in Nigeria's public imagination in the early 1980s, when the Federal Government embarked on an ambitious programme to attain food self-sufficiency with GR-type technology.<sup>12</sup> Government's underlying assumptions were shared by Jen Christensen, EAADP's first project manager, who regarded the supply and application of high-yielding variety (HYV) seeds and fertilizer as the limiting factors in small scale food production in the Ekiti-Akoko area.<sup>13</sup> It is essential therefore to consider the place of HYV seeds and complementary inputs in EAADP's agricultural operations.

Two analytical questions are addressed in this chapter. The first is to determine small farmer responses to HYV seeds, fertilizer, and chemicals in the project area. A related task is to examine farmer responses to the project's poultry development programme. The

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<sup>10</sup> O. T. Faulkner and J. R. Mackie, *West African Agriculture* (Cambridge, 1933), p. 50f; pp. 64-71.

<sup>11</sup> FAO, *Agricultural Development in Nigeria 1965-80* (Rome, 1966), p. 193.

<sup>12</sup> Jonathan Derrick, 'The Green Peril', *West Africa*, 21 April 1986, pp. 829-831; P. L. Arya, 'The Green Hope', *ibid.*, 23 June 1986, pp. 1315-1316; Olajire Bamisaye, 'The Crisis of Green Revolution Programme in Nigeria: The Need for a Rural Development Policy' in Ajibade Ogunjumo *et. al.* (eds.), *Nigeria's Economic Recovery Strategies* (Ile-Ife, 1988), pp. 12-27; and Francis Idachaba, 'The Political Economy of Nigeria's Green Revolution Programme', in NES, *The Nigerian Economy* (Ibadan?, 1986), pp. 87-110.

<sup>13</sup> Jens Christensen, *Ekiti-Akoko Agricultural Development Project Final Report* (Ikole-Ekiti, 1984), p. 54.

second is to explain the diffusion rate in terms of competing rationalities between the project and its intended beneficiaries. Success and failure in the project's production objectives are thus explained by isolating aspects of farmers' socio-economic circumstances that seemed to have been assumed away or otherwise ignored in the design of the programme.

The main body of the chapter is divided into five sections. The next two sections examine crop production and land productivity on the basis of available project data as well as aggregate information. In section four, I discuss farmers' responses to EAADP's version of the seed-fertilizer revolution and emphasise the impact on the local economy of changes in the macro-economic framework of policy in the 1980s. Section five describes the project's livestock development programme, with specific reference to poultry. A final section concludes the chapter.

## **7.2 Crop Production**

The Ekiti-Akoko project sought to increase small-farmer food production by 50,000 tonnes of grain equivalent. Its operational strategy, therefore, was to 'promote intensive use of cultivated plots through the introduction of improved seedlings and related cultural practices.'<sup>14</sup> This section describes the project's crop development programme. Project-specific and Nigeria-wide data on food output are employed to determine EAADP's contribution to food production in the 1980s.

Two major factors seem to have influenced the nature of the project's crop production programmes. The first is that the project's initial crop improvement scheme excluded cocoyam and yams,<sup>15</sup> which, as shown earlier, were and still are key elements of local food systems. Secondly, EAADP did not introduce any new crop into the local cropping complex. One exception is soyabeans, which was most probably introduced into the area by EAADP. However, local demand for soyabeans was extremely low in the 1980s and the situation is not likely to have changed significantly now. A second, more

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<sup>14</sup> APMEPU, *EAADP Completion Report, Main Report* (Benin-City, 1987), p. 72.

<sup>15</sup> *Ibid.*, p. 51; Interview, 30 March 1992.

questionable, exception is cowpeas. Elebute has suggested, for example, that the project introduced cowpea cultivation in the Ekiti North LGA.<sup>16</sup> But he provided no evidence and his position has not been confirmed by project documents or by my own inquiries. Moreover, cowpea has been part of crop mixtures in the area long before the commencement of project operations in 1981. It is reasonable to assume, therefore, that the cultivation of soyabean and/or cowpea by local farmers would not alter the above statement or affect the overall diffusion rate negatively.

There is therefore a lack of novelty in the project's crop complex. This is not necessarily bad in itself, and may in fact suggest that the project area was by 1981 relatively saturated with food crops for which local soils and local ecology are suitable. If this is the case, it would follow that local experimentation and perhaps previous development programmes have successfully matched crops with local resources, or alternatively, that the Ekiti-Akoko area has no comparative advantage in any of the crops with which the green revolution has had some success. Either way, the absence of a 'big idea' or new crops in EAADP's programme virtually reduced the project to a demonstration farm writ large. While demonstration farms as well as specific demonstrations of modern cultural practices to farming families are valuable, the literature suggests that the 'demonstration effect' of previous projects has been limited.<sup>17</sup> The question therefore is whether the demonstration function alone justifies EAADP's scale or public expenditure on it, and whether the demonstration objective could not have been pursued through a less expensive, alternative strategy.

Ekiti-Akoko ADP did perform other roles, however, notably the establishment of its own farms to multiply improved seeds in aid of the demonstration function. In 1982-86, for example, a total of 435.3 ha. or 87 ha. per annum were cultivated for seed

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<sup>16</sup> Adebayo Elebute, 'The Socio-Economic Impact of Ekiti-Akoko Agricultural Project in Ekiti North Local Government Area of Ondo State', B.Sc Honours Essay, Department of Geography, University of Ilorin (1985), p. 49.

<sup>17</sup> R. O. Adegboye, A. C. Basu and Dupe Olatunbosun, 'Impact of Western Nigerian Farm Settlements on Surrounding Farmers', *NJESS*, 11, 2 (1969), pp. 229-240; and Francis Idachaba, 'The "Demonstration Effect" of Farm Institutes and Settlements: Theory and Evidence', *BRES*, 8, 2 (1973), pp. 193-209.

multiplication.<sup>18</sup> The project also produced food crops on its farms, in effect competing with small farmers in the local food market. According to project data, an estimated 501,100 ha., or 125,275 ha. each year, were planted with maize, rice, yams, cassava, and cocoyam throughout the Ekiti-Akoko area in 1983-86 (Table 7.1).

**Table 7.1**  
**Crop Production in Project Area, 1983-86**

Crop	Total hectarage ('000 ha.)				
	1983	1984	1985	1986	Average
Maize	25.5	29.0	32.7	27.3	28.6
Rice	4.5	4.5	5.1	6.0	5.0
Yam	20.5	29.3	30.7	32.4	28.2
Cassava	20.6	39.8	51.3	68.0	44.9
Cocoyam	12.3	21.8	19.6	20.2	18.5
Total	83.4	124.4	139.4	153.9	125.2
% change	-	49.2	12.1	10.4	-

Source: EAADP, 'Brief on EAADP, 1982-May 1986', Appendix 1.

At face value, Table 7.1 suggests clearly that food crop hectarage increased in 1983-86, sharply at first, and more slowly after 1984, but in any case that EAADP operations *did* occasion a substantial increase in area cultivated to food crops. The latter general claim is open to question, not least because of the parlous state of official statistics. Even if the claim was accepted for reasons of argument, there are specific reasons why possible important inferences from Table 7.1 cannot hold. For example, the data suggest that yam hectarage increased by nearly 30% while cassava's almost doubled between 1983 and 1984. In fact, such large increases are possible only if one crop had displaced the other (of which see below) or, more important in Ekiti-Akoko's resource circumstances, if there has been a substantial increase in labour supply. Neither the project itself nor wider sources have thrown up credible evidence of labour or population movements into the project area in the 1980s, on a scale necessary to support large increases in land cultivated by Ekiti-Akoko's food farmers. It has to be inferred, therefore, that data in Table 7.1 are implausible and similar to the project manager's claims on project-induced increases in the frequency of contact between farmers and extension officers (see chapter

<sup>18</sup> EAADP, *Internal Completion Report*, p. 59.

6.3 above). As in that case, the content of data seemed to have been informed more by the need for evidence to justify officials' claims of operational success than by the need to reflect the starker realities of food production in the project area. Initial, sharp increases in land under yams and cassava proved unsustainable in this instance, lending further support to the view that the claims were false or at least unrealistic.

Table 7.1 also has implications for crop substitution, the practice by which smaller farmers have sought increased productivity by shifting resources between different mixes of crops or crop variants. With regard to Africa's smaller farmers, the debate has not been about the fact of crop substitution, rather about whether land or labour has been the dominant consideration in particular cases. Two non-mutually exclusive positions, associated most widely with William Jones and Paul Richards, are available in the literature, namely that Africa's smaller farmers have often substituted cassava for white yams in order to conserve, or increase returns to, land (Jones)<sup>19</sup> or labour (Richards).<sup>20</sup> Ekiti-Akoko's data on yam and cassava's positions vis-a-vis each other and total cropped area provide useful general insights on this debate.

In 1983, yam and cassava shared 41,000 ha. between them and accounted for about half of total cultivated area (Table 7.2). Cassava cultivation however expanded faster, exceeding yam in absolute and relative terms after 1984. By 1986, the (absolute) land area planted with yam had increased by about half while its share of total hectareage had declined from one-quarter to one-fifth. In contrast, cassava hectareage tripled between 1983 and 1986 while its share of total hectareage increased from 25% in 1983 to 44%, or double yam's corresponding share, in 1986. Cassava accounted for over one-third of land under arable crops, about 14 percentage points over and above yam and maize respectively, over the four-year period. Table 7.2 thus provides support for Richards' view, that small-farmers have over time cultivated more land to cassava than yam because

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<sup>19</sup> William Jones, 'Manioc: An Example of Innovation in African Economies', *EDCC*, V, 2 (1957), pp. 97-117; and his *Manioc in Africa* (Stanford, 1959).

<sup>20</sup> Paul Richards, *Indigenous Agricultural Revolution* (1985).

'cassava is more "labour efficient" and less demanding of soil fertility than white yam.'<sup>21</sup>

**Table 7.2**  
**Growth of Crop Production in Ekiti-Akoko Area, 1983-86**

Crop		Indices (a: 1983=100; b: % of total hectarage)				
		1983	1984	1985	1986	Total
Maize	a	100.0	113.7	128.2	107.1	-
	b	30.6	23.3	23.5	17.7	22.8
Rice	a	100.0	100.0	113.3	133.3	-
	b	5.4	3.6	3.6	3.9	4.0
Yam	a	100.0	143.0	148.0	158.0	-
	b	24.6	23.6	22.0	21.1	22.5
Cassava	a	100.0	193.2	249.0	330.1	-
	b	24.7	32.0	36.8	44.2	36.0
Cocoyam	a	100.0	177.2	159.3	164.2	-
	b	14.7	17.5	14.1	13.1	14.7

Base figures from Table 7.1.

As shown above, however, project data on area cultivated are implausible in particular respects. Hence, the analytical and comparative value of indices in Table 7.2 is open to question. The general inference to draw, therefore, is *not* that in terms of area cultivated, cassava had displaced yams by so many percentage points or so many hectares in the Ekiti-Akoko area in the 1980s. Rather that Ekiti-Akoko's smaller farmers are likely to have been inclined, as farmers elsewhere, to shift land between yams and cassava in response to specific resource circumstances - in this case labour scarcity.

Ekiti-Akoko ADP's share of this total hectarage has not been indicated by available sources. But produce from its farms was sold direct to the public or to state distribution agencies, especially the Ondo State Investment Corporation. The corporation in turn re-sold the foodstuff to public servants through individual ministries or departments, or to interested members of the public. Ondo State's civil servants and other segments of the

<sup>21</sup> *Ibid.*, p. 109; cf. Jones, 'Manioc'.

elite thus benefitted significantly from state involvement in food production. Some civil servants still recalled the scheme with apparent nostalgia during my fieldwork in 1992 and even recommended a return to the 'golden era' of direct production by state agencies.

For the civil servant, bulk purchase of foodstuff from EAADP or from other state-owned distribution outlets was more convenient and ultimately cheaper than food procured from the open market. If anything, implicit subsidies have often resulted from administrative price-setting for government farms' output. The frequent use of official facilities, for example vehicles and official time, to transport procurements from project warehouses to final consumers in the public services has the same effect. The Ekiti-Akoko project was thus part of the trend in Nigeria between the 1970s and mid-1980s, under which state agencies were actively engaged in direct production and/or marketing of staple foods.

Cohen has attributed the relative increases in food output in the mid-1980s to increased public investment on ADPs and river basin authorities, and indirectly at least, to direct food production by these and other state agencies.<sup>22</sup> Fasoranti has also noted EAADP's role in expanding food output in its operational area.<sup>23</sup> These views are supported by official statistics, which indicate broad increases in total output of major crops in the 1980s. A less exciting picture is suggested, however, by comparison of total output before and after 1975, when Nigeria's pilot ADPs were inaugurated.

Table 7.3 expresses nation-wide output data on seven major crops (i.e. four grain crops and three tubers/roots) in 1982-89 as an index of 1975 production. The indices suggests that increases in output were more remarkable for grains than for roots and tubers, and that the production of crops grown widely in the Ekiti-Akoko area remained much below 1975 levels until 1987. As noted above, however, Nigeria's official aggregate data do not necessarily reflect agricultural performance at state or project levels. This means that

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<sup>22</sup> Ronald Cohen, 'Adversity and Transformation: The Nigerian Light at the End of the Tunnel', in R. Cohen (ed.), *Satisfying Africa's Food Needs* (1988), p. 215; pp. 223-226.

<sup>23</sup> O. O. Fasoranti, 'Agriculture and Rural Development: Lessons from the Ekiti-Akoko Agricultural Development Project (ADP) Experience', in S. A. Olomola and A. C. Nwosu (eds.), *Rural Development Strategies in Nigeria* (Lagos? 1992), p. 93.



Table 7.3 cannot provide a credible basis for direct inferences on ADPs' achievements, and that agricultural performance in the 1980s has to be explained in terms of wider, non-project variables.

**Table 7.3**  
**Nigeria: Index of Output of Major Food Crops, 1982-89 (1975=100)**

Crop	Indices							
	1982	1983	1984	1985	1986	1987	1988	1989
Maize	57.5	44.6	79.4	89.3	100.3	90.2	96.0	100.5
Millet	104.5	109.1	131.3	144.5	161.2	153.1	146.0	149.1
Sorghum	125.1	110.1	154.1	167.0	182.4	173.3	110.3	112.0
Rice	42.1	28.8	31.2	39.0	56.2	59.0	105.0	136.3
Cassava	25.5	22.1	52.0	59.3	67.3	64.0	136.0	160.4
Yams	62.5	47.0	53.4	55.0	60.4	56.7	106.0	106.4
Cocoyam	55.6	44.4	40.7	n.a.	74.0	70.2	137.5	129.0

Note: 'n.a.' means not available.

Computed from: CBN, *Statistical Bulletin*, 1, 1 & 2 (1990), Table C.1.2, p. 78.

By 1988, when output for rice, cassava, yams and cocoyam exceeded 1975 base figures, Nigeria's economic reform programme was well under way. The combination of incentives spawned by the reform programme and favourable weather after 1987 means that output increases could not be attributed entirely to direct production by ADPs or to the successful diffusion of their production packages.<sup>24</sup> Since, as I show shortly, input sales were poor in the Ekiti-Akoko area during the 1980s, output increases in the area are likely to have resulted from expanded acreages rather than from intensive cultivation.

The social value of Nigeria's ADPs and irrigation schemes has always been questioned in the literature. Capital-intensive farming of the type preferred by ADPs and river basin development authorities has been shown to intensify rural poverty and landlessness in close-settled northern Nigeria, where small-holders have been displaced by large-scale

<sup>24</sup> For slightly different views, see J. A. Ukoje and J. M. Baba, 'The Impact of the Ayangba Agricultural Development Project on the Quality of Rural Life', in Martin U. Igbozurike and R. Raza (eds.), *Rural Nigeria* (Ilorin, 1983), pp. 214-216; Duro Oniemola, 'The World Bank and Capitalist Agricultural Development: The Ilorin Agricultural Development Project in Nigeria', mimeo (Berlin, 1986?), pp. 8-10; cf. Cohen, 'Adversity', p. 216.

farms and/or irrigation schemes.<sup>25</sup> In Funtua ADP, according to Mabogunje, 60% of personal visits by extension agents were concentrated on the 25% of all farmers classified as 'progressive'.<sup>26</sup> This might not amount to much per head since progressive farmers are better-off in relation to their 'non-progressive' counterparts, but it does mean that, as a group, progressive farmers have almost always obtained an inordinate share of project resources, including tractor loans, inputs, and commercial credit. As a result, progressive farmers have been better able to expand production by cropping plots hitherto cultivated by peasants - in other words, a further squeezing of those least able to respond to project-induced stimuli. As D'Silva and Raza have remarked,

the traditional cash-poor farmer...will continue producing for subsistence and...may not be able to break out of the vicious cycle of poverty. The emergence of a landless class is a possibility for the first time in [the Funtua] area.<sup>27</sup>

Similar observations have been made on the Bakolori project by Beckman and on the irrigation strategy generally by Wallace.<sup>28</sup> According to Cohen, these claims reflect the ideological preferences of 'progressive' scholars.<sup>29</sup> But his counterpoint has not provided any more convincing rationale for the distributional inequities occasioned by ADPs and

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<sup>25</sup> Michael Watts and Robert Shenton, 'State and Agrarian Transformation in Nigeria', in Jonathan Barker (ed.), *The Politics of Agriculture in Tropical Africa* (1981), pp. 173-203; Michael Watts and Paul Lubeck, 'The Popular Classes and the Oil Boom: A Political Economy of Rural and Urban Poverty', in I. William Zartman (ed.), *The Political Economy of Nigeria* (New York, 1983), pp. 121-130; R. Dunmoye, 'The Political Economy of Agricultural Production in Africa: State, Capital and the Peasantry', *PS*, 16, 2 (1989), pp. 102-103.

<sup>26</sup> Akin L. Mabogunje, 'The Funtua Integrated Rural Development Project', in R. P. Misra (ed.), *Rural Development* (New Delhi, 1981), p. 202.

<sup>27</sup> Brian C. D'Silva and M. Rafique Raza, 'Integrated Rural Development in Nigeria: The Funtua Project', *FP*, 5, 4 (1980), p. 295.

<sup>28</sup> Bjorn Beckman, 'Bakolori: Peasants vs. State and Capital', *NJPS*, 4, 1/2 (1985), pp. 76-104; and 'Public Investments and Agrarian Transformation in Northern Nigeria', in Michael Watts (ed.), *State, Oil, and Agriculture in Nigeria* (Berkeley, 1987), pp. 110-137; T. Wallace, 'Agricultural Projects and Land in Northern Nigeria', *ROAPE*, 17 (1980), pp. 59-70, and 'The Challenge of Food: Nigeria's Approach to Agriculture 1975-80', *CJAS*, 15 (1981), pp. 239-258.

<sup>29</sup> Cohen, 'Adversity', p. 223. See also P. O. Olusanya, 'Differential Rural-Urban Development in Nigeria and the Myth of the Exploited Peasantry', *Odu*, new ser., 27 (1986), pp. 3-23. For more general analysis, see John Weeks, 'The Vanishing Rural-Urban Gap in Sub-Saharan Africa', *ILR*, 127, 3 (1988), pp. 271-292; Vali Jamal and John Weeks, *Africa Misunderstood* (1993).

river basin authorities.

The wider socio-economic impact of direct food production by state agencies is more difficult to ascertain. For one, access to project food (as to other publicly-administered benefits) is almost always structured against ordinary members of the public. As Stiglitz has observed in another context, the administrative control of the distribution of public goods is itself a public good, a veritable means of channelling scarce values to privileged constituencies.<sup>30</sup> In Nigeria, administrative power has been the principal instrument by which public servants and the 'urban' elite generally have cornered an inordinate share of subsidized goods, especially those that have been christened as 'essential commodities' since the late 1970s. For another, the availability of large quantities of subsidised food (both imported and locally-produced) invariably depresses demand and prices in local markets.<sup>31</sup> Bumper harvests occasioned by state-backed campaigns to make everybody grow some food in garden farms have often had similar results.<sup>32</sup> These forms of intervention could mean higher opportunity costs, greater risk of economic losses, or outright disincentive to expanded production for cash-poor but ambitious small-farmers.

Aggregate data on food imports and consumer prices for the 1980s also suggest that food production by Nigeria's ADPs and river basin authorities was marginal or insignificant in macro-economic terms. To be sure, the value of food imports in real 1975 terms had declined sharply after 1983, by up to 40% from about N7.0 million in 1980 to just under N4.0 million in 1983, and even further after 1984 (Table 7.4). Still, food imports stood at between 7% and 20% of all imports in 1980-89 and averaged 12% of all imports in 1980-89, compared with between 7.6% and 15.4% and overall average of 11% in 1970-79.<sup>33</sup> In any case, food imports by value remained well over 1975 base levels

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<sup>30</sup> Joseph E. Stiglitz, 'Rational Peasants, Efficient Institutions, and a Theory of Rural Organisation: Methodological Remarks for Development Economics', in Pranab Bardhan (ed.), *The Economic Theory of Agrarian Institutions* (Oxford, 1989), note 19, p. 29.

<sup>31</sup> Watts and Lubeck, 'Popular Classes', pp. 118-119.

<sup>32</sup> Cf. Robert Shenton, *The Development of Capitalism in Northern Nigeria* (1986), pp. 104-105.

<sup>33</sup> Cf. A. O. Sanda, *The Nigerian State and Agricultural Policy Managements* (Ile-Ife, 1991), Table 14, p. 73.

throughout the 1980s. Real decreases in the food import bill are also likely to have reflected Nigeria's foreign exchange difficulties and resulting physical import restrictions imposed intermittently (and probably applied unevenly) since the early 1980s more than corresponding increases in local food supply from ADPs or state farms.

Table 7.4  
Nigeria's Food Imports, 1980-89 *fell*

Year	Value (millions, real 1975 Naira)	% change	Index (1975=100)	% of total imports
1980	7.02	-	675.0	15.8
1981	7.35	4.7	706.7	14.4
1982	6.16	-16.2	592.3	16.3
1983	3.95	-35.9	379.8	19.8
1984	1.84	-53.4	176.9	18.8
1985	1.94	5.4	186.5	17.0
1986	1.57	-19.1	151.0	13.4
1987	2.93	86.6	281.7	10.5
1988	1.57	-46.4	151.0	8.8
1989	1.57	0.0	151.0	6.8
Average	3.59	-	345.2	12.3

Source: CBN, *Statistical Bulletin*, 1, 1 & 2 (1990), Table D.1.2, p. 113 (import values). Prices deflated with all-Nigeria composite CPI figures in *ibid.*, Table C.3.1, p. 93.

Above all, production in government farms did not necessarily ease the upward movement in food prices in the 1980s. The consumer price index (CPI) conventionally measures changes in the cost of a typical basket of consumer goods over a period of time (usually one year in relation to another), and would be employed here to determine the price impact of state production in the 1980s. To specify the differential impact of state production, it is also necessary to determine how food prices compare with non-food prices, and above all, differences in consumer price movements between urban and rural areas, and between food and non-food items in each case. The usual caveats about Nigeria's official data will most certainly make the results imprecise, but inferences based on imprecise evidence *are* more useful than unsupported statements.

Tables 7.5, 7.6, and 7.7 present composite, urban, and rural price indices respectively for food, non-food items (household goods, clothing, transport), and the all-inclusive category. Specific non-food items have been selected to facilitate comparison of food

**Table 7.5**  
**All-Nigeria Composite Consumer Price Index, 1982-86 (select items)**

Year		Indices (a: 1975=100 <sup>a</sup> ; b: 1980=100 <sup>b</sup> )				
		Food	Household goods/other purchases	Clothing	Transport	All Items
1982	a	272.4	213.4	334.6	223.9	266.5
	b	136.3	117.6	123.8	113.5	130.1
1983	a	335.6	328.1	397.5	271.2	328.4
	b	168.0	180.8	147.1	137.5	160.4
1984	a	479.7	516.1	559.7	315.8	458.4
	b	240.0	284.4	207.1	160.1	223.8
1985	a	498.5	542.0	610.3	357.2	483.7
	b	249.4	298.6	226.0	181.0	236.2
1986	a	499.2	709.0	704.3	422.2	509.7
	b	249.7	390.6	260.7	214.0	249.0

Sources: <sup>a</sup> CBN, *Statistical Bulletin*, 1, 1 & 2 (1990), Table C.3.1, p. 93. <sup>b</sup> Computed.

**Table 7.6**  
**All-Nigeria Urban Consumer Price Index, 1982-86 (select items)**

Year		Indices (a: 1975=100 <sup>a</sup> ; b: 1980=100 <sup>b</sup> )				
		Food	Household goods/other purchases	Clothing	Transport	All Items
1982	a	327.7	206.9	231.8	206.8	283.2
	b	140.3	115.0	113.1	107.0	130.0
1983	a	401.0	281.2	266.9	235.0	339.8
	b	171.7	156.3	130.3	121.6	156.0
1984	a	585.3	430.8	351.7	277.6	479.7
	b	250.7	239.5	171.6	143.7	220.1
1985	a	575.7	501.5	447.6	281.2	493.8
	b	246.6	278.8	218.4	145.5	226.6
1986	a	619.2	648.1	553.9	346.8	543.6
	b	265.2	360.3	270.3	179.5	249.5

Sources: <sup>a</sup> CBN, *Statistical Bulletin*, 1, 1 & 2 (1990), Table C.3.2, p. 94. <sup>b</sup> Computed.

**Table 7.7**  
**All-Nigeria Rural Consumer Price Index, 1982-86 (select items)**

Year		Indices (a: 1975=100 <sup>a</sup> ; b: 1980=100 <sup>b</sup> )				
		Food	Household goods/other purchases	Clothing	Transport	All Items
1982	a	264.6	214.3	349.0	226.6	264.2
	b	135.6	118.0	125.0	114.5	130.1
1983	a	326.4	234.7	415.8	276.2	326.8
	b	167.2	129.2	148.8	139.6	161.0
1984	a	464.9	528.1	588.8	321.1	455.4
	b	238.2	290.6	210.7	162.3	224.3
1985	a	487.7	547.7	633.1	367.9	482.3
	b	249.8	301.4	226.6	186.0	237.5
1986	a	482.3	717.6	725.4	432.8	504.9
	b	247.1	395.0	259.6	218.7	248.7

Sources: <sup>a</sup> CBN, *Statistical Bulletin*, 1, 1 & 2 (1990), Table C.3.3, p. 95. <sup>b</sup> Computed.

prices with general consumer prices and with those of specific goods most likely to be included in real-life baskets, regardless of the consumer's location and socio-economic status. Official CPI figures (a in tables) have been calculated with 1975 as base year, but I have also computed a second index (b in tables) with 1980 as base year to reflect higher inflation and prices in the 1980s and therefore make for a realistic comparison of the figures.

All three tables suggest that price inflation was rampant in Nigeria in the 1980s and not limited to foodstuff. Prices moved haphazardly in all cases, with the largest movements recorded after 1984 - ironically after large, politically-motivated expenditure on state-led agricultural strategies in Nigeria's second republic (1979-83) - but neither urban nor rural food prices declined in real terms throughout the 1980s. Even after changing the base year from 1975 to 1980, food prices remained at more than double base levels from 1984 onwards, much unlike non-food items like transport, the prices of which remained just above base levels in 1982 and below the 200% mark for much of the period.

Specifically, food prices rose more steeply in rural than in urban areas between 1984 and

1985, suggesting that a lower proportion of supplies was being offered for sale in rural markets as more and more foodstuff ended up in self-consumption or in urban markets. Moreover, in relation to respective base rates, urban food prices rose faster and consistently, remaining higher than those of other items as well as the general all-inclusive category. Incidentally, state production has almost always been targeted at urban wage earners, partly to calm a politically important but potentially restive population, as public choice theorists have argued,<sup>34</sup> and partly because rural consumers could more easily produce part of their own food if and when prices became unbearably high. High food prices in urban centres suggest, therefore, that food supply from state farms was either too low or whatever was available had been swallowed up by black markets. Either way, it seems that Nigeria's state farms failed to exert a downward pressure on food prices in urban markets. Moreover, the operations of state farms, and the vast 'internal markets' by which their subsidized foodstuff was channelled to urban wage earners, ultimately had a distorting effect on prices and structured the market against rural producers.

### **7.3 Land Productivity**

From the rural economic viewpoint, project farms are far more important for their role in agronomic research than for their direct contribution to food production. This section considers the impact of project operations on output per unit of land. Since land is the most abundant productive factor in rural Ondo State, project-induced improvements in its productivity could well generate local interest in new cropping and/or farm management techniques even by farmers who may be unwilling or unable to adopt seed-fertilizer packages.

In what looks like a resuscitation of the on-station research of the colonial period, Ekiti-Akoko project farms became important centres for investigations on crop husbandry, with emphasis on the comparative responses of traditional and improved crop varieties to fertilizer and to improved cultural practices. The farms also served as control centres for demonstrations on farmers' plots, enabling extension workers to isolate conditions under

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<sup>34</sup> Robert Bates, *Markets and States in Tropical Africa* (Berkeley, 1981).

which particular crops do best, or how crop yields could be improved.

Basically, a demonstration plot on the project's farm comprised two sets of each crop. Each set consisted of a local variety and an improved variety of the same crop. One set was given fertilizer treatment while the other set was not fertilized. In sum therefore, each crop had four experimental plots, namely (a) local variety without fertilizer,  $LVF_0$ ; (b) improved variety without fertilizer,  $IVF_0$ ; (c) local variety with fertilizer,  $LVF_1$ ; and (d) improved variety with fertilizer,  $IVF_1$ .

In the 1982/83 season, for example, EAADP established a total of 922 demonstration plots or about 95% of target for five main crops, namely maize, rice, yams, cowpea, and cassava. According to Christensen, the project's cowpea crop failed on account of bad weather and pest infection while its cassava crop had not been harvested by mid-1984 when his final report was written. This left three staple crops, namely maize, rice, and yams, of which a total of 561 plots or 94% of the total number of plots established were harvested.

Two caveats need to be entered before the yield data are considered. First, the quality as well as scope of the data vary between crops. For example, the yield data for maize are based on 180 harvested plots measuring about 100 square metres or 1.63 acres each, though each of the five LGAs in the project area had at least 10% of harvested plots. In turn, the size of rice plots is not stated. Moreover, only 73 rice plots were harvested. As stated above, there were no plantings in Akoko South LGA and the rice crop in Akoko North LGA failed. The rice data refer therefore to only three Ekiti LGAs in the project area. Finally, yield data for yams are extrapolated from average yield data obtained from a total of 308 harvested plots of about 25 heaps or 0.02 acres each. Demonstration plots were evenly distributed throughout the project area, but no LGA had less than 18% of the total number of plots harvested.

The second caveat follows closely on the first. While the results as a whole are more indicative than representative, returns for maize and yam reflect broad conditions in all parts of the project area. To this extent they are likely to be closer to reality than the



result as a whole. The case of rice is equally straight-forward: in relation to the project area as well as the whole of Ondo State, rice production has not been particularly significant in the Akoko area. In the 1978 rural economic survey, for example, Akoko LGAs accounted for only 10% of an estimated 12,470 ha. of rice cultivated in the project area.<sup>35</sup> The latter figure itself amounted to 44% of total estimated rice hectareage in Ondo State in 1978. The absence of data from demonstration plots in Akoko North and South LGAs cannot therefore diminish the wider relevance of available yield data. Thus although the foregoing limitations are important in themselves, the yield data could still be employed to explore possibilities in land productivity as well as in the diffusion of seeds and fertilizer in the project area.

Some interesting inferences are suggested by the yield data in Table 7.8. In all cases and experimental configurations, improved crop varieties produced higher yields per hectare than unimproved varieties. Specifically, IVF<sub>0</sub> plots produced yield increases of between

**Table 7.8**  
**Crop Yield Data from Project Demonstration Farms, 1982**

Crop	Yield (tonne/ha.) <sup>a</sup>			
	(1) LVF <sub>0</sub>	(2) IVF <sub>0</sub>	(3) LVF <sub>1</sub>	(4) IVF <sub>1</sub>
<b>Maize</b>				
Range <sup>b</sup>	0.81-1.60	1.03-2.38	1.67-2.70	2.77-4.80
Average	1.35	2.04	2.44	3.56
% change	-	51.1	19.6	46.0
<b>Rice</b>				
Range	0.42-1.23	0.82-1.60	1.13-2.09	1.50-2.20
Average	0.79	1.13	1.45	1.61
% change	-	43.0	28.3	11.0
<b>Yams</b>				
Range	2.96-6.16	3.52-9.79	4.16-12.03	4.56-15.1
Average	4.31	6.13	7.16	8.4
% change	-	42.2	16.8	17.3

Legend: LVF<sub>0</sub>- Local variety without fertilizer; IVF<sub>0</sub>- Improved variety without fertilizer;  
LVF<sub>1</sub>- Local variety with fertilizer; IVF<sub>1</sub>- Improved variety with fertilizer.

Notes: <sup>a</sup> See text above for explanatory notes on plot size. <sup>b</sup> Actual yield figures at LG level for all crops.  
Computed from: Christensen, *Final Report*, Table 10, pp. 39-40.

<sup>35</sup> ODS, *Report on Rural Economic Survey, 1978* (Akure, n.d.), Table 34, pp. 37-38.

40-50% per unit area over LVF<sub>0</sub> plots. In contrast, absolute yield differentials between seed varieties treated with fertilizer (i.e LVF<sub>1</sub> and IVF<sub>1</sub>) are less substantial. Estimates of absolute change in yield per unit area ranged from 11% for rice through 17% for yams to a remarkable 46% for maize. However, LVF<sub>1</sub> plots still returned an estimated 17-28% higher yield per unit area over and above IVF<sub>0</sub> plots.

Differences in relative yield between local and improved seed varieties - with or without fertilizer treatment - are perhaps more interesting analytically. To measure relative change in yield per unit area, an index with LVF<sub>0</sub> yield returns as base figures (Table 7.9) was computed. The standard deviation as well as the co-efficient of variation for all four demonstrations on each crop were also estimated. The results suggest clearly that relative crop yields increase as one moves away from LVF<sub>0</sub> to IVF<sub>1</sub>, or from the basic,

**Table 7.9**  
**Statistical Measures on Demonstration Farms' Crop Yield**

<b>Crop</b>	<b>(1) LVF<sub>0</sub></b>	<b>(2) IVF<sub>0</sub></b>	<b>(3) LVF<sub>1</sub></b>	<b>(4) IVF<sub>1</sub></b>
<b>Maize</b>				
Index <sup>a</sup>	100	151.1	180.7	264.0
Standard deviation	0.28	0.49	0.37	0.67
Coeff. of variation	0.21	0.24	0.15	0.18
<b>Rice</b>				
Index	100	143.0	183.5	204.0
Standard deviation	0.4	0.37	0.44	0.35
Coeff. of variation	0.51	0.33	0.3	0.22
<b>Yams</b>				
Index	100	142.2	166.1	195.0
Standard deviation	1.21	2.28	2.89	4.03
Coeff. of variation	0.28	0.37	0.4	0.48

Note: <sup>a</sup> LVF<sub>0</sub>=100 for all indices.

Source: Same as Table 7.8 above.

near-natural type of farming to improved seeds with fertilizer treatment. The standard deviation of yields per hectare increases for maize and yams but moves haphazardly in the case of rice. Most estimates of the coefficient of variation are however below 0.5, the two exceptions being the estimate for rice LVF<sub>0</sub> estimate and yam's IVF<sub>1</sub> estimate. The former could mean that rice output per hectare would increase most from widespread adoption of improved seeds and/or fertilizer, but the rice data are also the most

geographically limited of all three crops. The case of yam cannot possibly be explained in the same terms. But the point remains that the co-efficients of variation are broadly comparable within each crop. This suggests that actual yields at various project locations did not vary significantly from each crop's mean yield.

The foregoing results are only to be expected. If anything, HYVs or improved seed varieties generally are distinguished by their 'greater genetic potential for response to increased amounts of plant nutrition.'<sup>36</sup> High-yielding rice and wheat seeds also produce 'a larger edible proportion in the total dry matter' per unit weight.<sup>37</sup> Under normal circumstances, these translate to increased returns to labour and capital even at the small unit-farm level. Without complementary inputs, including mechanisation, improved seeds *should* still produce higher yields per unit area than unimproved seeds.<sup>38</sup> If soil properties and response to fertilizer are assumed to be similar, and other factors (e.g. rainfall, weeding, pest control, correct input application procedures) are held constant, differences in yield between improved and unimproved seed varieties should be less substantial where fertilizer has *not* been applied. This means that optimal yields result from a combination of factors, including the nature of the seeds themselves, the regular use of standard complementary inputs, and the observance of recommended practices. It also follows, however, that farmers operating at the margins of the seed-fertilizer revolution, for example those short of capital and credit who could not afford fertilizer, or every farmer if fertilizer is costly, could increase returns to land by adopting improved seeds *without* complementary inputs, especially fertilizer. Returns to labour could also be increased in the same way, subject to the assumption that HYVs are in themselves no more labour intensive than local seed varieties.

Both positions can be illustrated with yield data in Table 7.8 or statistical inferences from the data (Table 7.9). That small farmers could increase land productivity substantially by

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<sup>36</sup> Ruttan and Binswanger, 'Induced Innovation', p. 359.

<sup>37</sup> Hans Ruthenberg, *Innovation Policy for Small Farmers in the Tropics*, ed. Hans E. Jahnke (Oxford, 1985), p. 43.

<sup>38</sup> *Ibid.*, p. 45.

adopting fertilizer and/or improved seeds, could be supported by comparing yields from IVF<sub>0</sub> and LVF<sub>1</sub>, perhaps the two least difficult options for traditional farmers in the context of project operations. Both options between them offer an estimated increase in yield per hectare of 40-80 index units, with yield from unfertilized local seed varieties as base rates (Table 7.9). Specifically, IVF<sub>0</sub> plots produce an estimated increase of 42-50 index units over LVF<sub>0</sub> plots. LVF<sub>1</sub> yields are even higher than LVF<sub>0</sub> yields, by 66-83 index units. Since LVF<sub>0</sub> configurations are the minimum available cropping situation, it follows that *every* farmer could achieve substantial output increases by planting improved seeds instead of local seed varieties. Indeed, according to Ruthenberg, initial productivity gains such as these encourage crop substitution by a generality of farmers.<sup>39</sup> As I show shortly, the initial evidence on experimentation with HYVs in Ayede area has provided some support for Ruthenberg's position.

Comparisons of fertilized plots (IVF<sub>0</sub>) and unfertilized plots (LVF<sub>1</sub>) suggest a slightly different picture. Between IVF<sub>0</sub> and LVF<sub>1</sub>, for example, the relative increase in average yield per hectare narrows to about 25 index units for yams and 30-40 units for maize and rice, lower than the yield differential between LVF<sub>0</sub> and IVF<sub>0</sub>. To be sure, average yields from LVF<sub>1</sub> as well as from IVF<sub>1</sub> plots remain considerably higher than yield from IVF<sub>0</sub> plots. This however excludes the financial, social and transaction costs of fertilizer application. In land-surplus rural Nigeria, the social component of these costs almost always exceeds the financial element, as in the loss of natural nutrients and land productivity and environmental degradation occasioned by the practice of matching fertilizer nutrients to crop needs rather than to specific land properties.<sup>40</sup> I shall return to this issue shortly, but the analytical question is whether it is *rational* for a smallholder on the margins to adopt fertilizer. Put differently, how realistic is it to expect peasants to adopt improved seeds *and* fertilizer when IVF<sub>1</sub> offers no more than a 40% yield increase over and above IVF<sub>0</sub>, improved seeds *without* fertilizer? The issue is not that a 40% relative yield increase is itself low; even a 10% margin could make some difference

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<sup>39</sup> *Ibid.*, pp. 45-46.

<sup>40</sup> S. O. Olayide and Francis Idachaba, 'Input and Output Marketing Systems: A Nigerian Case', in John W. Mellor, Christopher Delgado and Malcolm Blackie (eds.), *Accelerating Food Production in Sub-Saharan Africa* (1987), p. 176.

to the average peasant's circumstances. The problem is whether crop yields are themselves sufficient inducement for adoption, or more specifically, whether a 40% yield margin is large enough to offset the economic as well as the social costs of adoption by small farmers.

#### 7.4 Local Responses to Seed-Fertilizer Packages

Answers to the above question could be positive and negative, the one reflecting the official or 'expert' imagination, and the other suggesting the more complex nature of technical change in peasant agriculture. This section presents project-specific and wider evidence in support of both positions. I argue that small-farmer response has been poor in the Ekiti-Akoko area, in part because of economic considerations, and in part because of negative shifts in institutional support for small-scale agriculture in Nigeria in the 1980s.

The official position seems straight-forward enough: 'fertilizer use...can act as a catalyst or a "lead" practice in securing the adoption of other improved techniques'<sup>41</sup> to the extent that mineral fertilizer is 'divisible (i.e. largely scale-neutral), relatively easy to transport and store, simple to apply and is almost immediately effective'.<sup>42</sup> For similar reasons, HYV seeds are believed to increase cropping intensities as well as overcome seasonal unemployment irrespective of scale or of mechanisation.<sup>43</sup> This position is also supported by Christensen, who argued that 'fertilizer is the one single agricultural input which is responsible for the highest yield increase of crops' in the Ekiti-Akoko area.<sup>44</sup> If, fertilizer application *could* increase returns per unit space on plots as small as 0.02 acres, as the project's yield data suggest, then small farmers who adopted fertilizer should expect to make significant productivity gains on their plots. Adopting both fertilizer and improved seed varieties is likely to mean even higher returns.

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<sup>41</sup> FAO, *Agricultural Development*, p. 193.

<sup>42</sup> Ruthenberg, *Innovation*, p. 46.

<sup>43</sup> Cépède, 'Green Revolution', p. 2; Iftikhar Ahmed, 'The Green Revolution and Tractorisation: Their Mutual Relations and Socio-Economic Effects', *ILR*, 114, 1 (1976), p. 85.

<sup>44</sup> Christensen, *Final Report*, p. 54.

Ekiti-Akoko ADP's aggregate yield data for four seasons to 1986/87 (Table 7.10) provides some support for the above position. Data in Table 7.10 might appear more authentic at first than those in Table 7.8, not least because the former relates to a longer time frame and EAADP has not admitted to significant limitations to its content. Yet, Table 7.10 does imply that average yield per hectare increased by between 30% and 100% over and above pre-project estimates for maize, rice, yam, cassava, and cocoyam. If this is true, it would follow that small farmers might still be able to increase their average yield by between one-fifth and one-third of estimated pre-project levels, after due allowance has been made for difficulties associated with replicating experimental conditions in ordinary fields, or with the lack of correspondence in yield ratios between smaller and larger plots. Small and large farmers alike would benefit, therefore, from higher physical productivity and increased incomes resulting from fertilizer application.

**Table 7.10**  
**Comparative Crop Yield in Ekiti-Akoko Area, 1983-87 (tonnes/ha.)**

Crop	Pre-project yield <sup>a</sup>	Seasons			
		1983/84	1984/85	1985/86	1986/87
Maize	0.77	1.5	1.5	1.8	1.9
Rice	0.60	1.2	2.2	2.3	2.8
Yam	6.60	9.0	9.3	10.0	12.8
Cassava	6.10	8.0	8.0	24.0	26.7 <sup>b</sup>
Cocoyam	n.a.	6.0	6.0	n.a.	11.3 <sup>b</sup>

Notes: <sup>a</sup> Based on Staff Appraisal Report. <sup>b</sup> 1985 crops.  
Source: EAADP, *Internal Completion Report*, Table 2.9A, p. 24.

The above claim is not necessarily true, however, and one need not derive more from Table 7.10 than its face value. For example, it is not clear how the yield data in Table 7.10 had been compiled, whether they refer to improved or unimproved crop varieties, and whether the crops had been cultivated on demonstration or non-demonstration plots - by the project itself, by select project farmers or by the generality of farmers. As noted in chapter 6.5.1, EAADP's contact farmers scheme lost its initial momentum soon after take-off in 1982; official figures on the scheme are contrasting and irreconcilable. Moreover, as noted already, and unlike the data in Table 7.10, the project's experiments on its own demonstration plots were short-lived and not continuous. Table 7.10 is thus unlikely to have been based on crop yield from EAADP's demonstration plots.

That the data have wider origins is supported by EAADP's shrewd use of pre-project yield estimates, though this has implications not entirely supportive of the project. By definition, pre-project yield estimates could have been obtained only from production by the wider public, not necessarily under natural conditions or by smaller farmers, but in conditions most certainly different from those advocated by Ekiti-Akoko. As used in Table 7.10, pre-project yield estimates are a common denominator of physical productivity before and after project operations as well as a proximate measure of EAADP's internal technical efficiency in respect of crop yield. Yet, according to a subsequent project document, average grain yield per hectare on project farms was closer to pre-project levels and, in some cases, lower than those in Table 7.10.<sup>45</sup> More importantly, pre-project average yield per hectare had been estimated from cultivated areas which, in the cases of maize and rice, were larger than post-project samples by between 67% and 250%.<sup>46</sup> There is no a priori reason to conclude here that one document is a more credible source of information than the other, but smaller post-project hectarages are likely to have resulted in higher average yield per hectare than would be the case if the samples had been larger. Ekiti-Akoko ADP is thus likely to have been far less successful in its crop development objectives than Table 7.10 appears to suggest.

Wider empirical support for productivity increases from the green revolution has been no less controversial and inconclusive. As indicated above, three generations of research have left unresolved the question of whether small or large farmers have benefitted more from lower operating costs and increased yields occasioned by fertilizer and green revolution technology.<sup>47</sup> The most recent view, that size-related inequalities have been transitional, need not be questioned here. But the view is underscored by about three decades of extensive use of GR-type technology in Asia and Latin America.

Similar optimistic views can hardly apply in countries like Nigeria, where green revolution technology is newer and has been employed less extensively. To support scale-

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<sup>45</sup> EAADP, 'Brief on EAADP', p. 3.

<sup>46</sup> *Ibid.*, Appendix I.

<sup>47</sup> Recent surveys on include Lipton with Longhurst, *New Seeds*; and Glaeser, *Green Revolution*.

neutrality in such circumstances is to assume wrongly that a level playing field exists with regard to access to or effective demand for fertilizer, HYV seeds, or other inputs, and that the adoption process is not discontinuous or problematic.<sup>48</sup> It is, above all, to imply that there are no competing rationalities within rural society, for example between ordinary peasants and middle peasants, or between peasants as a group and others, including project officials and policy makers who favour commercial production. In this frame, diffusion rates are explained in terms of externalities like the lack of information or institutional rigidities. Little, if anything, is said about how new inputs affect, or in some cases disrupt, existing production patterns, raising the opportunity costs of adoption or at least increasing uncertainty in a situation that is already overly indeterminate.<sup>49</sup>

The small farmer who wishes to innovate in rural Ondo State must contend with relatively high transaction costs and a wider range of operational difficulties. As in other parts of Nigeria, pervasive rent-seeking means that large proportions of subsidized inputs, including fertilizer and other publicly-administered goods, are channelled through the black market.<sup>50</sup> Given their relative access to the policy machinery and to functionaries, middlemen and traders further distort the market by increasing prices artificially and also reinforcing the urban orientation of fertilizer use. Limited supplies as well as administrative price-setting also intensify the competition for fertilizer and almost always structure the input market against small farmers.

Hence, 'farmers [have paid] prices higher than the subsidized price- and possibly as high as it would have been without subsidies',<sup>51</sup> not least because fertilizer subsidies are

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<sup>48</sup> For a critique, see Brian C. D'Silva and M. Rafique Raza, 'Integrated Rural Development in Nigeria: The Funtua Project', *Food Policy*, 5, 4 (1980), pp. 282-297; and 'Equity Considerations in Planning and Implementing Rural Development Projects in Nigeria: An Evaluation of the Funtua Project', in Bruce L. Greenshields and M. A. Bellamy (eds.), *Rural Development* (1983), pp. 101-106.

<sup>49</sup> For a summary critique, see Peter E. Hildebrand, 'On the Non-Neutrality of Scale of Agricultural Research', in Hildebrand (ed.), *Perspectives on Farming Systems Research and Extension* (Boulder, 1986), pp. 59-69; cf. Michael Cernea, 'Sociological Knowledge for Development Projects', in Cernea (ed.), *Putting People First* (Oxford, 1985), p. 6.

<sup>50</sup> See Peter M. Lewis, 'Economic Statism, Private Capital, and the Dilemmas of Accumulation in Nigeria', *WD*, 22, 3 (1994), pp. 437-451.

<sup>51</sup> Olayide and Idachaba, 'Input', p. 177; Aja Okorie, 'Recent Experiences in Input Supply and



'partially offset by the scarcity of subsidized inputs, which in turn [drives] up the consumer price...' <sup>52</sup> In fact, fertilizer and other inputs have been obtained often at subsidized prices by middlemen (traders or civil servants) or farmers with contacts in the Agriculture Department or in other departments of state. Some of my respondents in fact claimed to have obtained their fertilizer supply through relatives or other acquaintances in the Ministry of Agriculture. Rational from the individual's viewpoint, this practice has intensified clientelism and rent-seeking in a market distorted by government activism. Middle peasants or ambitious small farmers also travel to urban or commercial centres to procure fertilizer or other inputs. Such journeys may or may not last more than one day, but peasants often use the opportunity to visit their relations in urban centres. Their economic costs can be considerable nonetheless, especially since such trips are typically undertaken at the peak of farm operations, often after closer and cheaper sources of input have been tried.

Finally, local farmers are well aware that fertilizer application hastens weed (re)growth. <sup>53</sup> Ordinarily, weeding is next to land tilling as the most labour-intensive operation in peasant agriculture. <sup>54</sup> In the wider literature, the rise of at least two forms of reciprocal labour, namely exchange labour and festive labour, has been associated with this difficulty. <sup>55</sup> As Swindell has indicated, however, the demise of domestic slavery and the 'commoditization of the economy' initially boosted demand for reciprocal labour, in some cases in forms which looked 'suspiciously like the acquisition of large labour forces

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Distribution in Nigeria', in J. Feldman and Francis Idachaba (eds.), *Crop Marketing and Input Distribution in Nigeria* (Ibadan, 1984), pp. 111-112.

<sup>52</sup> *Accelerated Development in Sub-Saharan Africa* (Washington, 1981), p. 53.

<sup>53</sup> The average Yoruba small farmer often makes this point, but farmer-tenants at Igede farm settlement made an issue of it in 1991/1992, as I show below.

<sup>54</sup> G. J. A. Ojo, 'The Changing Patterns of Traditional Group Farming in Ekiti, North Eastern Yoruba Country', *NGJ*, 6, 1 (1963), pp. 31-38.

<sup>55</sup> For pioneer studies, see Charles J. Erasmus, 'Culture Structure and Process: The Occurrence and Disappearance of Reciprocal Farm Labour', *Southwestern Journal of Anthropology*, 12, 4 (1956), pp. 444-469 on Haiti; and David W. Ames, 'Wolof Co-operative Work Groups', in William R. Bascom and Melville J. Herskovits (eds.), *Continuity and Change in African Cultures* (Chicago, 1959), pp. 224-237 on The Gambia. For more recent general overviews, see M. P. Moore, 'Cooperative Labour in Peasant Agriculture', *JPS*, 2 (1975), pp. 270-291 and Ken Swindell, *Farm Labour* (Cambridge, 1985), chp. 5.

which had previously been available through the ownership of slaves.<sup>56</sup> Expanded commercial production and the cash nexus have occasioned a subsequent movement away from reciprocal labour, encouraged the emergence of new forms of cooperative labour, and ensured that net labour transfers have favoured larger or better-off farmers.<sup>57</sup>

Fertilizer use by the small farmer thus means more intensive demand for labour in a transitional but decisively labour-scarce agricultural economy. In general, the additional fertilizer-induced demand for labour could mean increased seasonal employment for landless labourers.<sup>58</sup> As indicated earlier, however, landlessness is unknown in the Ekiti-Akoko area as every able-bodied man has almost unrestricted access to farmland. Hence, labour scarcity at peak season could only drive up farm wages and thus reduce effective demand for wage labour by small, cash-poor farmers. Olayide and Idachaba have also observed that fertilizer application 'raises the possibility of mass pest infestation'.<sup>59</sup> The small farmer who intends to adopt fertilizer must therefore contemplate the risk of low crop yield and/or total crop failure from pest attack in addition to problems with labour supply.

In theory, the cost of additional labour employed in weeding operations could be offset by increases in crop yield. Depending on the socio-economic circumstances of individual farmers and wider variables (e.g. price levels), higher crop yields could translate to increased food security, to higher incomes from marketed output, or to some combination of both. However, trade-offs between higher yields and additional labour costs are scale-sensitive and cannot be realised by all small farmers. Using a standard recommendation of 100 kg. diamond phosphate and 200 kg. of urea per hectare of maize, Christensen has estimated a yield increase of 6 kg. maize grain equivalent for each kilogramme of nutrient applied.<sup>60</sup> At an assumed farmgate price of N0.23 per kilogramme of nutrient

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<sup>56</sup> Swindell, *Farm*, pp. 139-150; citation p. 142.

<sup>57</sup> *Ibid.*, p. 144.

<sup>58</sup> Ruthenberg, *Innovation*, p. 45.

<sup>59</sup> Olayide and Idachaba, 'Input', p. 183.

<sup>60</sup> Christensen, *Final Report*, p. 60.

and a market price of N350 per ton of maize, Christensen also estimated a net profit of N8.13 for every naira invested on fertilizer.<sup>61</sup> In addition to this attractive profit ratio, Christensen forecast a 'net profit due to fertilizer use of N3.4 million' if fertilizer consumption expanded to 4,455 tons in 1985.<sup>62</sup> His enthusiasm was such that he recommended that these estimates '*should* be maintained over the years, whenever alterations in fertilizer or crop prices are made by the Project, the State or the Federal authorities'.<sup>63</sup> Christensen's movement from statistical projection to policy prescription may or may not be cavalier, the question though is whether (or how far) his projections *could* be sustained in real-life circumstances.

On available evidence, the projections are unsustainable. For one, the FAO's price estimates are higher than Christensen's assumed average cost of a kilogramme of nutrient by at least two-thirds. Moreover, between one-quarter and one-third of small farmers may have been unable to buy fertilizer for economic reasons. But some who could have often avoided fertilizer use. Some farmers who had applied fertilizer in the recent past may also have reduced their demand for the input. One example of the latter is provided by settlers at Igede farm settlement who in 1992 refused to crop their mechanized plot allotments as part of their effort to avoid fertilizer use.<sup>64</sup> According to the settlers, fertilized plots are overcome by undergrowth and bush much sooner than non-fertilized plots, creating an additional demand for farm labour. This argument is not new. Early green manuring research in southern Nigeria foundered in the 1930s partly because farmers could not meet the additional manure-induced demand for extra labour at peak season.<sup>65</sup> Similar arguments featured prominently in the critique of Western Nigeria's farm settlements. I shall return to this point shortly.

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<sup>61</sup> *Ibid.*

<sup>62</sup> *Ibid.*, pp. 60-61.

<sup>63</sup> *Ibid.*

<sup>64</sup> Interview with settlers, March 1992.

<sup>65</sup> CSO 26/4/34177 NAI. Minute 2758/DA/6A of 16 May 1938 by J. R. Mackie, Director of Agriculture.

Settlers were also concerned with the productivity of mechanized plots. They told me that the mechanized plots may have lost much of their natural productive properties because they have been cultivated continuously. Such plots, the settlers argue, require increasing or at least consistent doses of fertilizer to assure reasonable productivity. There was therefore a real risk of lower than average yield per unit of mechanized land in the settlement if fertilizer was either not applied at all or was not applied in sufficient quantities. The same point has been made in respect of one of the project's seed multiplication plots at Osin-Ekiti, some six kilometres south of Ikole-Ekiti.<sup>66</sup>

The settlers' decision to abandon such plots constitutes the line of least resistance but also suggests two important points. First, as far as settler-respondents were concerned, mechanized plots symbolised state efforts to draw them into what may be called the 'fertilizer trap'. Since the abandoned plots were prepared on a group basis by the state government, which is also the 'landlord', individual settler-tenants could not opt out of the mechanization scheme or refuse to pay their share of the cost of joint services. Igede's settlers have however avoided the 'fertilizer trap' successfully by not cropping the mechanized plots.

The use of fertilizer also represented real risks to settlers and small farmers generally. For example, food farmers could not be sure of selling their crops profitably, if at all, in the event of a bumper harvest from generalised fertilizer application.<sup>67</sup> As the FAO had rightly acknowledged, 'food crops...are generally subject to fluctuating, uncertain low prices...inadequate marketing facilities and high selling costs and consequently low returns...' vis-a-vis export crops.<sup>68</sup> Indeed, 'domestic food production does not attract international capital and management as export crops do';<sup>69</sup> in the present case, prices as well as marketing infrastructure are skewed in favour of crops with large global market, such as rice and maize, and against local food crops, for example yam and

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<sup>66</sup> Interview with ex-Project Manager, 30 March 1992.

<sup>67</sup> Cf. Lipton with Longhurst, *New Seeds*, p. 29.

<sup>68</sup> FAO, *Agricultural Development*, p. 199.

<sup>69</sup> Olayide and Idachaba, 'Input', p. 181.

cocoyam. In any case, EAADP's plan did not include a minimum guaranteed prices scheme unlike some of its antecedents. Funtua ADP had employed the scheme to buy up a bumper maize crop in 1979/80, after the Nigerian Grains Board had failed to meet its obligations as a buyer of last resort.<sup>70</sup> Apart from rescuing local maize growers from becoming victims of their own success, Funtua ADP also redressed the immediate disincentive effect on potential production of sharp price decreases induced by rising supply from small farmers.

Input supply infrastructure was also weak and largely unreliable. Indeed, neither the project nor ODSG could have provided adequate fertilizer supply if settler-tenants had chosen to crop their mechanized plots or if a large number of small-scale farmers in the project area had adopted fertilizer *en masse*. In 1980-82 for example, 'fertilizer use... was practically nil due to non-availability in the [project] area and a total lack of supply by Ondo State [Government].'<sup>71</sup> One obvious reason for this is the inefficiency of Nigeria's central fertilizer procurement machinery, established within the Federal Ministry of Agriculture in 1976/77, or of the complex delivery system spawned by it.<sup>72</sup> According to an 'anonymous and undated' complaint from former Bendel State (now Edo and Delta States),

...all the fertilizer were purchased centrally in Lagos, with the result that the actual needs of individual states received little attention. Thus, [NPK] 20:0:20 and 15:15:15 which were most in demand by our yam and maize farmers were supplied in less quantity, while those we did not need were dumped on us in large quantities, such as muriate of potash and calcium magnesium sulphate.<sup>73</sup>

The underlying factor though is the foreign-exchange intensive character of fertilizer in Nigeria and the conflicting pressures this has triggered. Given the limited supply of hard currency in the economy, fertilizer purchases have invariably reduced foreign exchange

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<sup>70</sup> *Ibid.*

<sup>71</sup> Christensen, *Final Report*, p. 55; J. A. Olujobi, 'Review of Input Supply and Distribution Arrangements in Ekiti-Akoko ADP', in Feldman and Idachaba, *Crop Marketing*, p. 176.

<sup>72</sup> Okorie, 'Recent Experiences'; Olayide and Idachaba, 'Input', pp. 174-175.

<sup>73</sup> Cited in Okorie, 'Recent Experiences', p. 112.

allocation to alternative ends, for example the procurement of industrial raw materials. Yet, if the overriding need for higher output and increasing returns to producers justify foreign exchange allocations for fertilizer procurement, the policy infrastructure has often generated contrary outcomes. For example, the relative overvaluation of the naira prior to 1986 meant that those with access to imported fertilizer became automatic recipients of massive transfers from public funds. Such beneficiaries have often included rent-seeking civil servants or businessmen with an eye for windfall profits, both united by shared indifference to the efficiency of agricultural production.

In any case, local production capacity for fertilizer was practically zero until the 1970s, when nearly all the fertilizer consumed in Nigeria was still imported.<sup>74</sup> In 1975, a superphosphate plant began operations in Kaduna; a second plant for nitrogenous fertilizer was also commissioned in Onne in the southeast in the late 1980s. Local fertilizer production has averaged 36,000 tonnes per annum in 1976-84 and about 250,000 tonnes in each of four seasons to 1990/91.<sup>75</sup> Exports have however increased rather sharply, from near zero up to 1987/88 to an average 364,000 tonnes per annum to 1990/91. Imports have amounted to over 200,000 tonnes each year for the same period. Local supply of fertilizer has perhaps depended less on aggregate domestic demand and more on the allure of unregulated and untaxed incomes from external markets if, as is likely, fertilizer exports have been conducted through informal channels to neighbouring West African countries. The main determinant, however, is Nigeria's import capacity, which has declined as a result of lower foreign exchange earnings from oil sales after 1981 as well as increasing debt obligations since the mid-1980s. According to CBN/NISER figures, fertilizer consumption declined by 39% to 639,840 tonnes in 1982 alone and remained below one million tonnes each year for much of the 1980s.<sup>76</sup>

The impact of fertilizer use on agricultural resource regeneration in Nigeria has been no

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<sup>74</sup> Based on my computation of figures for 1980/81 through 1986/87, from FAO, *FAO Fertilizer Yearbook*, 41 (1991), Tables 26-29, pp. 110ff. Cf. Olayide and Idachaba, 'Input', pp. 173-174.

<sup>75</sup> Figures for 1976-84 computed from Okorie, 'Recent Experiences', p. 112; 1986-90 figures are based on FAO's estimates, but much of entries on Nigeria are classified as 'unofficial'.

<sup>76</sup> CBN/NISER, *Impact of SAP on Nigerian Agriculture and Rural Life*, Vol. II (Lagos, 1992).

less problematic. Contrary to FAO advice, fertilizer has so far been applied without adequate soil testing.<sup>77</sup> Nor have there been sustained attempts to match particular fertilizer compounds to particular soil properties or nutrient profiles in particular ecological zones.<sup>78</sup> Christensen observed that NPK 15-15-15 'is in most cases not the most adequate NPK fertilizer...due to inadequate nutrient ratio.'<sup>79</sup> Yet, a survey of 396 households in Ondo State has suggested that NPK 15-15-15 accounted for 70% and 59% respectively of fertilizer channelled through the project in 1989/90 and 1990/91.<sup>80</sup> Reference has already been made to the acknowledgement by the World Bank that soils in the Ekiti-Akoko area have very low productivity potential under continuous cultivation. A mechanical analysis of 465 soil samples also suggests that on average, soils from Ekiti-Akoko area comprised a 78% sand component, 13.4% silt, and 8.3% clay.<sup>81</sup> Given these considerations, Igede settler-tenants' decision to abandon mechanized plots and instead cultivate virgin or fallow land may very well help to promote local eco-balance.<sup>82</sup> The settlers' action was feasible mainly because of low man-land ratios, but continuous cultivation could easily disrupt nutrient regeneration, decrease land productivity, and make fertilizer application inevitable in the long-term.

The general trend, therefore, has been for small farmers to adopt improved seeds without fertilizer. There is indeed some evidence of crop substitution in the villages where I conducted field surveys in 1992. For example, 10% of my respondents claimed to have bought improved seeds from the project in 1991. Between one-third and half of the seeds which an additional 62% of respondents claimed to have obtained from previous harvests and from friends may also be improved strains from the project or from elsewhere, more

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<sup>77</sup> FAO, *Agricultural Development*, p. 199.

<sup>78</sup> Christensen, *Final Report*, p. 55; Olayide and Idachaba, 'Input', p. 176; interview with ex-Project Manager, March 1992.

<sup>79</sup> Christensen, *Final Report*, p. 56.

<sup>80</sup> Computed from ODSADEP, 'Report for 1989/90 and 1990/91 Supplementary Fertilizer Surveys', Internal Briefing Paper, Tables III, p. 4; and Table IV, p. 5.

<sup>81</sup> Computed from Christensen, *Final Report*, Table 17, p. 57.

<sup>82</sup> For an early commentary, see G. C. Dudgeon, *The Agricultural and Forest Products of British West Africa* (2nd. ed. 1922).

so in view of the outcomes of the project's outgrowers' scheme described in chapter 6.

'Ègè Ekiti-Akoko' (i.e. cassava from Ekiti-Akoko project's stem cuttings) is particularly common in the project area. According to my respondents, project cassava matures early at nine months; but it tends to produce a higher ratio of stems to tubers than do older cassava strains. Project cassava is also relatively leafy and forms 'excessive' canopy. These canopies reduce labour exertions on weeding but could easily deny subsidiary or cover crops access to solar energy and make multiple intercropping less productive. There is a conflict of strategy here, for example between a high turn around of land through early maturation of a staple crop on the one hand, and the advantages of food security and lower risk of crop disease infestation which multiple intercropping offers on the other.<sup>83</sup> While traditional crop varieties are not being abandoned altogether as Ruthenberg had hypothesised,<sup>84</sup> that possibility cannot be ruled out in the distant future. At the moment, local farmers have been combining HYV seeds with 'traditional' or unimproved strains, often without complementary input support.

Most farmers attempt to get around this difficulty by growing a number of older cassava varieties as well as the project's improved strains. Various respondents made specific reference to two older strains. The first is known locally as *Ìbàdíl'èruwà*, that is 'the "heavy load" [i.e. yield] is in the bottom [below the soil surface].' *Ìbàdíl'èruwà* matures over twelve months and is believed to produce better yields than other traditional varieties. It is also described by my informants as less leafy than EAADP's improved cassava strain. The second widely grown cassava variety is called *Ègè Ìjèsà* because, according to local farmers, it was introduced into the local economy through the Ilesa area. This strain takes up to eighteen months to mature, six months longer than *Ìbàdíl'èruwà*; but it is believed to be more resistant to adverse agricultural conditions including drought and pests. *Ègè Ìjèsà* is also believed to facilitate the replenishment of soil nutrients.

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<sup>83</sup> For general analysis, see Ajibola Taylor, 'Mixed Cropping as an Input in the Management of Crop Pests in Tropical Africa', *AE*, II, 4 and III, 1 (1977), pp. 111-126; and Martin U. Igbozurike, 'Against Monoculture', *PG*, 23, 2 (1971), pp. 113-117.

<sup>84</sup> Ruthenberg, *Innovation*, pp. 45-46.



By cultivating both the project's improved seeds and older strains, local cassava growers seek to achieve a trade-off between early maturation and better yield on the one hand, and resistance to drought and pests and ultimately, lower risk of starvation from crop failure on the other. The literature on peasant farming is replete with examples, such as those reported on Northern Nigeria by Norman, of experiments with new and existing crop varieties to determine crop combinations that optimize peasant resources by minimising risk and increasing food security. Lipton has also reported that peasants in Kavathe village in India combine high-income millet seeds with less valuable but more drought-resistant bean-sprouts to achieve a trade-off between monetary profit and food security. In Sierra Leone, according to Paul Richards, farmers mix rice with cassava, millet, maize, and guinea corn. Rice-guinea corn mixtures are however risky: if planted too thickly, guinea corn plants form shades that could lower rice yields. With careful spacing, however, this mixture averts hunger in the average rice-farming family; in some cases, it has also helped to conserve rice stocks with which labour employed for ploughing in a subsequent season can be fed.

In the present case, however, HYV seeds are often grown with little regard for recommended practices. This denies the seeds the full complement of support like fertilizer and spacing and could translate to sub-optimal returns to the respondents concerned. The selective adoption strategy, however, allows new crop varieties to be added to the local cropping complex with minimum, if any, disruption to existing farming systems. To this extent, experimentation of the kind reported by my respondents has enabled small farmers to avoid some of the transaction costs outlined earlier. The implied sequencing cannot itself tilt the balance against possible adoption of project recommendations in the long term. In the short and medium terms, however, selective adoption has reinforced peasant autonomy and certainly slowed down the adoption process. Since ADPs lack ultimate control over peasant access to productive factors, especially land, 'the crop has [had to be] taken to the peasant..instead of taking the peasant to the crop.' This may have reduced the project's impact on the local cropping complex, but it has also created opportunities for farmers to mix old and new seed varieties, enabling farmers to increase their average crop yield without necessarily increasing the risk of crop failure.

## 7.5 Livestock Production

The Ekiti-Akoko project's livestock programme sought to continue the colonial tradition of encouraging 'mixed farming' by small-farmers, albeit on a more capital-intensive, larger scale. This section assesses EAADP's livestock development programme in the context of Ondo State's semi-traditional livestock economy. The project's scheme, it is argued, fared badly because of a combination of factors, including design mistakes as well as macro-economic difficulties beyond the control of project management.

In design, EAADP's integrated approach to livestock farming took at least three forms. The first involved poultry-keeping and maize-growing and sought to assist farmers to 'grow sufficient maize for their poultry, and feed the poultry with home-grown maize', thus reducing dependence on imported feed and promoting backward integration in the project area.

The second form was poultry and fish farming. The project's objective was a supply-side attempt to boost demand for meat and eggs in an area, which, as I show below, was widely remarked, until the 1950s at least, for generally low consumption of animal protein. The final form was inclined to the longer term, and involved a combination of duck and fish farming. According to Christensen, 'up to 20% of the protein fed to ducks is left in [duck] droppings which form an excellent fish food.' Moreover, 'goats kept in pens and fed with lacuna and crop waste would be efficient and profitable meat producers.' In sum, the project sought to improve local farming systems by encouraging the general use of animal droppings either as feed or as organic fertilizer as well as promote animal protein intake in the area. In practice, project resources were devoted to poultry farming, because it was easier to establish, because poultry-keeping could generate immediate or at least short-run economic and social benefit both for the project and for the local economy, and above all, because of the force of tradition in policy-making.

An early example of a state-induced small-scale poultry farm was that at Awka, south-eastern Nigeria, in the 1930s. On 8 October 1934, the colonial government had inaugurated a Young Farmers' Club at the Agricultural School in Awka, with 48

members and five oil-palm plots of 154 trees each. From a £7 loan from the school's farm account, 'two pure Rhode Island Red cocks and twenty native hens' had been purchased and two poultry houses built. Three months later, five hens had hatched 35 chickens, six were sitting on eggs, and a few more were laying eggs. Such, it seemed, was the ease with which tradition and modernity was reconciled in poultry keeping, to remarkable profit by colonial officials!

It has often been argued that less well-off Yorubas consume very little fish and meat and are therefore prone to animal protein deficiency. Johnson had observed, for example, that 'the poorer people are mostly vegetarians, except when animals are slaughtered for sacrifice they seldom partake of meat.' Faulkner and Mackie have also painted a near desperate meat supply situation in southern Nigeria and contrasted same with the relative abundance of meat in the north. In their view,

meat is very scarce indeed in the south and, in order to obtain animal food, some tribes will eat rats, dogs, and even snakes. In the north, meat, although not a staple article of the daily diet of the ordinary farmer, is usually obtainable; and is eaten occasionally by everyone with a frequency proportionate to his means, for it is the favourite luxury.

Faulkner and Mackie's opinions are valid but more reflective of pre-colonial times than of the 1930s. The views also reflect the limited scope of the formal economy in the 1930s, on account of which a substantial proportion of economic activity, and in this case dietary patterns are simply explained away or assumed not to exist.

In fact, the end of the Yoruba wars and the establishment of colonial rule had opened up road transport and boosted north-south trade in cattle and other livestock. In 1936-40 (excluding 1937, for which no data were provided) for example, between 73,500 and 100,840 head of cattle and an equal number of sheep crossed the Niger river each year in the long march to the coast. An additional 23,590-37,500 heads of cattle and 11,000-20,000 sheep and goats per annum left Kano by rail for the south in 1936-39, with sheep outnumbering goats by 6:1 in 1936 and 57:1 in 1940. How much of this ended in Yoruba cooking pots is difficult to determine, but Bascom had suggested that herdsmen who journeyed by foot passed through many important Yoruba towns, possibly selling

livestock and certainly disposing of diseased and dying animals at discounted rates. Increasing cash incomes from cocoa sales had also boosted purchasing power, making it probable that many more Yoruba families had meat in their diets in the 1930s than Faulkner and Mackie have suggested.

Even in earlier decades, access to meat and to animal protein may have been wider than presumed. Yorubas have generally regarded rats, snakes, and other non-domestic animals (including fowls) as wild game to be hunted down for consumption as *eran ìgbé* or 'bush meat'. Hence, as Galletti, Baldwin and Dina have remarked, hunters and their families as well as residents in country areas with large unsettled forest surroundings possibly consumed more meat than the traditional elite. The same would most probably apply to families in or around the coastal areas where fishing has been a calling or a favourite pastime. In any case, animal husbandry has been an intimate part of traditional agriculture in Yoruba society. To quote Johnson once again,

every woman, whatever her trade may be, is expected to keep a few chickens and a goat or two from which she derives small income for housekeeping...Aged women who reside in the farms also employ their time in...tending poultry, goats and sheep for the market.

While the extent of farm residency has probably declined over time, the Yoruba farming family still combines crop farming with traditional livestock farming.

In Ondo State, the average rural farming family usually keeps some poultry and a mixture of domestic animals like goats, sheep, and pigs. Cattle ownership is less common and fish farming rarer still for ecological as well as economic reasons. According to official estimates, 61% of all farming families in Ondo State kept chickens in 1978; 44% and 13% reared goats and sheep respectively, while only 1% owned cattle. In the same year, 63% of estimated farming families in the Ekiti-Akoko area kept chickens, 49% and 19% reared goats and sheep, while 1.2% owned cattle. On average, each Ekiti-Akoko farming family owned five chicken, three goats, an equal number of sheep, and two head of cattle. Together, Ekiti-Akoko farming families accounted for 28% of the estimated 473,000 chickens in Ondo State in 1978; they also owned 41% and 57% of the estimated total number of goats, sheep, and cattle in the state. The Ekiti-Akoko area as well as the

rest of Ondo State in general thus had a flourishing livestock economy in the pre-project period.

Admittedly, the livestock sub-sector has remained largely traditional. In other words, most farming families keep livestock without elaborate provisions for feeding and housing. However, local trade in livestock had also expanded and was well established by the 1970s. Alao's survey has shown, for example, that many of the 190 respondents in 90 Ekiti towns and villages established modern poultry farms between 1963 and 1974. The survey however reported inadequate supply or non-availability of essential ingredients among a sizeable proportion of respondents. For example, over one-fifth of respondents had considered shortage of feed mixes a serious problem. Another 16% had emphasised problems regarding marketing and demand for eggs as well as chicken. Alao's survey had also highlighted poor yields and losses occasioned by diseases as well as pilfering. The point remained, nonetheless, that commercial poultry farms had emerged to compete with traditional poultry-keeping in Ekiti Division. The same is likely to have been true of other parts of Ondo State.

The 1960s and 1970s also saw a steady rise in the market value of cattle, sheep, and goats. According to official estimates, the average price of a cow increased by a nominal 60-150% from N50-100 in 1966/67 to N125-160 in 1975/76. Sheep and goat prices also rose by an estimated 385-470% and 330-560% respectively over the decade. Local demand for livestock increased even more dramatically in the 1970s. As Table 7.11 shows, about 16,500 cows and 5,000 sheep and goats were slaughtered each year in approved locations in the state in 1966-76. Imports (mainly from Kwara State to the north and Bendel to the east) ranged from 57-83.5% up to 1971/72, declining first to 40% and to less than 30% thereafter and averaging 45% of cattle slaughtered per annum.

In contrast, goat and sheep imports became statistically significant only in 1969/70, when imports rose sharply from about 3% to 51% of the number slaughtered in approved locations. The import ratio increased to 76% two years later, after which the number of goats and sheep slaughtered on approved sites fell below import levels by between 80% and 283%. Only three-quarters of the estimated number of sheep and goats imported into

**Table 7.11**  
**Imported and Slaughtered Livestock in Ondo State, 1966-76**

(1) Year	(2) Cattle			(3) Sheep and Goats		
	(a) N <sup>a</sup> imported	(b) N <sup>a</sup> slaughtered	(c) a as % of b	(a) N <sup>a</sup> imported	(b) N <sup>a</sup> slaughtered	(c) a as % of b
1966/67	5,034	7,814	64.4	180	5,447	3.3
1967/68	6,307	9,328	67.6	85	5,870	1.4
1968/69	11,271	13,504	83.5	122	3,381	3.6
1969/70	8,282	13,109	63.2	1,337	2,608	51.3
1970/71	8,510	12,706	67.0	2,175	3,309	65.7
1971/72	8,758	15,332	57.1	3,148	4,118	76.4
1972/73	7,628	19,265	39.6	5,325	2,954	180.3
1973/74	6,428	24,142	26.6	11,457	7,592	151.0
1974/75	5,606	27,848	20.1	20,558	9,430	218.0
1975/76	5,619	21,622	26.0	21,583	5,633	383.2
Total	73,443	164,670	44.6	65,970	50,342	131.0

Compiled from: ODS, *Digest of Agricultural Statistics, 1976* (Akure, n.d.), Tables 24 and 25, pp. 27-28.

the state in 1966-76 were thus slaughtered in approved locations. Cattle imports constituted less than half of the number slaughtered in approved sites in 1966-76, while the number of imported sheep and goats exceeded the number slaughtered in approved locations by a remarkable 31%. It is likely, therefore, that some livestock imported into Ondo State were 're-exported' to neighbouring states or otherwise retained to boost local reproduction. The essential point, though, is that meat consumption was substantial and enlarged greatly in the 1970s, perhaps as a result of the oil boom.

Yet, the above is only a partial picture of the local livestock economy. Because it is based on information from officially-designated slaughter houses, Table 7.11 excludes the number of animals slaughtered unofficially. These include sheep and goats, and perhaps cattle, that have been imported through unmanned entry points used often by small scale traders as well as the large, unrecorded trade in local poultry. A figure cannot be put on this aspect of the livestock trade; it is likely, however, that informal trade in live animals, including fowls, would increase existing estimates by between half and three-quarters.

The problem with EAADP's livestock programme therefore, was not that it was commercially oriented; rather that the project plan understated the vitality of the local livestock economy or assumed away its existence, misread local tastes, and thus opted

for overly optimistic demand projections for chicken. As I detail below, the foregoing considerations supported a relatively large-scale, capital-intensive poultry programme well beyond the absorptive capacity of the local economy.

The project sought to produce chickens and eggs in large numbers either by itself or through farmers assisted by it. Its target was to establish 200 egg production units of 500 layers each over five years, to be raised from day-old chicks in modern battery cages and poultry houses. A 32,000 capacity hatchery and breeding farm, comprising 2 rearing houses and 4 layer houses was thus established and stocked with imported parent stock. EAADP subsequently reared the New Hampshire parental stock for egg production because, according to the Project Manager, it could breed continuously for 5-6 years 'without yield depression and without import of new parent stock' and also because its brown egg colour was preferred locally. In turn, the White Plymouth Rock parent stock was reared for meat production.

Moreover, ODSG handed over to the project a feedmill at Ado-Ekiti with daily processing capacity of six to eight tonnes. This had been intended to promote backward linkages in the programme, for example by enabling EAADP to produce chicken feed from maize grown on its own farms or by its outgrowers, thus assuring feed supply to poultry farmers and also avoiding some of the input supply problems raised in Alao's survey. Finally, the project had imported a chicken slaughtering plant with freezing facilities at a cost of £7,000 in September 1984 to increase its capacity for meat processing and also increase local meat supply. Apart from putting the major aspects of the production process under project control, EAADP's planned involvement in meat processing could add value to its own as well as its customers' products, and give both a competitive edge over locally-bred chicken.

The foregoing strategies seem credible and well thought-out enough, but they also suffered from severe design constraints and macro-economic difficulties. To begin with, the capacity of the project's hatchery was well beyond existing demand for day-old chicks. The project was thus compelled to sell fertile eggs for consumption because of low local demand for day-old chicks. Worse still, EAADP's hatchery would still have

been underutilised if the breeding farm was employed at full capacity. Production targets were therefore overly ambitious.

Nor is it clear whether EAADP's choice of 500-bird units was justifiable in the circumstances. In 1972, Olayide and Olowude had supported 500-bird units in an input-output analysis of optimum enterprise combinations for small farmers in Western Nigeria's savanna belt. But the study's three enterprise combinations (i.e. poultry-rice-arable crops; poultry, no rice, arable crops; and poultry, tobacco, arable crops) were predicated on the prior existence of a fully established and operational framework of integrated farming rather than a situation in which most farmers were largely starting from the scratch, as in Ekiti-Akoko. Olayide and Olowude assumed, for example, that the small-scale farmer had

30 acres of land available for use each year. Of this acreage, 25 acres are to be used for the various commercial crop enterprises and the remaining 5 acres for family consumption and/or subsidiary or supplementary crop enterprises...The farmer could hire machine services from the "Tractor Hiring Unit"...obtain casual labour during harvesting and other labour-demanding seasonal operations...Feeds for poultry could be purchased at all times and part of the maize enterprise could be used to feed the birds...

As indicated in chapter 5, cropped acreages per farmer in the Ekiti-Akoko area are much less than that specified above. Input supply was unreliable (of which more shortly) while local demand for tractor services was insufficient to sustain tractor services on a smaller scale, as the next chapter shows. Even if assumed cropped acreages per farmer and poultry's derived share of 54-82% of total projected revenue in the programmes were halved, most small-scale farmers in the Ekiti-Akoko area would still have been unable to meet the above conditions. Olayide and Olowude's statistically elegant analysis was therefore inapplicable in Ekiti-Akoko's circumstances. The project's prescribed 500-bird units also did not take full account of the cost of infrastructure as well as the capacity of local farmers to raise funds for pre-production costs. By definition, therefore, the average small-farmer had been rendered ineligible to participate in the project's livestock programme.

To expand access to the programme by the local population, the following changes were



made to the project plan:

- (a) A standard unit was to comprise 250 layers rather than 500 as the SAR had prescribed.
- (b) Intending poultry farmers were encouraged to select between the battery cage system and the deep litter system. EAADP argued that the former was more expensive and not necessarily better than the latter, thus effectively rejecting the SAR's battery cage system.
- (c) EAADP supplied farmers with 16-week old pullets from its farms rather than let them raise layers from day old chicks. The latter are believed to be more susceptible to disease and production losses and offered little security to small investors.
- (d) Family production units of 25 layers were recommended in addition to commercial production to broaden the appeal of the programme.

The project also offered additional incentives to participants in the poultry programme. For example, farmers who combined livestock production with crop farming were exempted from a rule which barred the sale of fertilizer on credit. As indicated earlier, in 1980, the World Bank argued that public policies on farm input subsidies encouraged uneconomic use of inputs and intensified distortions in Nigeria's agricultural markets.

The decision to grant fertilizer credit to integrated farmers amounted to a concession, or perhaps necessary evidence of operational flexibility in the face of a commitment to market-led change by the project. But it also has implications for access to project benefits. By redefining eligibility for fertilizer credit, the exemption rule had merely excluded non-poultry farmers from competing for available supply, thus increasing the potential supply of fertilizer as well as the implicit subsidy associated with it, to fewer farmers. Since integrated farmers are likely to have been well-off individuals in relation to the total farming population and even in the context of the enlightened farming community, the incentive could have channelled benefits to those best able to pay economic rates for project services. EAADP could also have unwittingly encouraged rent-seeking to the extent that beneficiaries of the exclusion clause could have abused the privilege by re-selling their fertilizer allocations at market prices. It is possible, therefore, that EAADP had merely subsidised the privileged, thereby intensifying existing socio-economic inequalities in the project area.

This position is supported by official data on the project's credit operations. Poultry farmers benefited more than crop farmers did from project credit in 1983-86, even though the former constituted a very tiny proportion of loan beneficiaries. As Table 7.12 shows, credit granted to poultry farmers averaged N1,902-3,327 per annum in 1983-86. This is close to the N2,610 available to the average outgrower in 1984 but several times over and above the N49-510 granted to crop farmers in 1983-86. To be sure, higher credit to poultry farmers may have reflected the cost structure of poultry-keeping vis-a-vis the more traditional crop farming; it is also possible that many participants were starting from scratch and had to raise large sums of money to procure basic infrastructure.

**Table 7.12**  
**Credit Granted to Farmers, 1983-86 (average per recipient, current Naira)**

Year	Type/Purpose of credit			
	Crops	Poultry	Outgrowers <sup>a</sup>	All types
1983				
Value	49.0	2,235.0	-	239
Index <sup>b</sup>	20.5	935.1	-	100
1984				
Value	177.0	1,802.0	2,610	373
Index <sup>b</sup>	47.5	483.1	700	100
1985				
Value	337.0	3,434.0	-	487
Index <sup>b</sup>	69.2	705.1	-	100
1986				
Value	592.0	2,667.0	-	913
Index <sup>b</sup>	64.8	292.1	-	100
Annual Average				
Value	288.8	2,534.5	2,610	503
Index <sup>b</sup>	57.4	503.9	518.9	100

Notes: <sup>a</sup> Operated only in 1984. <sup>b</sup> Average value=100.

Computed from: EAADP, *Internal Completion Report*, p. 143.

However, participating farmers were few and far between. As Table 7.13 shows, recipients of poultry credit numbered only 106 in 1983, declined sharply to 20 in the following year, and thereafter to only eleven each year. At only 148, poultry loans accounted for 8% of the number of all loans granted by the project in 1983-86 but took up 49% of the value of all credit over the four-year period. This raises the question of

equity between the minority of poultry farmers and food-crop growers. Given that commercial poultry could create new markets for imported feeds, or for yellow maize which is suitable for chicken-feed but disliked by consumers of corn, the question must also be asked whether EAADP was not seeking to channel local production along directions preferred by the World Bank and international capital without regard to local tastes.

**Table 7.13**  
**Number of Approved Loans, 1983-86 (by type)**

Year	Type of credit			
	Crops	Poultry	Outgrowers <sup>a</sup>	All types
1983				
N <sup>a</sup>	828	106	-	934
% of total	88.7	11.3	-	100.0
1984				
N <sup>a</sup>	589	20	39	648
% of total	90.9	3.1	6.0	100.0
1985				
N <sup>a</sup>	217	11	-	228
% of total	95.2	4.8	-	100.0
1986				
N <sup>a</sup>	60	11	-	71
% of total	84.5	15.5	-	100.0
<b>Total</b>				
N <sup>a</sup>	1,694	148	39	1,881
% share	90.0	7.9	2.1	100.0

Note: <sup>a</sup> Scheme operated in 1984 only.

Source: Same as Table 7.12.

More damage was done to EAADP's poultry development programme, however, by macro-economic difficulties than by equity considerations. For example, the programme could not take off until 1982, the second year of project life because the required equipment could not be imported on time. EAADP's in-house egg production experiment with 250 layers in each of the five local government areas was also far from promising. In 1982, according to Christensen, egg production ratios (the number of eggs expressed as a percentage of number of point of laying birds) ranged from 0% in Ekiti East through 19% in Akoko North LGA to 48% in Akoko South, averaging 24% for all LGAs or 30%

if Ekiti East was excluded. The number of production units increased subsequently by 248% to 87, resulting in an improved average egg-production ratio of about 50% for all LGAs in 1983 and 1984 (30 June). Higher egg- production ratios after 1982 thus appear to have been achieved through increases in the total number of layers rather than through increasing output per layer.

At the wider level, the project established 250-layer units for only twelve farmers in 1982 instead of the expected 50. In 1983, the number of participating farmers dramatically increased to 108, probably because of unrealistic profit projections, or because of the incentives that the project offered to poultry farmers. The roll however declined to twelve almost immediately afterwards. By late 1983, the 'programme...gradually reached a disastrous situation due to lack of feed ingredients for the Project's feed mill, poor quality and low availability of commercial feed...[and their] prohibitive prices.' By June 1984, new farms were not being established. On the contrary, 'low productive farmers' were being assisted to sell their birds and only 32 farmers were being supported in anticipation of improved feed supply and price levels. The project also tried to obtain permission to import feed ingredients but had not succeeded by June 1984. In 1985, the livestock programme had no participating farmer in the project area!

As a whole, production of poultry birds was low. Contrary to official projections, local demand for frozen chicken was low. This factor, and macro-economic difficulties meant that the project's chicken slaughter plant had neither sufficient supply of raw materials nor a viable outlet for its end-product. The plant was thus left unused for much of EAADP's life, occasioning losses on capital invested but also leaving a lesson on the dangers of technological overkill in largely peasant economies.

## **7.6 Conclusion**

The Ekiti-Akoko project's crop as well as livestock production programmes cannot be described as spectacular successes. If anything, both programmes were predicated on false or misleading assumptions about existing practices, about the ability and willingness of local farmers to adopt prescribed recommendations, and about social and technological change in small-scale agriculture.

The 'blueprint' mentality has almost always blinded project designers and, in some cases, management teams, from local socio-economic circumstances and has been widely identified as a self-destructing attribute. The bureaucratic mind-set often thrown up by the blueprint also runs contrary to the careful and calculating experimentation preferred by small, cash-poor farmers. For most, if not all such farmers, the introduction of new, divisible inputs like fertilizer and improved seed strains means 'new opportunities...but also new risks, costs, and changing demands.' Farmers' response in the present case has been to adopt individual components, especially improved seeds, without the supportive inputs like fertilizer. The foregoing analysis also suggests clearly that entire seed-fertilizer packages as such have been ignored by local farmers.

The above conclusion is consistent with findings on peasant responses to new seeds in other parts of Nigeria and elsewhere. Reference has been made to Lipton's research on Indian wheat growers and Paul Richards' on Sierra Leonean rice farmers. Eyoh's study of Lafia ADP in Nigeria's Plateau State also draws similar conclusions but seems to have overstated his case by arguing that project operations make 'no noticeable impact on peasant production practices.' Fazoranti's position, that Ekiti-Akoko project farmers have been uncritical and indiscriminating adopters of recommended practices, is even more misleading.

Ekiti-Akoko ADP's achievements in its production programmes lie somewhere between Eyoh and Fazoranti's positions. Its influence on the local cropping complex seemed to have been more manifest on the local cropping complex than on livestock production. Crop substitution by small farmer is indeed a long-term possibility, provided the limited cases of crop mixtures reported by my respondents are sustained, and official claims (accepted largely by small farmers) about the yield capacities of EAADP's improved seeds are borne out by experience. Long-term trends are however dependent on prior, substantial improvements in the macro-economic environment, especially the institutional factors which have, in effect, undermined EAADP's programmes and possibly discouraged minimum risk-taking by small farmers.

## Chapter 8

### Farm Mechanisation

#### 8.1 Introduction

Ekiti-Akoko ADP's demonstration function invariably involved the active promotion of farm mechanisation, defined here as 'all replacement of human muscle power by machines and implements'<sup>1</sup> but excluding draught animals. Owing to insect-borne diseases, the use of bullocks is uneconomic and impractical in Nigeria's forest zones. Hence the transition from 'purely manual techniques to nearly automatic ones'<sup>2</sup> in southwestern Nigeria has excluded animal-drawn ploughs and moved straight from the hoe and machete to tractors. Ekiti-Akoko ADP's mechanisation programme focused on tractors and less complex implements and bio-chemical substitutes for human labour. It had three goals: first, to increase the capital-labour ratio in small farmer factor combinations; second, to encourage demand for mechanization, initially among larger farmers, and ultimately by all segments of the farming population; and finally, to promote the emergence of a private market in tractor services in the project area.

This chapter examines project-induced mechanisation in 1982-91, both in relation to its objectives and in wider historical-comparative context. It is argued, on the one hand, that the project's mechanisation scheme was inherently faulty to the extent that it was predicated on sole cropping. The scheme also suffered severe setback from insufficient support by the local state. On the other hand, the available evidence suggests a considerable potential for technological change in the project area. That potential, it is contended, could not be realised without addressing some of the immediate policy problems that mechanisation throws up in peasant agriculture. Such commitment, it is also shown, underscores the successes of mechanisation in Asia and Latin America since the 1960s.

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<sup>1</sup> Hans P. Binswanger, 'Agricultural Mechanisation: A Comparative Historical Perspective, *World Bank Staff Working Papers* N<sup>o</sup> 673 (Washington, 1985), p. 3. Also in *WBRO*, 1, 1 (1986), 27-56. Subsequent references are to the *Working Papers* version.

<sup>2</sup> *Ibid.*, p. 1.

The argument is developed in five main parts. The next section draws upon the literature on Asian and Latin American experiences to highlight some of the social issues and policy dilemmas occasioned by farm mechanisation. Section three relates these issues to Nigeria-wide experience since the 1920s. Section four details the rise of a private tractor market in old Oyo Division, Western Nigeria, during the 1970s, and draws important parallels between Oyo Division and the Ekiti-Akoko area. In section five, I discuss EAADP's technical service packages and their remarkably poor diffusion among Ekiti-Akoko farmers. Section six analyses the project's tractor hire scheme and its limited achievements, while section seven summarises the discussion.

## 8.2 The Social Imperatives of Mechanisation: A Comparative Overview

The shift from human to mechanical power techniques is widely associated with far-reaching structural change in peasant agriculture.<sup>3</sup> Specifically, mechanisation has been associated with expanded acreages; higher crop yields; increased cropping intensities; more valuable crop combinations; and improved opportunities for on-farm and off-farm employment.<sup>4</sup> In theory, mechanisation can reduce labour turnaround in peasant agriculture by shortening the time it takes to perform labour-intensive farm chores, especially seed-bed preparation. At constant farm acreages, the time saved on these operations implies an increase in labour productivity. It also means that labour is released sooner for alternative uses. A combination of HYV seeds, a better water supply (especially through irrigation systems) and a more productive labour force could easily translate to an extended planting time or a bi-modal agricultural year, to increased cropping intensities, and to a decline in the seasonality of farm operations.<sup>5</sup>

Empirical support for these propositions has however been far less straightforward. As

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<sup>3</sup> Hans Binswanger, Vernon Ruttan with others, *Induced Innovation* (Baltimore, 1978); Prabhu Pingali, Yves Bigot, and Binswanger, *Agricultural Mechanization and the Evolution of Farming Systems in Sub-Saharan Africa* (Baltimore, 1987). Cf. Ruttan and Colin Thirtle, 'Induced Technical and Institutional Change in African Agriculture', *JID*, 1, 1 (1989), pp. 1-45; and Binswanger and Pingali, 'Technological Priorities for Farming in Sub-Saharan Africa', *ibid.*, pp. 46-65.

<sup>4</sup> Eric Clayton, *Agriculture, Poverty and Freedom in Developing Countries* (1983), pp. 161-174. See also ILO, *Mechanisation and Employment in Agriculture* (Geneva, 1973).

<sup>5</sup> Clayton, *Agriculture*, pp. 161-164.

indicated in chapter 7, available accounts of Asian and Latin American experiences since the 1960s are divided on the specific social, economic and structural circumstances as well as implications of mechanisation.<sup>6</sup> The debate suggests clearly that responses to mechanisation differ between countries, between regions or agro-climatic zones in the same country, and even between crops. To this extent, the theoretical advantages of mechanisation may or may not be realised and cannot therefore be generalized. The impact of mechanisation on other variables or on the overall economy is therefore a function of how it affects and is affected by other operative variables in a particular setting.<sup>7</sup>

The employment effect of tractorisation is the most apparent, and, ironically, the most debated, in the literature on Asian and Latin American experiences.<sup>8</sup> On the face of it, few will disagree with the claim that farm mechanisation could generate employment opportunities within and outside agriculture. Inukai has shown, for example, that mechanisation need not be labour-displacing. Using Thailand's experience in the 1960s, Inukai shows that *selective* mechanisation could be labour-augmenting.<sup>9</sup> Since 'farming consists of a series of operations from ploughing the land to marketing the crops', mechanisation could 'increase the total labour requirements per unit of land...[and] create more jobs than it eliminates' if the choice of level and type of technology blends very well with relative factor endowments and/or costs in a given setting.<sup>10</sup>

Such discrimination could be pursued at functional as well as strategic levels. Given

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<sup>6</sup> See, e.g., V. N. Balasubramaniam, *The Economy of India* (1984); B. Glaeser, *The Green Revolution Reconsidered* (1987); Michael Lipton with Richard Longhurst, *New Seeds and Poor People* (1989); and Vandana Shiva, *The Violence of the Green Revolution* (1991).

<sup>7</sup> See e.g. A. E. Deutsch, 'Tractor Dilemma for the Developing Countries', *WC*, 24, 5 (1972), pp. 234-236; and A. U. Khan, 'Agricultural Mechanisation: The Tropical Farmer's Dilemma', *WC*, 24, 4 (1972), pp. 208-213.

<sup>8</sup> See the contributions in ILO, *Mechanisation*; cf. Bruce F. Johnston and John Cownie, 'The Seed-Fertilizer Revolution and Labour Force Absorption', *AER*, LIX, 4 Part I (1969), pp. 569-582.

<sup>9</sup> I. Inukai, 'Farm Mechanisation, Output and Labour Input: A Case Study in Thailand', *ILR*, 101, 5 (1970), pp. 453-473; Michel Cépède, 'The Green Revolution and Employment', *ILR*, 105, 1 (1972), pp. 1-8.

<sup>10</sup> Inukai, 'Farm', p. 453.



relative factor endowments and/or costs, a choice could be made between farm operations to be mechanised and in what sequence and other chores that could be left to manual labour.<sup>11</sup> Official policy could then provide strategic incentives for the selected functional priorities by 'relying largely on biological and chemical innovations that...[are]...land augmenting, excluding or at least discouraging mechanisation that displaces labour.'<sup>12</sup> Selective mechanisation could thus help to achieve a reasonable balance between private profit (from increasing incomes for innovators and fewer farm workers) and wider social objectives, especially rural employment.<sup>13</sup>

In other words, different combinations of labour and capital (in form of tractors) could be substituted one for the other under particular circumstances. Given that land tilling is often the first farm operation to be mechanised, labour displaced on account of mechanised land preparation and cultivation could be re-employed in, say, weeding and harvesting. Given also that mechanisation makes possible large increases in acreage and cropping intensities, the demand for labour on mechanised plots could increase over time. According to Clayton,

in a cash crop/food crop farm system where peak labour demand coincides with the cultivation and planting of food crops, mechanisation can prove to be economic if, by releasing labour from seed-bed preparation, it allows a re-arrangement of the cash crop/food crop ratio, with a resulting increase in the value of output, always provided...the right balance is achieved between the increased revenue and the cost of mechanisation.<sup>14</sup>

The above claims are valid theoretically but would hardly stand close empirical scrutiny. To start with, 'the right balance' between the costs and benefits of mechanisation 'is not merely a technical issue, but principally a political choice which affects the whole social

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<sup>11</sup> *Ibid.*, pp. 462-467; Pingali, Bigot, and Binswanger, *Agricultural*, p. 150.

<sup>12</sup> Keith Marsden, 'Technological Change in Agriculture: Employment and Over-all Development Strategy', in ILO, *Mechanisation*, p. 14.

<sup>13</sup> On how to have it both ways, see Clayton, 'A Note on Farm Mechanisation and Employment in Developing Countries', *ILR*, 110, 1 (1974), pp. 57-62.

<sup>14</sup> Clayton, 'Mechanisation and Employment in East African Agriculture', *ILR*, 105, 4 (1972), p. 311.

structure of the rural economy.’<sup>15</sup> For example, increasing farm incomes depend on wider considerations, such as the balance between cash and ‘subsistence’ or consumption crops on the one hand, and aggregate demand for rising farm output on the other. These in turn hinge on price and fiscal policy on agriculture.

Secondly, the view that labour could move (or be moved) between operations is correct. But there is a time lag between land preparation and weeding during which displaced labour must seek sustenance through subsistence farming (where possible) or through alternative off-farm employment. Except there is a prior existence of landless labourers, or a well developed market for farm labour, or conditions that favour their emergence could be created rapidly, there is a distinct possibility that farm wages would increase in the immediate term. Such increase could be a demand for the re-distribution of the rising value of farm output and/or incomes/profits,<sup>16</sup> or the supply effect of possible movement of labour to industry or to subsistence farming after the first wave of displacements. The synchronic nature of farming means, for example, that a subsistence farmer would be less inclined to take up wage employment during peak season operations, especially since his earnings are likely to be lower than the consumption value of his own crops.

Either way, expanded labour use on mechanised plots is not automatic but subject to important size and price (or cost) constraints. For example, the use of manual labour in weeding operations could become uneconomic on very large farms. Mechanisation also generates new constraints on small-scale agricultural production. To quote Clayton once again,

In traditional peasant agriculture...there [are] limits to the benefits from expansion of the tillage acreage. For beyond a certain point, increased tillage is likely to generate weeding and/or harvesting labour bottlenecks - farm operations which are not commonly mechanised in peasant agriculture...Gains in output are not necessarily forthcoming, and

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<sup>15</sup> Marc Wuyts, ‘The Mechanisation of Present-Day Mozambican Agriculture’, *DaC*, 12 (1981), p. 1.

<sup>16</sup> There is broad agreement on these issues in the literature. See, e.g., John Mellor and Uma Lele, ‘Growth Linkages of the New Foodgrain Technologies’, *IJAE*, XXVIII, 1 (1973), pp. 35-55; G. Motilal, ‘Economics of Tractor Utilisation’, *ibid.*, pp. 96-105; Katar Singh, ‘The Impact of New Agricultural Technology on Farm Income Distribution in the Aligarh District of Uttar Pradesh’, *IJAE*, XXVIII, 2 (1973), pp. 1-11; and Uma S. Singh and Dayanatha Jha, ‘A Note on Efficiency in Transitional Agriculture: A Study of Farms in Rural Delhi’, *IJAE*, XXVIII, 3 (1973), pp. 61-65.

when they are, they tend to fall below expectations or those resulting from field trials.<sup>17</sup>

Moreover, labour could be employed on mechanised farms only so far as labour costs are lower than the cost of capital, or alternatively, or as long as the marginal productivity of labour is higher than or equal to the wage rate.<sup>18</sup> However, these conditions are especially difficult to meet in technology-importing countries, where savings in labour costs from mechanisation are likely to be higher than the marginal productivity of labour because of import substitution and/or rapid mechanisation.<sup>19</sup> Increasing private profits from mechanisation thus co-exists with rising social costs, for example unemployment of unskilled labour.<sup>20</sup>

The question of alternative employment in the rural non-farm sub-sector (where this exists) or in urban-based industry bears directly on wider economic policy as it reflects the skills of the workers themselves. On balance therefore, farm mechanisation is invariably problematic if rural-urban linkages are weak or overly skewed against rural economic interests, or where macro-economic forces cannot cushion the structural shocks which mechanisation almost always provokes in the rural sector.<sup>21</sup> Finally, Abercrombie has shown that it is difficult to translate selective mechanisation to concrete policies and to implement same.<sup>22</sup> Inukai's views are thus more inclined towards the long term, when the multiplier effects of mechanisation have become manifest in other sectors of the economy.<sup>23</sup>

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<sup>17</sup> Clayton, *Agriculture*, p. 164.

<sup>18</sup> Johnston and Cownie, 'Seed-Fertilizer', p. 576.

<sup>19</sup> *Ibid.*, p. 574; cf. B. H. Kinsey and Iftikhar Ahmed, 'Mechanical Innovations on Small African Farms: Problems of Development and Diffusion', *ILR*, 22, 2 (1983), pp. 227-238.

<sup>20</sup> See, e.g., Carl H. Gotsch, 'Tractor Mechanisation and Rural Development in Pakistan', *ILR*, 107, 2 (1973), pp. 133-166. Also in ILO, *Mechanisation*, pp. 129-162.

<sup>21</sup> See Johnston and Cownie, 'Seed-Fertilizer', pp. 537-539; Gotsch, 'Tractor', pp. 160-164.

<sup>22</sup> K. C. Abercrombie, 'Agricultural Mechanisation and Employment in Latin America', in ILO, *Mechanisation*, pp. 74-79.

<sup>23</sup> For a summary, see Clayton, 'Mechanisation', pp. 312-313.

In the short term, the use of tractors or even animal traction automatically displaces human labour from land tilling or from other labour-intensive operation for which alternative power is suitable. A study of rice farming in the Philippines has provided evidence of increased labour use that is unaccompanied by the adoption of labour-saving technologies.<sup>24</sup> Acharya's oft-cited survey of 120 farmers in two districts in India's Rajasthan State suggested, for example, that labour use is higher by 31.7% among farmers adopting HYV seeds and tractors than among non-adopting farmers.<sup>25</sup> Tractor operated farms however employed 27.3% less human labour than non-mechanised farms.<sup>26</sup> Part of this was offset by higher cropping intensities in tractorised farms, estimated at 157% as against 132% in non-mechanised farms. But the differential in cropping intensities is wiped out after adjusting for the effect of cropping intensity on labour employment. In terms of labour employed per unit of cropped area, tractorised farms employ about 37% less labour than non-mechanised farms.<sup>27</sup> Acharya's view has been supported by, among others, Chattopadhyay's more recent study on India;<sup>28</sup> Gill's data on Bangladesh;<sup>29</sup> and Wood's analysis of large farms in Mexico.<sup>30</sup> Abercrombie has also estimated that about three workers were displaced by each tractor in Chile and about four in Columbia and Guatemala in the 1960s.<sup>31</sup> Labour displacement is therefore one of several direct and indirect consequences of tractorisation.

The relationship between mechanisation and higher yields is no less conflicting.

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<sup>24</sup> Keijiro Otsuka, Fe Gascon and Seki Asano, 'Green Revolution and Labour Demand in Rice Farming: The Case of Central Luzon, 1966-90', *JDS*, 31, 1 (1994), pp. 82-109.

<sup>25</sup> S. S. Acharya, 'Green Revolution and Farm Employment', *IJAE*, XXVIII, 3 (1973), p. 35.

<sup>26</sup> *Ibid.*, p. 36.

<sup>27</sup> *Ibid.*

<sup>28</sup> Manabendu Chattopadhyay, 'Transformations of Labour Use in Indian Agriculture', *Cambridge Journal of Economics*, 8 (1984), pp. 289-296.

<sup>29</sup> Gerard J. Gill, 'Mechanised Land Preparation, Productivity and Employment in Bangladesh', *JDS*, 19, 3 (1983), pp. 329-348.

<sup>30</sup> Richard H. Wood, 'Tractor Mechanisation and Employment on Larger Private Mexican Farms', *ILR*, 122, 2 (1983), pp. 211-225. See also Gotsch, 'Tractor', pp. 151-153.

<sup>31</sup> Abercrombie, 'Agricultural', p. 61.

Binswanger's review of historical data suggests no direct link between mechanisation and higher yields.<sup>32</sup> Nor is tractorisation a prerequisite for the Green Revolution.<sup>33</sup> Ahmed has shown that tractorisation commenced in south Asia before the Green Revolution in the 1960s and continued almost as rapidly after the advent of HYV seeds.<sup>34</sup> Since HYV seeds also 'embody a greater genetic potential for response to increased amounts of plant nutrition',<sup>35</sup> increased crop intensities is 'a property of [HYV] seeds, not of mechanisation.'<sup>36</sup> Even so, higher yields have resulted from factors well beyond the seed-fertilizer nexus, including weather, guaranteed prices, and other supportive policy measures.<sup>37</sup>

Similarly, expanded ownership and use of tractors in Asia in the 1960s was fuelled less by the comparative advantage of tractorisation under the Green Revolution as by a combination of macro and micro-economic factors. At the micro level, increasing labour scarcity pushed up farm wages and left large farmers with only two options: to mechanise and reduce costs or otherwise face organised demands by labour for a share in the surplus. Most large-scale operators, it seemed, opted for the first option. At the macro level, over-valued currencies and liberalised credit policies translated to large implicit subsidies on imported tractors.<sup>38</sup>

In Pakistan, for example, tractors were imported with foreign exchange obtained from official sources at about half of their market value.<sup>39</sup> Government-guaranteed prices, or

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<sup>32</sup> Binswanger, *Agricultural*, pp. 7-8.

<sup>33</sup> Ahmad, 'Implications', p. 21.

<sup>34</sup> Iftikhar Ahmed, 'The Green Revolution and Tractorisation: Their Mutual Relations and Socio-Economic Effects', *ILR*, 114, 1 (1976), pp. 83-93.

<sup>35</sup> Ruttan and Binswanger, 'Induced Innovation', p. 359. Cf. Cépède, 'Green Revolution', p. 2.

<sup>36</sup> Ahmed, 'Green Revolution', p. 85.

<sup>37</sup> See, e.g., K. N. Raj, 'Mechanisation of Agriculture in India and Sri Lanka (Ceylon)', in ILO, *Mechanisation*, pp. 122-126.

<sup>38</sup> Ahmed, 'Green Revolution', pp. 86-89.

<sup>39</sup> Gotsch, 'Tractor', p. 139. Clayton makes similar points in respect of East African countries in

the absence of an efficient scheme of agricultural taxation also assured a minimum reasonable return to private investment in tractors regardless of the propensity for prices to fall as a result of increased supply.<sup>40</sup> Given the opportunity costs of foreign exchange in developing countries, these and other policy incentives often distort the markets for labour, capital, as well as foreign exchange in the countries concerned and may well reduce their import capacity, as Gill has suggested with regard to Bangladesh.<sup>41</sup> Mechanisation thus 'involves substituting an expensive factor of production [capital, in the form of tractors and machinery] for a relatively cheap one [i.e. labour].'<sup>42</sup>

The point about expanded acreages is more interesting in the present context because Ekiti-Akoko's small farmers were expected to increase their holdings six-fold, from an estimated 0.4 ha. to 2.5 ha. per capita. The latter is the minimum estimated size at which the individual farmer can employ mechanisation profitably. Data reviewed by Clayton and Ahmed have suggested increases in cropped areas of between 50% and 100% in India and Pakistan during the 1960s.<sup>43</sup> These increases are certainly related, in part at least, to expanded access to tractors during the Green Revolution. But the changes took place in close-settled zones where small farmers rented farmland for cash or occupied land in exchange for labour on the landlord's fields. Landlords were thus able to expand their share of arable land 'by reducing the amount of land available to tenants and thus creating landlessness [while] tractor owners increased their acreage by renting in or purchasing additional land.'<sup>44</sup> Both mechanisms implied a systematic, market-induced abandonment of the landlord's traditional obligations to tenants.<sup>45</sup>

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'Mechanisation',

<sup>40</sup> Gotsch, 'Tractor'; Ahmad, 'Implications', p. 12.

<sup>41</sup> Gill, 'Mechanised Land'.

<sup>42</sup> Clayton, 'Mechanisation', p. 312. On Nigeria, see Jerome Wells, *Agricultural Policy and Economic Growth in Nigeria 1962-68* (Ibadan, 1974), p. 311.

<sup>43</sup> Clayton, *Agriculture*, p. 164; Ahmed, 'Green Revolution', p. 84.

<sup>44</sup> Clayton, *Agriculture*, p. 163.

<sup>45</sup> Ahmad, 'Implications', pp. 18-20; pp. 28-29; Gotsch, 'Tractor', pp. 150-151, pp. 155-156.

Increased acreages in India and Pakistan during the 1960s were thus accompanied by 'regressive land reform', that is 'the taking of land from small cultivators to those that will develop the land more effectively' or intensively.<sup>46</sup> The Green Revolution, it would seem, strengthened existing tendencies for interlinked factor markets in Asian countries. Asian peasants thus faced an increasingly centralised suppliers' market in land and technology. Available options, if they could be so-called, were to intensify their production in order to fulfil increasing rent and other obligations to landlords, or to lose their tenancy and means of subsistence altogether. This near zero-sum context precluded peasants from rejecting Green Revolution technology or otherwise adopting the new techniques at their own pace. Mechanisation is thus a technical as well as social-structural phenomenon.<sup>47</sup>

To sum up. Mechanisation might be desirable in itself but is difficult to justify in strictly economic terms. The potential for expanded use of mechanical power by small and large farmers alike is also a function of two main factors. The first is access to productive resources, especially capital and land. The cost of capital could be reduced by direct and indirect subsidies, as indicated below. Tractors could also be employed economically on small, fragmented plots *if* the economic pay-offs from tractorisation are apparent enough to encourage farmers to cultivate contiguous plots, and if sufficient demand for tractor services exists at small-farm level.<sup>48</sup> The more difficult general problem lies, therefore, with tenure systems and how they balance economic rationality (defined narrowly as individual profit-seeking) with social equity. Mechanisation flourishes where there is private property in land, and where smallholders compete for land on similar terms with larger-scale farmers. The institutional implication is clear: if mechanisation is to proceed apace, tenurial arrangements which sustain peasant farming have to change substantially.

The second major factor that promotes mechanisation is macro-economic policy support. Such support could take the form of subsidies to reduce the real cost of capital or

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<sup>46</sup> Payer, *The World Bank* (New York, 1982), p. 214; p. 217.

<sup>47</sup> Ahmed, 'Green Revolution', pp. 90-91.

<sup>48</sup> Inukai, 'Farm', p. 458. Western Nigeria's farm settlements were founded upon similar assumptions.

operational expenses. Alternatively, tax incentives might be granted to permit accumulation of surpluses which could then be invested in tractors and equipment. In practice, investors do not always act in the collective interest and policy structures do fail to channel incentives to the most appropriate groups. Policy incentives also distort factor markets and widen the gap between the private benefits and social costs of mechanisation. Add to this the net labour displacement effect of mechanical power, and it becomes clear that the social benefits of mechanisation are realisable only in the long-term.<sup>49</sup> The next section considers how these issues have manifested in northern Nigeria and Nigeria-wide schemes.

### 8.3 Farm Mechanisation in Nigeria since c.1920s

Official attempts to expand the use of animal and mechanical power in small scale agriculture in Nigeria date back to the beginnings of colonial agricultural extension work early in the 20th century.<sup>50</sup> In pre-colonial northern Nigeria,

...the settled farmer was commonly little more than a villein or slave; and even if any farmer had the money to invest in cattle, he dared not do so, as they were apt to be forcibly taken away from him; or, at best, such an obvious sign of increased wealth made him liable for excessive taxation. This state of affairs ended when [Nigeria] was taken over by the British; and after a few years a number of settled farmers began to invest their savings in cattle. Recently the number of those who have done so has been steadily increasing.<sup>51</sup>

Faulkner and Mackie's depiction of pre-colonial northern Nigeria as a despotic polity in which honest and productive endeavour economy was discouraged is open to question, especially as a counterpoint to the colonial state's early economic strategy.<sup>52</sup> But the

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<sup>49</sup> Pingali, Bigot, and Binswanger, *Agricultural*, p. 185.

<sup>50</sup> O. T. Faulkner and J. R. Mackie, *West African Agriculture* (Cambridge, 1933), pp. 64-75.

<sup>51</sup> *Ibid.*, p. 65.

<sup>52</sup> Cf. Robert Shenton, *The Development of Capitalism in Northern Nigeria* (1986), especially pp. 101-119; and Anthony I. Nwabughuogu, 'From Wealthy Entrepreneurs to Petty Traders: The Decline of African Middlemen in Eastern Nigeria, 1900-1950', *JAH*, 23, 3 (1982), pp. 365-379. For wider commentary, see Cyril Ehrlich, 'Building and Caretaking: Economic Policy in British Tropical Africa, 1810-1960', *EHR*, 2nd ser., XXVI, 4 (1973), pp. 649-667; and Anne Phillips, *The Enigma of Colonialism* (1989), especially pp. 156-163.



commentary underscores how the colonial state had helped to promote mixed farming in northern Nigeria.

Government's initial approach was to regard mixed farming and the introduction of the plough as two sides of a coin. The Agriculture Department thus designed a programme that sought to promote more intensive cultivation and the expansion of cropped acreages. According to Faulkner and Mackie,

...mixed farming [requires that] every farmer owns cattle of his own, say two bullocks and one or two cows, together with his usual head of sheep, goats and fowls. He would keep his cattle in a pen and supply them with bedding, thus making farmyard manure of the highest quality all the year round. His bullocks would be used for ploughing, thus solving the labour problem; and his cows would breed calves and supply him with milk for his family or for sale. The calves would appreciate in value as the male animals come on for draught purposes and the females develop into milking cows.<sup>53</sup>

Faulkner and Mackie went on to review possible arrangements for making hay and animal feed.<sup>54</sup> But the capital requirements of these arrangements and the centralized control over access to (grazing) land in northern Nigeria lent an elitist character to the arrangements. This partly explains why a large proportion of beneficiaries were from among the traditional gentry and native administration officials.<sup>55</sup>

Early official policy sought to reduce the time spent by labour in food production and to make such extra labour time available for the production of export crops and raw materials.<sup>56</sup> Although the dual mandate had become fashionable by the 1920s, the need to 'prop the state's dwindling revenue' was perhaps more important for officialdom than producer welfare.<sup>57</sup> Expanded relations with the export market promised 'quick returns', increased access to cash, and higher purchasing power. Yet, native farmers' material

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<sup>53</sup> Faulkner and Mackie, *Agriculture*, p. 64.

<sup>54</sup> *Ibid.*, pp. 71-74.

<sup>55</sup> Tom Forrest, 'Agricultural Policies in Nigeria, 1900-78', in Judith Heyer, Pepe Roberts, and Gavin Williams (eds.), *Rural Development in Tropical Africa* (1981), pp. 226-227; Shenton, *Development*, p. 105.

<sup>56</sup> Faulkner and Mackie, *Agriculture*, p. 5.

<sup>57</sup> Shenton, *Development*, p. 104.

welfare was to be improved not so much through direct policy intervention as by autonomous action by farmers themselves to intensify their involvement in primary commodity production.<sup>58</sup> As Faulkner and Mackie argued,

the material advancement of the people...is at present...bound up with the production of raw materials for export, after they have provided for their own food...if labour is saved in the production of foodstuffs, it becomes available for production for export...The economics of native agriculture thus become the foundation of agricultural policy.<sup>59</sup>

Official concern for social welfare expanded dramatically with the global shift in development ideology in the 1950s and 1960s. This inclination was expressed in Nigeria through regional land settlement programmes and state-owned plantations. One result of this expansion was an increase in the number of imported tractors, from under 500 in 1960 to over 1,200 ten years later. Tractor imports peaked at 8,700 units in 1981, concurrently with Nigeria's Green Revolution campaign.<sup>60</sup>

Table 8.1 summarises data on Nigeria's tractor imports between 1960 and 1986 in unweighted averages for three-year sub-periods. Data for 1980 are for six months and those for 1982 are estimated; still, Table 8.1 suggests a phenomenal growth in the number of imported tractors after 1968. In 1969-71, annual average imports reached 1,000 units, increasing to over 1,700 units in 1972-74. The latter exceeds 1960-62 and 1963-65 figures by between three and four times respectively. Imports increased further after 1973, peaking at 4,600 each year in 1975-77. Thereafter, the number of imported tractors declined by about half, picked up once again in 1981-83 by about the same proportion, and then dropped to just over 1969-71 levels. The decline in tractor imports in the 1980s is partly in response to Nigeria's diminishing economic fortunes since the 1979 oil price shock, and partly because demand was being met by local tractor assembly

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<sup>58</sup> *Ibid.*, pp. 3-4.

<sup>59</sup> *Ibid.*, p. 5.

<sup>60</sup> See Olajire Bamisaye, 'The Crisis of Green Revolution Programme in Nigeria: The Need for a Rural Development Policy' in Ajibade Ogunjumo *et. al.* (eds.), *Nigeria's Economic Recovery Strategies* (Ile-Ife, 1988), pp. 12-27; and Francis Idachaba, 'The Political Economy of Nigeria's Green Revolution Programme', in NES, *The Nigerian Economy* (Ibadan?, 1986), pp. 87-110.

plants.

**Table 8.1**  
**Nigeria's Tractor Imports, 1960-86<sup>a</sup>**

Sub-period	Wheeled	Tracked or half-tracked	Total	% change
1960-62	870	286	1156	-
1963-65	222	269	491	-57.5
1966-68	235	211	446	-9.2
1969-71	776	226	1,002	124.7
1972-74	1,414	319	1,733	73.0
1975-77	3,089	1,514	4,603	165.6
1978-80 <sup>b</sup>	1,396	987	2,383	-48.2
1981-83 <sup>c</sup>	2,312	1,324	3,636	52.6
1984-86	791	324	1,115	-69.3
Average per sub-period	1,234	607	1,841	-

Notes: <sup>a</sup> Unweighted averages computed from annual cumulative totals. <sup>b</sup> 1980 figures as at 30 June.

<sup>c</sup> Data for 1982 not available; estimate fitted with SPSS Release 6.0.

Computed from: *Nigeria Trade Summary*, various years.

Pockets of mechanised farms now exist in all parts of Nigeria. Policy support for large scale farming has been intensified since the 1980s as part of a wider strategy to expand local production of raw materials for industry.<sup>61</sup> A list compiled by Bonat and Abdullahi has suggested, for example, that at least 54 transnational concerns in Nigeria have taken more or less substantial stakes in mechanised farming as at 1989.<sup>62</sup> Since some of the companies in the list have been traditionally engaged in the manufacture and/or retail of consumer goods, it must be inferred that Nigerian agriculture has become more attractive for foreign investment than in the 1960s and 1970s. Even so, the multiplier effects of mechanisation on employment prospects in agriculture generally or in the rural areas in particular have been negligible, limited, or open to debate.

The reasons are not difficult to seek. The policy concessions themselves, and the

<sup>61</sup> Gunilla Andrae and Bjorn Beckman, 'Industry Goes Farming: The Nigerian Raw Material Crisis and the Case of Textiles and Cotton', *Research Report No. 80* (Uppsala, 1987); Ronald Cohen, 'Adversity and Transformation: The Nigerian Light at the End of the Tunnel', in R. Cohen (ed.), *Satisfying Africa's Food Needs* (1988), pp. 232-234.

<sup>62</sup> Zuwaqhu Bonat and Yahaya Abdullahi, 'The World Bank, IMF and Nigeria's Agricultural and rural Economy', in Bade Onimode (ed.), *The IMF, the World Bank and the African Debt*, Vol. 2 (1989), pp. 174-176.

circumstances that spawned them, put government in a weak negotiating position vis-a-vis foreign investors. In 1984/85, Nigeria's Indigenous Enterprises Promotion (or Indigenisation) Act was amended to allow complete foreign ownership of agricultural ventures. Conceived primarily to attract private foreign investment into the economy, the amendment reversed provisions under which agricultural enterprises could only be jointly owned with Nigerians. The preference for agricultural ventures thus reflects relative factor prices and profit potential (or turnover ratios) between agriculture and, say, manufacturing rather than a desire shared by government and investors alike to encourage new ways of transforming agricultural production.

Since the mid-1980s, Nigeria's federal and state governments have been eager to offer large tracts of land in addition to tax and profit incentives to attract private investment. This is not bad in itself, but such deals invariably displace smallholders and encourage landlessness and impoverishment in areas with few, if any, economic opportunities outside agriculture. So far the government has done virtually nothing to discourage the use of labour-displacing technology on large-scale mechanised farms. Nor has there been any substantial evidence to suggest that Nigeria's state managers have seriously addressed the deleterious effects on farm employment and rural welfare of imported tractors and equipment.

For example, the minimum capacity of tractors reported in Table 8.1 above is 40 b.h.p. (brake horse power). This reflects Nigeria's soil profile less than it exemplifies the belief in developing countries that 'the most modern and efficient technical equipment' would help accelerate the development process.<sup>63</sup> But while such tools are often the best in the market, they have invariably been developed with little consideration for the buying countries' ecological or capital-labour profiles. Apart from poor linkages with their host rural economies, the equipment breaks down frequently and cannot be fully employed. Proper maintenance is also difficult because of poor local technical capacity or because foreign exchange supply constraints make spare parts too expensive and unavailable.

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<sup>63</sup> Alexander Gerschenkron, *Economic Backwardness in Historical Perspective* (New York, 1965 ed.), p. 9.

At the same time, officials have either trivialised or avoided altogether the potential for technology-induced income inequalities. In 1982, government acknowledged the existence of distributional inequalities and its possible social effects.<sup>64</sup> But it did little more than express the belief that absolute change in income is more important than relative change, and that as part of Nigeria's 'virile and forward looking population...small farmers...will be happy with an increase in their absolute income and gradually promote themselves into medium and later into larger size farmers.'<sup>65</sup>

By 1983, senior officials were denying that the structure of access to productive resources constituted a problem. Theophilus Aribisala, Chief Consultant to the Green Revolution National Committee, argued in a NISER Distinguished Lecture that the problem of differential access to inputs did not apply to Nigeria because Nigeria's Green Revolution programme was designed especially for small-scale farmers and because the country had 'very few large farmers to speak about!'<sup>66</sup> Above all, Aribisala argued that 'Green Revolution technology is scale neutral and as long as there is an even distribution of productive resources of land, capital and other inputs among [small farmers] there *should* be no problem.'<sup>67</sup> In fact, productive inputs are *never* distributed evenly; access to recommended inputs has constituted a *substantive* problem in technology-driven agriculture. Large-scale farmers have also been shown to have employed Green Revolution technology more easily and more profitably than small, cash-poor farmers even in the success stories of Asia and Latin America, though the facts are debated as noted earlier.<sup>68</sup> In short, Aribisala merely fudged the question of unequal access to inputs in Nigeria.

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<sup>64</sup> FRN, *Green Revolution* (Lagos, 1982).

<sup>65</sup> *Ibid.*, p. 32.

<sup>66</sup> Aribisala, 'Nigeria's Green Revolution: Achievement, Problems and Prospects', *NISER Distinguished Lecture N<sup>o</sup> 1* (Ibadan, 1983), p. 31.

<sup>67</sup> *Ibid.* Emphasis added.

<sup>68</sup> For recent comments, see Michael Lipton with Richard Longhurst, *New Seeds and Poor People* (1989), chp. 3; and Ignacy Sachs, 'Towards a Second Green Revolution?', in Glaeser, *Green Revolution*, pp. 193-198.

One point, however, is beyond dispute. Mechanisation has highlighted the importance of property rights in land and encouraged government to streamline Nigeria's different tenure systems. Official strategies and successes have tended to differ between Nigeria's ethno-geographical regions. In the north, central control over land was formalised in the Native Lands Ordinance of 1910, under which all land was vested in the government and administrative control in Native Authorities.<sup>69</sup> In the southwest, by contrast, government's attempts to pool smallholdings have been less successful. In these cases, and in the southeast where the supply and productive potential of available farmland has been constrained by high population densities, the goal of policy has been first, to make intensification economically feasible and attractive to the peasantry; and second, to overcome land fragmentation by encouraging smallholders to increase their cropped acreages and, where possible, to cultivate contiguous fields.<sup>70</sup>

As a whole, policy-induced landlessness has been confined largely to closely-settled northern Nigeria. The north's history of semi-feudalism had converged with the imperatives of indirect rule and made a fait accompli of central governmental control over all land, as noted above. Indirect rule was less successful in southwestern Nigeria and a near-total failure in the east, partly because of different historio-political traditions and partly because of a sustained campaign by the then nascent southern elite against the extension to the south of provisions of the 1910 Ordinance.<sup>71</sup> The 1978 Land Use Act was intended to achieve this goal, its main justification being that 'the idea of government being the custodian of land in the Northern States is germane and should be remain as an acceptable base for land use'.<sup>72</sup> In fact, the Act has been widely abused even in the north and also failed to substantially weaken communal control over agricultural land in

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<sup>69</sup> Michael Mortimore *et. al.* (eds.), *Perspectives on Land Administration and Development in Northern Nigeria* (Kano, 1986).

<sup>70</sup> See e.g., Martin U. Igbozurike (ed.), *Land Use and Conservation in Nigeria* (Nsukka, 1981), Part I; and Section 3. See Mortimore *et. al.*, *Perspectives*, Part I.

<sup>71</sup> I. M. Okonjo, *British Administration in Nigeria 1900-50* (New York, 1974); Sara Berry, 'Hegemony on a Shoestring: Indirect Rule and Access to Agricultural Land', *Africa*, 62, 3 (1992), pp. 341-343.

<sup>72</sup> Paul Francis, "'For the Use and Common Benefit of all Nigerians': Consequences of the 1978 Land Nationalization', *Africa*, 54, 3 (1984), p. 7.

the southwest.<sup>73</sup>

In any case, regressive trends in land distribution have been reported since the 1970s in research on close-settled Kano and Kaduna States<sup>74</sup> as well as in Sokoto<sup>75</sup> and Bauchi States.<sup>76</sup> In these and possibly other states, large-scale irrigation and wheat cultivation have intensified private property in land and generated landlessness among poor peasants. It is generally believed that these developments have benefited a class of middle peasants or urban-based farmer-businessmen with privileged access to government functionaries and to commercial credit.<sup>77</sup> The Land Use Act has consolidated private property in land to the extent that large-scale farmers now have more secure private rights, at least formally, than peasant cultivators. But this has been more limited to urban or peri-urban than rural land; in the latter, communal control has persisted, and in some cases been reinforced by the softness of the state's structures or ethnic posturing by the political elite.<sup>78</sup> In any case, the Act has reinforced a dual tenure system and widened the scope of rent-seeking as well as speculation in arable land by privileged individuals and

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<sup>73</sup> See Yakub L. Fabiyi, 'Land Policy in Nigeria: Case Studies of the Implementation of the Land Use Decree (Act) in Ogun, Ondo and Oyo States of Nigeria', *Odu*, 19 (1979), pp. 144-156. See also A. N. Chidebelu, G. W. Ames and E. E. Brown, 'Land Use in Nigeria', *FP*, 5, 4 (1980), pp. 306-310; and R. O. Adegboye, 'The Land Use Decree: A Revolution in Land Ownership?', in O. Oyediran (ed.), *Survey of Nigerian Affairs 1977-78* (Lagos, 1981), pp. 47-54.

<sup>74</sup> See, e.g., Segun Famoriyo, 'Land Ownership and Control in Nigeria: Implications of the Land Use Act for Nigeria's Political Economy', in NES, *Nigerian Economy*, pp. 126-141.

<sup>75</sup> Ken Swindell and A. B. Mamman, 'Land Expropriation and Accumulation in the Sokoto Periphery, northwest Nigeria', *Africa*, 60, 2 (1990), pp. 173-187.

<sup>76</sup> Peter H. Koehn, *Public Policy and Administration in Africa* (Boulder, 1990), chp. 5.

<sup>77</sup> See, e.g., Tina Wallace, 'Agricultural Projects and Land in Northern Nigeria', *ROAPE*, 17 (1980), pp. 59-70; Bjorn Beckman, 'Public Investments and Agrarian Transformation in Northern Nigeria', in Michael Watts (ed.), *State, Oil, and Agriculture in Nigeria* (Berkeley, 1987), pp. 110-137.

<sup>78</sup> In 1988, for example, Olusegun Obasanjo, who as military head of state presided over the promulgation of the Act, had the certificate of occupancy on his holdings in Niger State revoked by the state government. The official reason was an unspecified public interest requirement, but the revocation order was announced shortly after Obasanjo, who had become a successful large-scale farmer after leaving office, criticised the government's structural adjustment programme for lacking a human face. In this and several other cases, government's powers under the Act may have been used to settle political and personal scores with little regard for the credibility of incipient institutions.

groups.<sup>79</sup>

#### 8.4 Western Nigeria's Experience to c.1970s

This section examines the rise of tractor operations in Western Nigeria, with particular emphasis on a relatively successful case in the old Oyo Division, within the savanna zone. The successes of that case are explained in the context of wider economic variables, which also distinguish it from Ekiti-Akoko's experience. The latter is the subject-matter of a subsequent section.

In the 1870s, Christian missionaries working in or around Badagry and Abeokuta made an early attempt to introduce the plough into southwestern Nigeria.<sup>80</sup> In the spirit of the presumed association between Christianity, commerce, and civilisation,<sup>81</sup> the missionaries had regarded the introduction of the plough as a logical sequel to the spread of the gospel.<sup>82</sup> Those early hopes floundered because the Yoruba wars had made organised development activity difficult, and also because 'the new crops and seeds introduced needed neither the plough nor imported techniques to make them thrive.'<sup>83</sup> The potential for widespread use of the plough was also limited by the absence of draught animals and also because the dense forest provided a 'vegetal cover that could not be easily removed for the plough to be set in motion.'<sup>84</sup>

In the 1930s, the colonial government promoted a green manure scheme as a counterpart to the plough in northern Nigeria. But the scheme was doomed because of a very low animal density occasioned by bush and forest-borne diseases. Moreover, the application

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<sup>79</sup> Francis, 'Land Nationalization'.

<sup>80</sup> G. J. A. Ojo, 'Trends Towards Mechanised Agriculture in Yorubaland', *NGJ*, 6, 2 (1963), pp. 116-129.

<sup>81</sup> C. C. Ifemesia, 'The Civilising Mission of 1841: Aspects of an Episode in Anglo-Nigerian Relations', *JHSN*, 2 3 (1962), pp. 291-310.

<sup>82</sup> Ojo, 'Trends', p. 117.

<sup>83</sup> *Ibid.*, pp. 117-118.

<sup>84</sup> *Ibid.*, p. 118.



of organic manures had encouraged rapid bush and grass regrowth, generating additional demand for peak-season labour for weeding operations.<sup>85</sup> It was only after 1945, therefore, that farm mechanisation became a prominent policy objective in Western Nigeria.<sup>86</sup>

In 1959, Western Region launched its farm settlement scheme, an experiment with new forms of organization to stimulate the adoption of modern techniques in peasant farming and create agricultural career opportunities for youths who had completed six to eight years of formal education.<sup>87</sup> Thirteen settlements (including two in the savannah region) with a total of 2200 settlers, were originally proposed for the region, but this was revised upwards in 1962 to stem the tide of primary school graduates who were starting to feature 'specially in troublesome migrations to towns and cities'.<sup>88</sup> By 1966, there were 19 settlements and at least 3000 settlers at a cost totalling £N7.4 million in 1962-68. Apart from cost overruns, the scheme failed in its employment and welfare goals.<sup>89</sup> According to Adegeye, the scheme could have absorbed only 4,500 or 1.3% of the estimated 340,000 male school leavers in Western Nigeria in 1969.<sup>90</sup> In the event, the scheme attracted only 1,410 settlers, less than one-third of the settlements' total labour absorption capacity,<sup>91</sup> while turnover increased steadily to 42% in 1965-66.

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<sup>85</sup> CSO26/4/34177 NAI. Minute 2758/DA/6A of 16 May 1938 by J. R. Mackie, Director of Agriculture.

<sup>86</sup> Ojo, 'Trends', pp. 118-119.

<sup>87</sup> WRN, 'Future Policy of the Ministry of Agriculture and Natural Resources', *Sessional Paper* N<sup>o</sup> 9 of 1959 (Ibadan, 1959).

<sup>88</sup> WRN, 'White Paper on Integrated Rural Development', *Western Nigeria Official Document* N<sup>o</sup> 8 of 1963 (Ibadan, 1963).

<sup>89</sup> Mordechai Kreinin, 'The Introduction of Israel's Land Settlement Plan to Nigeria', *JFE*, 45, 3 (1963); Oladejo Okediji, 'Some Socio-Cultural Problems in the Western Nigeria Land Settlement Scheme: A Case Study', *NJESS*, 7, 3 (1965); Dupe Olatunbosun, 'The Farm Settlement: A Case Study of an Agricultural Project in Nigeria', *BRES*, 6, 1 (1971).

<sup>90</sup> A. J. Adegeye, 'Re-Examination of the Issues involved in the Farm Settlement Scheme of the Western State of Nigeria', *OAS*, III, 1, new ser. (1974), pp. 79-88.

<sup>91</sup> *Ibid.*, , p. 80.

In 1962/63, 130 of 620 settlers [in two neighbouring settlements] left the settlements, discouraged by the hard life, the crop failures, the size of their debt, the authoritarian behaviour of the staff, a compulsory savings scheme and delays in paying the monthly food allowance [£5. 10s.]<sup>92</sup>

According to official figures, Igede farm settlement, near Ayede, never had more than 20 settlers at any point in time,<sup>93</sup> though two of the original settlers gave a higher figure of 22.<sup>94</sup> By 1975/76, six years into Igede's life, the number of settlers had dwindled to only five.<sup>95</sup> In ten years to 1975/76, the number of settlers in all seven farm settlements in present-day Ondo State ranged from 238 to 365. If account is taken of missing data, each settlement would have a mean annual settler population of 50, with tree crop settlements in Akure and Okitipupa attracting up to 100 settlers in half of the period covered by the data.<sup>96</sup>

A more successful case, perhaps, concerns the growth of private tractor services in old Oyo and Osun Divisions of Western State, as reported by Kolawole.<sup>97</sup> Like some parts of EAADP's operational area, what used to be Oyo and Osun Divisions (now divided between two states with the same names) have large areas under savanna vegetation. The case is therefore of immense analytical interest here. In the 1970s, the Western State Government had sought to develop a private market in tractor services, much like the Ekiti-Akoko project tried to do in the 1980s. To this end, government had sold used tractors at rock-bottom prices 'to progressive farmers...to encourage private tractor ownership.'<sup>98</sup> Prices averaged N200 each, that is some 2,150% lower than the minimum

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<sup>92</sup> W. Roider, 'Nigerian Farm Settlements', in A. H. Bunting (ed.), *Change in Agriculture* (1970), p. 421.

<sup>93</sup> ODS, *Digest of Agricultural Statistics, 1976* (Akure, n.d.), Table 30, p. 35.

<sup>94</sup> Interview with both settlers, Amos Akinyemi and Julius Ayegbusi, 15 April 1992.

<sup>95</sup> ODS, *Digest 1976*, Table 30, p. 35.

<sup>96</sup> *Ibid.*

<sup>97</sup> M. I. Kolawole, 'Economic Aspects of Private Tractor Operations in the Savanna Zone of Western Nigeria', *Savanna*, 3, 2 (1974), pp. 175-183.

<sup>98</sup> *Ibid.*, p. 178.

market price of a new Mersey Fergusson 165 tractor.<sup>99</sup> While the 165 model accounted for 39.1% of all tractors (n=87) reported in Kolawole's survey, 93% of all tractors were Mersey Fergusson.<sup>100</sup>

In addition to the generous undervaluing of the capital costs of tractors, government provided a 30% subsidy 'to cover supervisory staff and expenses involved in movements of tractors between the scattered farms.'<sup>101</sup> Government also charged lower rates than private operators for field operations. This translated to implicit subsidies of between 25% and 32% on the cost of major operations to farmers who hired government tractors in 1965-67.<sup>102</sup>

One outcome of this scheme was a remarkable expansion in private ownership of tractors. In 1968, according to Purvis' path-breaking survey, eight private tractor owners had 11 Mersey Fergusson tractors between them.<sup>103</sup> Five years later, in 1973, the number of private tractor operators had increased to 50. The number of privately-owned tractors had also increased seven-fold to 87 by 1973, most of them in southern Oyo.<sup>104</sup>

Kolawole's survey area however comprised communities with a relatively long and intense exposure to capital-intensive, commercial agriculture. In the 1930s, the British-American Tobacco Company pioneered commercial production of tobacco leaves, its main raw material, in what is now known as northern Oyo State.<sup>105</sup> Since 1954 at least,

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<sup>99</sup> *Ibid.*, p. 179.

<sup>100</sup> Computed from *ibid.*, p. 178.

<sup>101</sup> *Ibid.*, p. 175.

<sup>102</sup> Computed from S. A. Oni, 'The Present Stage and Prospects of Agricultural Mechanisation in Nigeria', in *Recent Stage and Prospects of Agricultural Mechanisation in Developing Countries* (Berlin, 1976), Table 4, p. 124.

<sup>103</sup> M. Purvis, 'A Study of the Economics of Tractor Use in Oyo Division of the Western State', *Consortium for the Study of Nigerian Rural Development*, Bulletin 17 (1968), cited extensively in Wells, *Policy*; Kolawole, 'Tractor'; and Oni, 'Prospects'.

<sup>104</sup> Kolawole, 'Tractor', p. 177.

<sup>105</sup> J. T. Coppock, 'Tobacco Cultivation in Nigeria', *Erdkunde*, XIX, 4 (1965), p. 299. Also described

the Nigerian Tobacco Company (NTC), a subsidiary of British-American, has contracted local farmers to produce flue-cured tobacco leaves.<sup>106</sup> This has certainly created alternative uses for land and labour, enabling local farmers to expand the production of a cash crop (i.e. tobacco leaves) for which there is substantial technical and economic support as well as demand.

Yield increases have also been reported for maize, often grown in rotation with tobacco but also benefitting from the use of fertilizer to improve tobacco yields.<sup>107</sup> Increasing incomes from tobacco production have in turn meant that farmers have been able to absorb the costs of mechanisation more easily than they would if they were growing food crops for subsistence or for sale.<sup>108</sup> When account is taken of the economic and historical impact of NTC's presence in the area,<sup>109</sup> government's generous support for private tractor operators is likely to become less significant.

For example, the NTC sponsored only three of 41 operators surveyed by Kolawole. This small proportion of respondents however accounted for 52% of tractors reported in the survey! These 'company owners', as Kolawole calls them, were not themselves farmers, and they provided hire services full-time to all farmers in the tobacco belt. But they gave priority to tobacco growers, NTC's primary clients.<sup>110</sup> All tractors used by company owners were also obtained from the open market or through the NTC. Conversely, co-operative owners obtained 57% of their tractors through the government's discount scheme; 32% of individually-owned tractors were similarly obtained. As a whole

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in Elliott Morss *et. al.*, *Strategies for Small Farmer Development*, Vol. II Case Studies (Boulder, 1976), pp. 203-212.

<sup>106</sup> For details, see D. A. Oyeleye, 'Tobacco Cultivation in Oyo Division, Western Nigeria', *NGJ*, 14, 2 (1971), pp. 165-184.

<sup>107</sup> Morss *et. al.*, *Strategies*, p. 210.

<sup>108</sup> Wells, *Policy*, p. 311, citing Purvis.

<sup>109</sup> See, e.g., M. I. Kolawole, 'Economic Aspects of Flue-Cured Tobacco Production in the Savanna Zone of Western Nigeria', *Savanna*, 4, 1 (1975), pp. 13-22; and Ademola Babalola, 'Capitalist Development in Agriculture: The Case of Commercial Tobacco Farming in the Oyo-North Division, Oyo State, Nigeria', *AEH*, 21 (1993), pp. 37-49.

<sup>110</sup> Kolawole, 'Tractor', p. 177; p. 180.

therefore, 36% of all non-company tractors, or 17% of all tractors reported in Kolawole's survey were obtained from the Ministry of Agriculture.<sup>111</sup> About two-thirds of non-company tractors and a remarkably high 87% of all tractors covered by the survey thus originated outside the government's sales scheme.

A number of inferences can be drawn from the above analysis. The first and most obvious is that company operators constitute a minority of private tractor operators in old Oyo and Osun Divisions. It is certain, however, that the NTC, acting through its sponsored units, has been better able to bring its influence to bear on the market than have independent operators. Tractor output figures suggest, for example, that NTC-sponsored units accounted for between one-third and over half of mechanised acreages in 1970-73. Average acreage per tractor was estimated at over 3,000 acres (1,214.1 ha.) at NTC-sponsored units and between 80-400 acres (or 32.4-162.0 ha.) in others.<sup>112</sup> The same point is supported by available evidence on NTC's organisational leverage and control of credit for tobacco farming. Kolawole's survey of 71 tobacco-growing families has suggested, for example, that 87% obtained all their credit from the company.<sup>113</sup> An additional 12% of respondents relied on the company as well as other sources for their credit needs.<sup>114</sup> Indeed, what Kolawole regarded as NTC's essential support for small tobacco-growing groups in 1973<sup>115</sup> had, in Babalola's opinion, become a full-fledged monopoly control over a major element of productive life in the Oyo-North area by 1987.<sup>116</sup>

Second, and more importantly, effective demand for tractors among locals was relatively high. This inference would still hold even after allowance has been made for NTC-

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<sup>111</sup> Computed from *ibid.*, p. 178.

<sup>112</sup> *Ibid.*, p. 180.

<sup>113</sup> Kolawole, 'Flue-Cured Tobacco', Table 4, p. 19.

<sup>114</sup> *Ibid.*

<sup>115</sup> *Ibid.*, p. 22.

<sup>116</sup> Babalola, 'Commercial Tobacco', p. 48.

sponsored operators. Demand levels may well reflect personal factors, such as the size of farms, the quest for 'timeliness in operations', or the desire to 'avoid the disappointment usually associated with government hire stations', as Kolawole has noted.<sup>117</sup> Still, those who bought tractors must have built up their demand or utilisation capacity over time, most probably through government hire schemes.

The point, therefore, is that the government could have sold its discounted tractors at higher prices or with lower premiums. It is possible, of course, that fewer people would have been willing or able to buy tractors without the discounts. But the tractors would still have remained the cheapest alternative and private operators would have bought them to exploit local demand for tractor services. The government's discount scheme thus bears the hallmarks of an official transfer to well-off segments of the farming public.<sup>118</sup> This is the oft-cited divergence between the social costs and private benefits of state-sponsored mechanisation, details of which are not necessary here.<sup>119</sup>

What seems clear is that the scheme has helped to activate or at least sustain demand for tractor services in the survey area. It has also nurtured a crop of small-scale entrepreneurs in the locality, notably providers and users of tractors, and, by implication, support services such as spare parts and credit. According to Kolawole, total mechanized acreage increased by 320% to 10,200 acres over four years to 1973, though up to half of total acreage was accounted for by operators, most of whom worked their own land under close NTC supervision and control.<sup>120</sup> Purvis' survey data suggest further that farmers doubled the area planted to tobacco and other crops. Some 54% increase in yields was also reported for all crops grown on mechanized fields, although the increases are not attributed directly to mechanisation.<sup>121</sup> Private tractor operators however charged higher rates than government-owned THU. The differentials averaged 38% for

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<sup>117</sup> Kolawole, 'Tractor', p. 178.

<sup>118</sup> Binswanger, *Agricultural*, pp. 12-13 and p. 15.

<sup>119</sup> See Clayton, 'Mechanisation', p. 312; and Abercrombie, 'Mechanisation', pp. 56-57.

<sup>120</sup> Kolawole, 'Tractor', p. 180.

<sup>121</sup> Oni, 'Prospects', p. 130.

ridging and 57% for harrowing in 1973, but were most certainly offset by the remarkable increases in output and land productivity.<sup>122</sup> The wider economic impact of tobacco-growing is also significant. For two-thirds of tobacco farmer-respondents (n=200) to Babalola's survey reported investments outside the tobacco economy as well as in commerce and transport.<sup>123</sup> A large proportion of such investment is likely to have been derived from profits on their tobacco operations.

The link between mechanisation and physical productivity may not always translate to cash gains. According to Olayide, a yam farmer who works for six hours per day in a derived savanna area would increase his labour productivity by 17% or 62 mandays if his land was cultivated by mechanical means.<sup>124</sup> Cassava and maize growers would save 40 mandays (29.2%) and 15 mandays (15.5%) respectively over and above their colleagues who rely entirely on muscle power. In terms of costs, however, the yam farmer who employs partial mechanisation would be better off by only 11%, cassava growers by 9.3% and maize farmers by 4%.<sup>125</sup> Clearly, mechanisation's labour-saving effect does little to reduce its capital costs to the small farmer in the short and medium terms. On larger farms, savings on labour costs occasioned by mechanised land preparation are often offset by increased demand for labour in harvesting and processing. The question for policy, as noted earlier, is to make a choice between labour-saving or labour-displacing types of machines, or determine the speed and sequence in which farm chores are to be mechanised.<sup>126</sup> Either way, fundamental questions remain unanswered on the marginal value of mechanisation to small-scale farmers.

The Ekiti-Akoko area shares with the old Oyo and Osun Divisions a savanna vegetation, low population density as well as similar policy structures and objectives. While these

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<sup>122</sup> Kolawole, 'Tractor', p. 183.

<sup>123</sup> Babalola, 'Commercial Tobacco', p. 46.

<sup>124</sup> S. O. Olayide, 'Agricultural Technology and Nigeria's Small Farmers', in Olayide, J. Ewaka, and V. Bello-Osagie (eds.), *Nigerian Small Farmers* (Ibadan, 1980), Table 4.3, p. 52; p. 60.

<sup>125</sup> *Ibid.*

<sup>126</sup> Inukai, 'Farm Mechanisation'.

suggest similar objective conditions for the growth of tractor services, the Ekiti-Akoko area, and Ondo State in general lacks enterprises suitable to propel private investment in tractors or perform other facilitating functions, as NTC has done in tobacco-growing areas in present-day Oyo State. This has meant at least three things. First, low and uncertain economic incentives, or the lack of them, has meant that pressures for intensification by small farmers have been low or non-existent. The second is that local response to the project's mechanisation programme would turn not so much on the potential impact of mechanisation on land distribution as on individual concerns like labour supply, food security, and access to credit. The third and final point is that the project had to promote mechanisation without substantial private interest or policy support. These issues are now examined in some detail.

### **8.5 EAADP's Technical Service Packages**

The Ekiti-Akoko project promoted two categories of input-technical services to address the different requirements of smallholders and middle peasants/large scale farmers. These are the Basic Service Package and the Advanced Service Package. This section describes both packages and how well they fitted into local farming arrangements.

The Basic Service Package (BSP) was targeted at small scale farmers who, for various reasons, were most likely to buy farm inputs in small units, and at irregular intervals. BSP comprised conventional inputs like improved seeds, fertilizer, and agro-chemicals, but the star component was the minimum tillage manual equipment (or MTME), a complement of hand-pushed tools for land tillage, fertilizing, planting, and spraying. But potential adopters of BSP were not obliged to buy the entire package. On the contrary, farmers could buy chemicals and insecticides without buying any of the labour-saving hand implements and *vice versa*. Estimated to cost about N30.00 per unit, 65,000 small scale farmers were expected to employ BSP on 29,000 ha. of cultivated land, that is about 0.45 ha. per farmer.<sup>127</sup> In fact, none of 8,300 available units of BSP's hand tools was sold in six years to 1987.

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<sup>127</sup> V. A. P. Naik, 'Commercial Services Division', in APMEPU, *EAADP Completion Report*, Main Report Vol. II, p. 51.



The reasons are partly fundamental: BSP seems more appropriate for mono-cropping than for multiple cropping agriculture. From the farmer's viewpoint, the main issue is the rationality of adopting BSP when multiple intercropping is the fundamental principle of productive existence. As shown in chapter 5, local farmers do grow certain grains, especially maize, on single stands, but only when opportunity costs are nearly zero, or there is a near-absolute potential for increased returns to labour or for increased food output for consumption. There is reason to believe, therefore, that BSP as it existed in the 1980s could not offer similar assurance *before* fundamental change has been effected in dominant cropping patterns in the project area.

The above position can be illustrated with herbicides as with any other BSP component. Weeds are a universal problem in agriculture. As Hampson observed, weeds reduce crop yields, increase labour costs, create difficulties during harvesting, and harbour pests and insects that often attack plants.<sup>128</sup> Indeed, losses occasioned by weeds possibly exceed 'the losses caused by any other agricultural pests, including pests, diseases, and rodents, etc., and may in fact exceed the combined losses caused by all the other agricultural pests together...'<sup>129</sup> In the tropics, according to Ashby and Pfeiffer, 'yield increases of 100%, or even more, result very frequently from weed control by proper methods.'<sup>130</sup> As noted in chapter 7, weeding is only slightly less intensive than land clearing and tilling in its demand for labour. Hence, the need for traditional labour groups to provide pooled labour on weeding operations.<sup>131</sup> As Ojo observed in respect of Ekiti country,

[b]etween the months of May and September a great diversity of weeds surge with the heavy rains. Unremoved within a short span of time weeds engulf, suffocate and smother the crops. A farmer working alone would find that by the time he had completed one round of weeding a farm of a couple of thousand heaps the section he started with would have reverted to bush. It is imperative, therefore, that many hands work on a plot of an average size to prevent it from being lost to the weeds. The pooled labour of group

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<sup>128</sup> C. P. Hampson, 'Economics of Weed Control with Special Reference to MCPA', *WC*, 8, 6 (1956), pp. 224-225.

<sup>129</sup> *Ibid.*, p. 223.

<sup>130</sup> D. G. Ashby and R. K. Pfeiffer, 'Weeds: A Limiting Factor in Tropical Agriculture', *WC*, 8, 6 (1956), p. 227.

<sup>131</sup> See Ken Swindell, *Farm Labour* (Cambridge, 1985), chp. 5.

farming adequately serves this purpose.<sup>132</sup>

Group farming has declined since the advent of wage labour while '[h]and weeding - by hand pulling the weeds or by the use of heavy native hoes - is a slow business and is usually done *after* the weeds have begun to exert a depressant effect on the crop yield.'<sup>133</sup> Logically, even small farmers need herbicides to supplement family labour or to reduce the cost of hired labour in weeding operations and to improve total factor productivity. However, most farms are too small to make the application of herbicides economic.

The use of herbicides is also risky on multi-crop plots. As Allen had shown, weedkillers could be applied to sole maize or rice stands before or they germinate. But 'special care is necessary to minimise the risk of injury to the maize [or rice]...risks are minimum if application is made when the crop is between 2 and 6 in. high...'<sup>134</sup> In other words, crop damage is unavoidable in the 'post-emergence method'; weedkiller use is feasible only on single crop plots and cost-effective on interplanted plots only if cover or relay crops are not grown at all or if all plants stand sufficiently above the ground and are clearly distinguishable from grass and weeds. Even so, separating plants from weeds during spraying is difficult and time-consuming; subsequent weeding operations have to be (or are best) done manually.

Finally, herbicides and the applicator, spraying pumps, can be expensive for small farmers who are not actively engaged in cash crop production. As Table 8.2 shows, farming families in what became the project area had just under 11,000 pumps between them in 1978, an average of one pump to seven farming families.<sup>135</sup> The distribution of pumps however varies widely between LGAs: the average in Akoko North LGA is

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<sup>132</sup> G. J. A. Ojo, 'The Changing Patterns of Traditional Group Farming in Ekiti, North Eastern Yoruba Country', *NGJ*, 6, 1 (1963), p. 36; cf. N. A. Fadipe, *The Sociology of the Yoruba*, ed. F. O. and O.O. Okediji (Ibadan, 1970), p. 150.

<sup>133</sup> Ashby and Pfeiffer, 'Weeds', p. 227. Emphasis in original.

<sup>134</sup> H. P. Allen, 'Weed Problems in World Agriculture', *WC*, 8, 6 (1956), p. 218.

<sup>135</sup> ODS, *Rural Economic Survey 1978* (Akure, n.d.), Table 49, p. 53.

23.9 families to a pump, that is thrice as high as the average for the project area. One probable reason for this could be that cocoa is grown more widely in the survey villages in Akoko North LGA than in other LGAs. Thus only 25 pumps were reported by all of my 164 survey respondents, the same average of seven respondents to each pump as in the project area in 1978.

**Table 8.2**  
**Distribution of Spraying Pumps in Ekiti-Akoko Area, 1978**

(1) Local Government	(2) N <sup>o</sup> of pumps	(3) N <sup>o</sup> of farming families per pump
Akoko North	1,200	23.9
Akoko South	940	12.6
Ekiti Central	3,796	2.6
Ekiti East	2,281	4.4
Ekiti North	2,615	5.9
Project area	10,832	7.0
All Ondo State	45,603	8.7

Sources: Col. 2- ODS, *Rural Economic Survey 1978* (Akure, n.d.), Table 49, p. 53; col. 3- computed.

The limited applicability of BSP also applies to tools for land tilling. It is generally believed by some farmers whom I spoke with that the manual tilling equipment is only useful for making low or flat ridges. The tilling equipment, it is argued by some enlightened respondents, is less appropriate than the short-handled hoe for making the usually large, cylindrical heaps which are most suitable for yams. This criticism of the manual tillage equipment has not been investigated systematically, but it is supported by two investigations on the impact on crop yield of a new tool and crop management techniques.

The first case, published in 1933 in Faulkner and Mackie's *West African Agriculture*, concerned the possible impact on crop productivity of animal-drawn ploughs. Whereas the average farmer with a traditional hoe could make ridges of between 3.5ft. and 4ft. apart, a plough drawn by two bullocks could only make ridges of 2-3 ft. apart.<sup>136</sup> If

<sup>136</sup> Faulkner and Mackie, *Agriculture*, p. 68.

farmers were to employ bullocks, they had to consider the effect of smaller ridges on the space available for crop mixtures and interplantings; and the possible loss of yield from the main crops. After a thorough investigation spanning 'several years', Faulkner and Mackie's view was that 'no serious loss of yield occurred.'<sup>137</sup> This means that some loss of yield *did* occur, but officials did not consider the magnitude large enough to offset the overall (expected) advantages of animal-drawn ploughs over the traditional hoe. The question perhaps, is whether Faulkner and Mackie, hardly sympathetic to native farmers and obliged to promote the plough, could have reached an objective decision on what constituted a serious loss of yield for native farmers.

The second case bears more directly on the present argument. It was reported in 1944 in *Tropical Agriculture*, the journal of the Imperial College of Tropical Agriculture, then based in St. Augustine in the Caribbean island of Trinidad.<sup>138</sup> The case concerned experiments to establish the comparative response of yams to soil depth between flat ridges and traditional heaps. Once again, field experiments carried out in Nigeria and Tanganyika in 1922-30 showed that yam yields vary directly and significantly with the size and depth of heaps. As Faulkner reported in 1944, 'whenever different sizes of ridges were compared, a higher though not necessarily much higher, yield was invariably obtained from the bigger ridges than from smaller ones.'<sup>139</sup> Ridges also produced better yields than flat cultivation in the Nigerian experiments, although the results were less spectacular than the 600% increase in yield that was obtained in similar experiments in Tanzania.<sup>140</sup> I do not have any evidence to suggest that these findings have been controverted by new research. I however observed during a visit to the project farm in Ikole Ekiti in 1992 that extension staff themselves employed deeply cultivated heaps rather than flat ridges on their private yam plots adjacent to the project's demonstration plots!

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<sup>137</sup> *Ibid.*, p. 69.

<sup>138</sup> O. T. Faulkner, 'Experiments on Ridged Cultivation in Tanganyika and Nigeria', *TA*, XXI, 9 (1944), pp. 177-178.

<sup>139</sup> *Ibid.*, p. 177.

<sup>140</sup> *Ibid.*

It is not being suggested here that local farmers are aware of the above investigations, or that the findings have influenced popular attitudes to the animal draught or the tillage equipment as the case may be. New tools and techniques are often promoted before their real capacities or shortcomings have been fully appreciated.<sup>141</sup> It is also impossible to fully establish the impact on established farming practices of a new tool before the tool has been diffused and employed in ordinary circumstances. Since research findings trickle down very slowly to the farming public and hardly ever get down to ordinary farmers, local farmers' reaction to the present project's manual tillage equipment may yet be the average spontaneous response to the unknown.<sup>142</sup> Still, the above suggests that extension agents may have made exaggerated claims on behalf of implements which they themselves are less inclined to employ on their own fields.

The Ekiti-Akoko project also promoted an Advanced Service Package (ASP) for middle-ranking or enlightened farmers. An integrated package, ASP comprised inputs for food cropping as well as livestock farming, especially poultry and fisheries. Its tillage equipment is also powered by a 5 hp. (horse power) mini-tractor unit, which means that more farm operations could be undertaken mechanically. One hundred units of mechanized tillage tools were made available at a cost of N2,760 each,<sup>143</sup> and it was anticipated that about 5,000 farmers would use the ASP on 11,000 ha. of land.<sup>144</sup> Again, interested farmers were not obliged to buy the full ASP complement, but individuals who combined crop farming with animal husbandry were offered incentives like access to fertilizer credit that was otherwise unavailable to other farmers. ASP's mechanised equipment has, however, been criticised for being largely unsuitable for dryland operations. In Naik's view, rural labour was most probably cheaper than ASP's

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<sup>141</sup> Cf. G. K. Helleiner, *Peasant Agriculture, Government, and Economic Growth in Nigeria* (Homewood, 1966), p. 68.

<sup>142</sup> For a general analysis of unforeseen consequences, see Peter E. Hildebrand and Edgar G. Luna, 'Unforeseen Consequences of Introducing New Technologies in Traditional Agriculture', in Hildebrand (ed.), *Perspectives on Farming Systems Research and Extension* (Boulder, 1986), pp. 69-74.

<sup>143</sup> Naik, 'Commercial Services', p. 51.

<sup>144</sup> Patel, 'Agriculture', p. 3.

micro-tillage equipment for purposes of economical crop production.<sup>145</sup>

Finally, EAADP promoted a variant of ASP for large-scale farmers. This variant comprised conventional mechanised units, including a 60 hp. tractor with harrow, ridger, planter sprayer, trailer, and maize sheller, and cost about N23,000 per set. Thirty-nine such units were expected to be sold to medium and large farmers over five years.<sup>146</sup> Tractor-owning farmers were in turn expected to make their tractors available for full- or part-time commercial work, as the case may be.<sup>147</sup> As in the case of old Oyo and Osun Divisions, to which reference has been made, EAADP sought to 'expose farmers to the potential of mechanizing land preparation' and to create an adequate demand base which could sustain private tractor hire units in future.<sup>148</sup> Ultimately, it was expected that tractor services would be routed through the open market and cease to be public goods, first in the project area and then in other parts of Ondo State.<sup>149</sup> In the event, private interest in conventional tractors was virtually non-existent. A private market in tractor services in the project area also failed to take off as envisaged.<sup>150</sup>

Many reasons could be cited for this failure of expectations, but two deserve immediate mention. The first is the lack of prior demand for tractor services, especially in the absence of private enterprises to perform the facilitating roles which the British-American Tobacco Company, and later the NTC, have been performing in northern Oyo State since the 1930s. As shown below, demand activated by the project itself seemed too low to sustain economically viable tractor operations.

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<sup>145</sup> Naik, 'Commercial Services', p. 51.

<sup>146</sup> *Ibid.*

<sup>147</sup> *Ibid.*

<sup>148</sup> Dayo Phillip, 'The Demand for Tractor Services by Farmers in Kaduna State: Estimates and Policy Options', *Savanna*, 9, 1 (1988), p. 48.

<sup>149</sup> Jen Christensen, *Ekiti-Akoko Agricultural Development Project Final Report* (Ikole Ekiti, 1984), p. 63.

<sup>150</sup> *Ibid.*

Secondly, mechanisation credit was either exceedingly low or non-existent. By 1984 for example, the project had approved only 20 loans worth N5,960.55 or less than N300.00 each.<sup>151</sup> Six of these loan beneficiaries were from Ekiti Central LGA, where the credit averaged N372.60, while the remaining 14 beneficiaries from Akoko North LGA each obtained an average of N266.07.<sup>152</sup> Mechanisation credit was not granted to farmers from the remaining three LGAs. The reasons for this are not clear, though lack of funds is a most probable factor.

In any case, the above sums are too small, either as a whole or as averages per beneficiary, to cover the capital costs of tractors or associated machinery. Igede-based respondent 2607 told me he raised N13,000 worth of credit from informal sources to acquire a used tractor in 1990.<sup>153</sup> If his experience is any guide, EAADP's mechanisation credit was most certainly disbursed in kind, with recipients debited for the value of mechanized services provided on their plots by the project's tractor unit. Even so, the total value of N5,960.55 up to 1984 amounted to only 7.1% of revenue (total N84,180.00) earned from the PTHU's commercial operations during the first half of that year.<sup>154</sup> This suggests clearly that most of the unit's operations were probably paid for in cash, and that the project would not have incurred additional costs to recover debts from beneficiaries of mechanization credit. In fact, the recovery rate amounted to 74% for Ekiti Central LGA and 38% for Akoko North, averaging 52% in both cases.<sup>155</sup> Yet, the lack of credit also means that ambitious but cash-poor farmers would have been precluded from experimenting with mechanization. On balance, the situation is likely to have depressed the potential demand for tractor services by small farmers.

At another level, the absence of credit clearly increased the opportunity costs of private

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<sup>151</sup> EAADP, *Annual Report 1985*, Annexure 3i, p. 63.

<sup>152</sup> *Ibid.*

<sup>153</sup> Interview, 15 April 1992. Follow-up interviews held intermittently between April and June 1992.

<sup>154</sup> Revenue figures obtained from Christensen, *Final Report*, Table 20, p. 61.

<sup>155</sup> According to Clayton ['Mechanisation', p. 323; p. 328], poor loan repayment was a key failure factor in government-owned tractor hire units in East Africa in the 1960s.

investment in tractors and machinery. For one, the Ondo State Agricultural Credit Corporation (OSACC), a main plank in the project's credit operations, was severely incapacitated in financial and operational terms alike. OSACC always had a low capital base and failed to meet its obligations to its main commercial bank creditors. In 1978/79, on the eve of project operations, the corporation approved only 22% of the total amount requested by farmers; about two-thirds of the approved sum or 8.4% of the amount requested was disbursed.<sup>156</sup> OSACC's operational costs also exceeded its loan disbursements by 12% in 1982-85 and by an incredible 11,266% in 1983 alone!<sup>157</sup> This is necessary evidence of gross failure to achieve economies of scale from granting more credit.

The state government's failure to provide N2.5 million in cash to OSACC only worsened the corporation's weak financial state. By 1985, OSACC approved 40% of 6,078 applications for credit, but these amounted to only 23.4% of the total value requested.<sup>158</sup> In the absence of additional cash to augment its loanable funds, OSACC could not administer medium and long-term credit to support or activate private investment in equipment, tools and land development.<sup>159</sup> The corporation's short-term (or arable crop) loan funds were also diverted in 1984 to finance the procurement of 30 units of new equipment for project use. Along with existing stock, these formed the nucleus of a project-owned tractor hire unit (PTHU) that continued the tradition of government-sponsored tractor hire in the project area. This scheme is examined below.

As a whole, neither BSP nor ASP was a commercial success. Official projections that both packages would be adopted in up to 70% of all farm holdings in the project area

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<sup>156</sup> Adeniyi Osuntogun and Olufemi Oludimu, 'Extending Agricultural Credit through Public Institutions in Nigeria: A Comparative Study of the Ondo State Agricultural Credit Corporation and the Ogun State Agricultural Development Corporation', *OAS*, X (1981), p. 91.

<sup>157</sup> Olu Omopariola, 'Financing Agricultural Development: A Case Study of the Ondo State Agricultural Credit Corporation', in A. O. Sanda (ed.), *Corporate Strategy for Agricultural and Rural Development in Nigeria* (Ibadan, 1988), p. 104.

<sup>158</sup> Computed from *Ibid.*, Table 4, p. 104.

<sup>159</sup> Naik, 'Commercial Services', p. 60.



also proved unrealistic. The lacklustre performance has been explained in different ways. For example, Naik has attributed it to technical and managerial lacunae. Specifically, Naik suggests that the project managed to retain engineering consultants for only one-fifth of 30 months envisaged in the Staff Appraisal Report. As indicated previously, the project could not recruit highly qualified staff and also experienced a remarkably high turnover of senior, especially expatriate, personnel. It seems logical to surmise that a lower staff turnover could have improved the project's overall situation just as a longer agricultural engineering consultancy could have helped to domesticate BSP and ASP or at least improve their commercial fortunes. Naik's position is thus reasonable to the extent that internal factors can explain the project's performance in relation to its agricultural goals.

In my view, however, deeper explanations for the low take-up of project packages lay in the design of the packages themselves. The appropriateness of technical packages is prior to project implementation and clearly beyond management's control. Since ADPs do not have ultimate control over peasant access to productive factors, especially land,<sup>160</sup> it is difficult to see how an extended consultancy could have increased demand for labour-saving tools in the short run. To blame project management for the lack of effective demand for hand-pushed fertilizer applicators or tractors is to hit a straw man.

The World Bank itself has now acknowledged, anyway, that the tools promoted in the 1980s by Ekiti-Akoko and 12 other ADPs in Nigeria were inappropriate for small scale farm operations.<sup>161</sup> Before the Bank admitted this lacuna, Christensen had noted that it was 'totally wrong or, at best, misleading' for the SAR to have prescribed two separate service packages (i.e. BSP and ASP) for sole cropping when mixed cropping 'is and should be the rule.'<sup>162</sup> According to him, the project could have started with a basic and advanced service package for each category of farmers, or with developing and

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<sup>160</sup> D. L. Eyoh, 'Reforming Peasant Production in Africa: Power and Technological Change in Two Nigerian Villages', *DaC*, 23, 2 (1992), p. 46.

<sup>161</sup> World Bank, *Rural Development* (1988), p. 75.

<sup>162</sup> Christensen, *Final Report*, p. 16.

encouraging the widespread adoption of a basic package for all farmers as a prelude to incremental 'improvement towards a more advanced level.'<sup>163</sup> In short, BSP and ASP stood no substantial chance of market-driven success. Neither did EAADP's tractor hire scheme, the subject of the next section.

## 8.6 The Project's Tractor Hire Scheme

The Ekiti-Akoko project established a tractor hire scheme as part of its campaign to bring the full benefits of mechanisation to farmers who may be unable or unwilling to invest large sums of money in tractors and equipment. The achievements of the scheme however depended as much on local demand for tractor services as on their management and policy support. This section examines the operations of the project's tractor hire unit (THU) in these terms.

The need for a THU owned or at least controlled by EAADP can hardly be overstated. For one, the project was obliged to create conditions favourable to expanded tractor use in its operational area. For another, the project had its own demonstration and food-crop farms to cultivate by mechanical means. The absence of private tractor operators at the local level also meant that the only existing THU was the one based in the Department of Agriculture. Government-owned THUs have been widely acclaimed, however, for their unreliable and often inefficient services.<sup>164</sup>

Moreover, the project enjoyed (or was supposed to enjoy) operational autonomy from existing departmental units and in fact took over direct responsibility for farm operations in the Ekiti-Akoko area. In a technical sense therefore, government's THU and the project's were invariably going to compete with each other in the tractor services market in areas bordering the project area if not in other parts of Ondo State. In any case, the project was also expected to spearhead a commercial orientation in agricultural production. Since commercialisation is largely antithetical to the generalised orientation

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<sup>163</sup> *Ibid.*

<sup>164</sup> This is one major reason that Kolawole's respondents advanced for buying their own tractors. See Kolawole, 'Tractor', p. 178; cf. Clayton, *Agriculture*, p. 167.

of Nigeria's civil services, it would have been illogical, or perhaps self-defeating, if EAADP had to rely on the state's THU for its mechanized farm operations.

The PTHU took off in 1982 with 29 tractors and a variety of equipment, including ploughs, harrows, ridgers, planters, and sprayers but excluding tilling equipment. The tractor complement included 17 tractors which ODSG had bequeathed to the project as part of the jurisdictional change referred to above. This initial fleet was expanded subsequently to enable PTHU provide mechanised farm operations to private farmers on a commercial basis in addition to work on the project's own farms.<sup>165</sup> In 1983 for example, 10 harrows, four ridgers and five planters were added to PTHU's stock of equipment.<sup>166</sup> Six tractors, 10 ploughs and eight harrows were added one year later. By 1986, PTHU's equipment included 38 (mainly Steyr) tractors, 34 ploughs, 28 harrows, 17 ridgers, 12 planters, 4 sprayers, and 21 trailers.<sup>167</sup> The unit's first set of five tilling equipment was also acquired in 1986. In formal terms therefore, the unit seemed well equipped enough to spread the gospel of farm mechanisation among its beneficiaries.

Tractor deployment by EAADP was in fact less remarkable than the above figures suggest. Some of the tractors from ODSG were old and did not seem to have been well maintained by their previous operating agency, the state's Ministry of Agriculture. The tractors therefore broke down incessantly as PTHU sought to expand demand for its services. About half (in fact between 46% and 57%) of PTHU's tractors was regarded as 'good' in any of five years to 1986 while 'fair' tractors amounted to between 9% and 35% of the entire tractor fleet (Table 8.3). In turn, 10.3% of all tractors (n=29) were 'bad' or unserviceable in 1982, PTHU's first operational year. In 1983, the number of bad tractors rose by more than double to 28% of the total tractor fleet. Thereafter, at least one-third of the entire complement of tractors (n= 35, 38) was unserviceable in any one year, reflecting perhaps the deteriorating conditions of PTHU's bequest. By 1984,

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<sup>165</sup> Christensen, *Final Report*, pp. 52-53.

<sup>166</sup> Extracted from EAADP, *Internal Completion Report*, p. 89.

<sup>167</sup> *Ibid.*

26 tractors in the unit's commercial fleet were old, eight of them 'in bad shape'.<sup>168</sup> On average, only 52% of PTHU's tractors were 'good' in any one year; 18% were considered 'fair'; and 30% were unserviceable.

**Table 8.3**  
**Operational Condition of PTHU's Tractors, 1983-86**

Year	Total N° of tractors	Operating condition (% of all tractors)		
		Good	Fair	Bad
1982	29	55.2	34.5	10.3
1983	29	55.2	17.2	27.6
1984	35	57.1	8.6	34.3
1985	35	45.7	17.1	37.1
1986	38	47.4	18.4	34.2
Average N <sup>o</sup> %	33 100.0	17 51.5	6 18.2	10 30.3

Note: \* Rounded up to the nearest whole number.

Computed from: EAADP, *Internal Completion Report*, Table 3.9, p. 89.

The unit did dedicate a substantial part of its equipment to commercial operations, though available information is conflicting on the number of tractors so set apart. According to Christensen, some 42 tractors were deployed on custom work in private farms by 1983. By mid-1984, 31 tractors were similarly engaged.<sup>169</sup> The *Internal Project Completion Report* (IPCR) contains significantly different figures and casts a shadow of doubt on the Project Manager's review of tractor deployment by PTHU. According to the IPCR, the entire project had no more than 29 tractors in 1983. Although the fleet was expanded subsequently, the unit's tractor complement increased only slightly to 35 in 1984 and peaked at 38 in 1986. It is of course possible that Christensen's figures included mowers or agricultural machinery other than tractors, especially since he did not classify PTHU's equipment as rigorously as in the IPCR. In the absence of more information, it is not possible to determine this question either way.

What is clear is that the PTHU demonstrated its potential to activate demand for tractor

<sup>168</sup> Christensen, *Final Report*, p. 61.

<sup>169</sup> *Ibid.*

services very early. At the end of 1983, output amounted to just 1,247 ha. for all operations (Table 8.4). Six months later in June 1984, PTHU's output had risen by 122% to 2,763 ha. Output had thus more than doubled in the third half-year of PTHU's operational life. Using Christensen's figures on tractor deployment (n=42), output per tractor amounts to about 30 ha. in 1983. If the six tractors that 'were in bad shape' in 1983 are excluded, average output per tractor would rise to about 35 ha. Average increase in output per tractor would therefore range between 158% (excluding bad tractors) and 200% (including all tractors) between 1983 and mid-1984. Yet, this total output amounted to only 10-30% of possible output per tractor, using as base figures Purvis' estimate of 535 tractor hours per annum.<sup>170</sup>

**Table 8.4**  
**Ekiti-Akoko PTHU: Comparative Output Figures, 1983-84**

(1) Operation	(2) Output (ha.)		
	(a) 1983	(b) 1984 <sup>a</sup>	(c) % change (b-a ÷ a x 100)
Ploughing	541	796	47.1
Harrowing	425	750	76.5
Ridging	114	97	-14.0
Planting	155	617	298.1
Spraying	12	503	4,091.7
Total	1,247	2,763	121.6
Average per tractor	29.7	89.1	200.0
N <sup>a</sup> of tractors	42 <sup>b</sup>	31	-

Notes: <sup>a</sup> To 30 June. <sup>b</sup> Including six tractors 'in bad shape'.

Source: Cols. 2(a) and 2(b) Christensen, *EAADP Final Report*, p. 61; col. 2(c) computed.

The above trends were largely maintained until 1986. A total of 13,375 ha. were mechanized by the project in 1982-86 (Table 8.5). This amounts to 2,675 ha. per annum for all operations. Ploughing and harrowing account for about 61% of this output; planting took 16.7% and spraying about 12%. Land clearing and ridging accounted for about 5% of total output. Total mechanized output increased by 170% after the first operational year and by another 40% in 1984. The unit's output began to decline in 1985, initially by one-third of 1984 levels and less steeply thereafter. Table 8.5 suggests

<sup>170</sup> Purvis' estimate obtained from Oni, 'Prospects', note g, p. 135.

nonetheless that a sizeable potential market for mechanized services exists in the project area.

**Table 8.5**  
**Mechanisation Output by Main Purposes, 1982-86 (ha.)**

Purpose	Total	Years				
		1982	1983	1984	1985	1986
Land clearing	659.3	-	148.0	99.0	247.8	164.5
Ploughing	4,127.8	444.6	1,068.8	1,103.4	708.7	802.3
Harrowing	4,026.0	429.2	980.4	1,191.3	714.0	711.1
Ridging	742.8	61.0	156.8	232.6	184.8	107.6
Planting	2,229.8	108.5	355.8	808.8	518.7	438.0
Spraying	1,589.6	-	182.4	629.0	344.7	433.5
Total	13,375.3	1,043.3	2,892.2	4,064.1	2,718.7	2,657.0
% change	-	-	64.0	40.5	-33.1	-2.7

Source: EAADP, *Internal Completion Report*, Table 3.7, p. 87. Except land clearing, from Table 3.12, p. 94.

Table 8.6 presents an index of PTHU output in 1982-86, with 1982 as base year (except land clearing and spraying with 1983 as base year). The indices suggest that output levels were remarkably high relative to 1982 base levels, except in land clearing and spraying where output moved haphazardly. In all cases, output peaked in 1984 and declined

**Table 8.6**  
**Index of PTHU Output, 1982-86 (1982=100)<sup>a</sup>**

Operation	Years/Indices			
	1983	1984	1985	1986
Land clearing	100.0	66.9	167.4	111.1
Ploughing	240.4	248.2	159.4	180.5
Harrowing	228.4	277.6	166.4	165.7
Ridging	257.0	381.3	303.0	176.4
Planting	328.0	745.4	478.1	403.7
Spraying	100.0	344.8	189.0	237.7
Total	277.2	389.5	260.5	254.7

Note: <sup>a</sup> 1983 = 100 for land clearing and spraying.  
Base figures from: same as Table 8.5.

thereafter, reflecting the problems occasioned by Bank withdrawal from the project and the consequent departure of its expatriate managers. Two key internal factors may also

be mentioned, namely, the policy inertia that comes after each coup d'état as in Nigeria in 1984, and the level of skills that the new management team, drawn from the state's civil service, brought to bear on project operations from 1984.

Output per tractor increased reasonably in 1982-86, with average figures exceeding those reported for the old Oyo Division in the 1970s (Table 8.7). Average output per tractor ranged from 26.0 ha. to 116.1 ha. with the total number of tractors (IPCR's figures) as denominator (col. 3a, Table 8.7). If bad tractors are excluded, output rises to between 40.2 ha. to 176.7 per tractor per annum (col. 3b). In both cases, the lowest average output figures were recorded in 1982 while peak output levels were achieved in 1984. Average output per tractor per annum thus amounted to 80.6 ha. for all tractors and to a relatively high 114.3 ha. per annum without unserviceable tractors. Column 3c expresses differences between column 3a and column 3b as a percentage of entries in column 3a. The differences range from 12% in 1982 to 59% in 1985, averaging 42% per annum in 1982-86. They translate to the proportion of output that the PTHU lost to its unserviceable tractors in form of losses on capital or on revenue from expanded (or potential) demand for tractor services.

**Table 8.7**  
**Output per Tractor per Annum, 1982-86 (ha., all operations)**

(1) Year	(2) Total output	(3) Output per tractor		
		(a) All tractors	(b) Excluding 'bad' tractors	(c) % difference (b - a ÷ a x 100)
1982	1,043.3	36.0	40.2	11.7
1983	2,892.2	99.7	137.7	38.1
1984	4,064.1	116.1	176.7	52.2
1985	2,718.7	77.7	123.6	59.1
1986	2,657.0	70.0	106.3	52.0
Total	13,375.3	80.6	114.3	42.0

Source: EAADP, *Internal Completion Report*, Table 3.7, p. 87; and Table 3.12, p. 94, except col. 3c computed by me.

Nonetheless, PTHU's output figures are remarkably higher than those reported in Kolawole's survey of tractor operators. In 1970-73, output per tractor in old Oyo

Division ranged from 24.3 ha. to 70.4 ha. and averaged 48 ha. per annum.<sup>171</sup> Output per tractor however differed according to ownership, with individual operators recording an average output of 32.3 ha. per annum as opposed to 64.3 ha. and 179.3 ha. by company owners and group (or cooperative) owners respectively.<sup>172</sup>

Tractor output per unit of time also increased in the first 18 months to June 1984, perhaps as part of the initial momentum in PTHU's operations. As Table 8.8 shows, the number of tractor hours per hectare decreased in all major operations (spraying and transport are excluded for lack of data). The size of savings on operating time however differs remarkably between operations. In the case of ridging for example, only a modest 5% reduction in tractor hours per hectare was realised. More significant savings of 22-24% were achieved on planting and harrowing, with ploughing operations indicating a relatively high 44% savings on operating time. Efficiency gains on tractor operating time averaged 40% for all operations over eighteen months to June 1984. Even if one assumes

**Table 8.8**  
**Average Tractor Time per Hectare, 1983-84**

Operation	N <sup>o</sup> of hours per hectare		
	(1) 1983	(2) 1984 <sup>a</sup>	(3) % change (2 - 1 ÷ 1x100)
Ploughing	5.05	2.82	44.2
Harrowing	2.02	1.58	21.8
Ridging	2.07	1.97	4.8
Planting	2.01	1.53	23.9
Spraying	2.00	1.42	29.0
Overall average	3.39	2.02	40.1

Notes: <sup>a</sup> At 30 June.

Computed from: Christensen, *Final Report*, p. 61.

a 50% decline in performance from peak-season difficulties with the 'scheduling and time-tabling of farm visits'<sup>173</sup>, or more specifically from the allocation of tractors

<sup>171</sup> Computed from Kolawole, 'Tractor', Table 7, p. 180.

<sup>172</sup> *Ibid.*

<sup>173</sup> Clayton, *Agriculture*, p. 167.



between distant locations in the second half of 1984, PTHU would still have recorded a 20% improvement on its operational efficiency for 1983. Comparative figures on tractor time per unit of land are not available, but PTHU's performance are likely to be similar to existing experience in Western Nigeria's savanna region.

**Table 8.9**  
**Output per Tractor Hour, 1983-84 (ha.)**

(1) Operation	(2) Output		
	(a) 1983	(b) 1984 <sup>a</sup>	% change (b-a ÷ a x 100)
Ploughing	0.20	0.36	80.0
Harrowing	0.49	0.63	28.6
Ridging	0.48	0.51	6.3
Planting	0.49	0.66	34.7
Spraying	0.50	0.71	42.0
Overall average	2.16	2.87	32.9

Notes: <sup>a</sup> At 30 June.

Computed from: Christensen, *Final Report*, p. 61.

Efficiency gains in tractor time could be expressed in output as well as revenue terms. To obtain output per tractor hour, the procedure used in Table 8.8 had only to be reversed, making tractor time the denominator. With regard to output, Table 8.9 suggests increases of between 30% and 40% per tractor hour in harrowing, planting and spraying and a remarkable 80% increase in ploughing in 1983-84. The average increase in output per tractor hour for all operations is 33%. Again, these figures accord with results obtained in Western Nigeria's farm settlement scheme, wherein tractor output per hour was 0.20 ha. for ploughing; 0.61 ha. for harrowing and ridging; and 0.81 ha. for planting.<sup>174</sup> Ekiti-Akoko PTHU's output was not far off the mark on each and every operation.

Table 8.10 presents data on the revenue effect of PTHU's increasing technical efficiency. The table suggests clearly that the unit improved its earnings per hour on all operations. For example, harrowing and planting operations showed increases of 28% and 31%

<sup>174</sup> Computed from Oni, 'Prospects', Table 7, p. 127.

respectively, while revenue per hour of spraying operations rose by 41%. Ploughing was the most remarkable at 79.4% over and above 1983 levels. On average, PTHU's revenue per tractor hour improved by 37.3%.

**Table 8.10**  
Average Revenue per Tractor Hour, 1983/84 (current Naira)

(1) Purpose	(2) Revenue earned		
	(a) 1983	(b) 1984 <sup>a</sup>	(c) % change (b - a ÷ a x 100)
Ploughing	9.90	17.76	79.4
Harrowing	9.90	12.76	28.0
Ridging	9.62	10.16	5.6
Planting	9.97	13.11	31.5
Spraying	10.00	14.13	41.3
Average	9.88	13.57	37.3

Note: <sup>a</sup> As at 30 June.  
Source: Same as Table 8.9.

It is not clear however if these figures include the cost of tractor journeys between farms. Purvis has estimated that tractors spend two hours per day travelling to and from farmsteads in Oyo Division. According to Wells, this factor alone has increased costs per acre by at least 33% of actual costs of on-site operations.<sup>175</sup> Unlike in Oyo Division however, PTHU's charges are assessed per hectare rather than on fixed hourly rates.<sup>176</sup> The unit's improved revenue situation would thus acquire added significance if it included the cost of journeys between base and sites or between farms. If these costs are excluded, as it seems likely, then increased earnings per tractor hour may have resulted from two factors. The first is if travel time has been reduced drastically because the farms serviced by PTHU are contiguous or not too far apart. This would in turn mean that the demand for tractor services has been relatively localised, suggesting areas where future mechanisation campaigns would be more productive. Scholars are in fact agreed that mechanisation is more cost-effective when pursued at small-scale levels.<sup>177</sup> This would

<sup>175</sup> Wells, *Policy*, p. 309; note 19, p. 329.

<sup>176</sup> Oni, 'Prospects', p. 125.

<sup>177</sup> Pingali, Bigot, and Binswanger, *Agricultural*, p. 11. Cf. Wells, *Policy*, p. 311.

translate to specific communities in the present context.

The second, and perhaps more obvious factor is if the PTHU had been able to reduce its operating costs and, or increase user charges, for example by tying such charges to market trends or reducing implicit subsidies. The unit's user charges were however determined administratively and remained fixed in spite of rising costs (e.g. of imported spare parts) and personnel charges in Nigeria in the early 1980s. User charges were also unaffected by the upward revision of input prices by the project in March 1984.<sup>178</sup> This suggests clearly that the efficiency gains indicated above had resulted from little, if any, relationship with prices charged by the PTHU. It is possible, however, that such gains reflect lower production costs made possible, for instance, by economies of scale from fuller utilisation of its capital stock.

I do not have primary data on PTHU's capital or operating costs and cannot therefore resolve this question either way. A broad picture of the unit's overall performance could be obtained nonetheless by comparing its output and productivity with available estimates for the scheme in Oyo Division. This does not in any way imply that tractor operations in Oyo Division were economically efficient; rather that the experience provides some backdrop from which a broad picture of the economic aspects of PTHU's operations could be obtained.

Table 8.11 presents disaggregated information on the structure of demand for tractor services in both cases. The data suggest similar trends in the distribution of tractor hours between different operations. More tractor hours were however recorded on transport operations in Oyo. This could mean that farmsteads are more distant or that access roads are far worse in Oyo than in the Ekiti-Akoko area. It is likely however that the tractor-population density in Oyo was much higher than in the Ekiti-Akoko area. It is also possible, as a result of this fact, that Ekiti-Akoko farming families rely more on alternative arrangements, especially waged or unwaged human portorage, to convey their produce from farm to village or market, as the case may be.

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<sup>178</sup> *Farmers' Friend* (EAADP's newsletter), 2 (1984), pp. 3-4.

**Table 8.11**  
**Distribution of Tractor Hours by Main Operations (% of total N<sup>o</sup> of hours)**

(1) Operation	(2) Western State (1967)	(3) Ekiti-Akoko PTHU	
		1983	1984 <sup>a</sup>
Ploughing	32.0	64.7	40.0
Harrowing	21.7	20.3	21.1
Ridging	1.4	5.6	3.4
Planting	9.4	7.4	16.8
Spraying	-	0.6	12.7
Transport	25.3	1.3	5.7
Other	10.2	0.1	0.3
Total	100.0	100.0	100.0
N <sup>o</sup> of hours	n.a.	4,225	5,605

Note: <sup>a</sup> As at June 30.

Sources: Col. 2 adapted from Oni, 'Prospects', Table 5, p. 124; col. 3 computed from Christensen, *Final Report*, p. 61.

Equipment utilisation at the PTHU was, however, far from being optimal. Purvis has estimated that a tractor could be deployed for 535 hours per annum in Western Nigeria's savanna zone.<sup>179</sup> With this as base figure, and Christensen's data on tractor hours, tractor utilisation ratios at the PTHU for 1983 and 1984 were computed. Separate ratios were calculated for conflicting figures (i.e. IPCR and the Project Manager's) on the number of tractors and, in each case, for serviceable and unserviceable tractors (Table 8.12).

On IPCR's figures, the ratios are 28.6% per tractor if the total number of tractors is used and 41.5% if bad tractors are excluded. Christensen's figures suggest lower ratios: about 27% per tractor if all tractors are included and 28% if bad tractors are excluded. Tractor utilisation averaged 27% to 35% in either case, suggesting considerable underemployment of PTHU's equipment in 1983 and 1984. It is most unlikely that tractor utilisation would have improved after demand started to decline in 1984.

<sup>179</sup> Oni, 'Prospects', p. 135, note g.

**Table 8.12**  
**Tractor Utilisation in EAADP (N° of hours per annum)**

Source	(2) Hours per tractor per annum			(3) Utilisation ratio (%) [2c ÷ 535x100]
	(a) 1983	(b) 1984	(c) Average (a+b÷2)	
<i>IPCR</i> <sup>a</sup>				
All tractors	145	160	153	28.6
Excl. bad tractors	201	243	222	41.5
Christensen <sup>b</sup>				
All tractors	101	181	141	26.4
Excl. bad tractors	117	181	149	27.9

Sources: <sup>a</sup> EAADP, *Internal Completion Report*. <sup>b</sup> Christensen, *Final Report*, p. 61.

Available official reports also suggest that PTHU was virtually overwhelmed by its difficult operational circumstances and uncompetitive. Reference has been made to the possible output costs of the unit's unserviceable tractors. According to Christensen, operators and supervisors alike lacked adequate knowledge and technical expertise. Also, a profusion of makes of tractors and other equipment also created problems of standardisation and made spare part holding as well as repairs difficult. Field sizes were often small per unit area and sometime unsuitable for mechanisation because of the density of tree stumps.<sup>180</sup> While these resulted in incessant breakdown of tractors and equipment, the project often did not have the cash to procure spare parts to make most of its equipment serviceable, largely because it was underfunded by the state government.<sup>181</sup> Late delivery of new equipment by suppliers also compounded the problem. In 1986 for example, three tractors, 15 disc ploughs, five harrows and four planters were delivered well after the end of peak season demand for farm mechanisation.<sup>182</sup> As indicated earlier, the project did not acquire its first tilling equipment until 1986.

In the final analysis, despite early growth, PTHU failed to realise its development

<sup>180</sup> Christensen, *Final Report*, p. 63.

<sup>181</sup> *Ibid.*; Naik, 'Commercial Services', pp. 52-53.

<sup>182</sup> EAADP, *Internal Completion Report*, p. 89.

potential. The unit is believed to have missed commercial opportunities in road construction because it lacked appropriate equipment for road works. Even less exacting demands by farmers were met only after substantial delays. At Igede, one respondent explained that he reverted to manual preparation of land because PTHU-induced delays had proved too expensive for his operations.<sup>183</sup> This is clearly necessary evidence of inefficiency in view of capital underutilisation suggested by the foregoing analysis. Similar experiences, or their prospect, may have deterred many more aspirant farmers. The same consideration may also provide a partial explanation for the decrease in demand for PTHU's services after EAADP's expatriate managers left Nigeria in 1984.

## 8.7 Conclusion

Mechanisation is at the cutting edge of the oft-cited link between global agribusiness and small-scale farming in developing countries.<sup>184</sup> As such, it offers broader scope for cross-national analysis of macro-economic and sectoral policies than other IRD programme components. This chapter has examined the general social context and policy environment of successful mechanisation in Asian and Latin American countries since the 1960s to highlight the mix of policy measures that promoted mechanisation. The chapter also evaluated Nigeria's experience since the 1920s, emphasising specific schemes in the old Oyo Division in Western Nigeria's savanna belt in the 1970s and in the Ekiti-Akoko area in the 1980s.

Clearly, mechanisation has been far more successful in Asia and Latin America than in Nigeria, and in the former Oyo Division than in Ekiti-Akoko. The common denominator in all three cases has been policy support or the lack of it - in the form of subsidies on capital costs, repairs, maintenance, assured markets or price guarantees that ensure minimum return on investment. But although it has been, and will probably remain a key element, policy support is but one small part of the complex processes of change that successful mechanisation constitutes. Policies are by definition *reactive* statements of intent which feed on existing experiences and perceived potential to generate preferred

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<sup>183</sup> Interview with Samuel Ogar, 15 April 1992.

<sup>184</sup> See, e.g., Barbara Dinham and Colin Hines, *Agribusiness in Africa* (1983).

outcomes from future behaviour. The success of mechanisation programmes depends, therefore, on more elemental, *pre-disposing* circumstances, especially natural factor endowments like land-labour and capital-labour ratios, vegetation, soil profiles, and rainfall distribution. An appropriate mix of these factors, as in closely-settled districts in Asian and Latin American countries in the 1960s, and to some extent in northern Nigeria, could justify the opportunity costs of mechanisation in the medium and long terms. Otherwise, subsidies merely distort the economy, substituting a cheap input with an expensive one without necessarily providing credible alternative uses for existing factors in the immediate or short terms or guaranteeing substantial returns in the long term.<sup>185</sup>

Within this context, Ekiti-Akoko ADP's mechanisation drive was a demonstration exercise *per excellence*. Its value lay not in providing 'immediate or direct economic returns or yield[ing] quick and visible results', but in intensifying existing distinctions and contradictions between labour and capital-intensive farming and creating the foundations for expanded use of mechanised services in the long term.<sup>186</sup> Effective demand for the labour-saving components of its service packages was nil. Private interest in tractors was also non-existent, but the project's tractor hire unit did expand demand for tractor services after 1982. Overall demand remained too low, however, to sustain an economically viable tractor hire unit. The reasons for this lacklustre performance lay in intra-project difficulties as well as in local factor endowments, but the experience also highlights mechanisation's ambiguous prospects in a land-surplus peasant economy.

In Western Nigeria, mechanized farming schemes have existed as islands in a sea of indigenous, low-technology farming methods. That Western Nigeria has had to skip animal traction may at first seem like an advantage, since tractors are more efficient than animals. But 'stage-jumping' also distorts the evolutionary process. The absence of draught animals means Western Nigeria has been unable to employ less encompassing, intermediate technical equipment but moved from one end of the spectrum to another.

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<sup>185</sup> Cf. Binswanger, *Mechanisation*, p. 185.

<sup>186</sup> Dennis A. Rondinelli, *Development Projects and Policy Experiments* (2nd ed. 1993), p. 119; cf. Amit Bhaduri, *The Economic Structure of Backward Agriculture* (1983), p. 139.

The wide hiatus between manual and mechanised farming techniques has been shown to make learning more difficult and to increase the economic and social costs of adopting new technology.<sup>187</sup>

High tree-stump densities have made the transition to the plough less cost-effective in forest-fallow and bush-fallow systems, such as the Ekiti-Akoko area, than in areas with lower tree densities, as in northern Nigeria. As Pingali, Bigot, and Binswanger remarked, the removal of roots and stumps is 'a far more arduous task than clearing away the vegetation at the surface', requiring additional labour overheads and further increasing the cost of, and disincentive to, mechanisation.<sup>188</sup> In the 1950s, the Western Region Government abandoned a grouped farm at Irele/Oke-Ako, within Ekiti-Akoko project area, because the machinery broke down incessantly from the strains occasioned by stumping, and because 'the farm was 200 miles from the nearest spares and repairs depot, imposing excessively high transport costs.'<sup>189</sup> Lack of access to repairs was most certainly less potent in EAADP's case, but the risk of frequent, vegetation-induced breakdown of equipment and associated operating and maintenance costs had not receded substantially in the 1980s.

Mechanisation still represents real ecological danger to savanna soils. Reference has been made in chapter 5 to the World Bank's admission that Ekiti-Akoko soils are not particularly suitable for mechanized cultivation. Acute observers of Nigerian agriculture have argued for much longer that land clearing and de-stumping by mechanical means often 'lead..to an inversion of the soil [and] result...in loss of fertility' or soil erosion.<sup>190</sup> Unlike forest soils, savanna soils have thinner vegetational cover and are prone to more 'intense oxidation, leaching and accelerated soil erosion due to exposure

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<sup>187</sup> Pingali, Bigot, and Binswanger, *Agricultural*, pp. 30-35.

<sup>188</sup> *Ibid.*, p. 35; p. 31.

<sup>189</sup> WRN, *Annual Report of the Department of Agriculture, Western Region for the Year 1952-53* (Ibadan, 1957), p. 11.

<sup>190</sup> M. I. Kolawole, 'The Land Clearing and Stumping Problem: Nature, Causes and Some Solutions', *Savanna*, 7, 1 (1978), p. 49.



to rainfall and radiation.<sup>191</sup> The removal of cover vegetation, which often results from the use of heavy equipment, generally disrupts the regenerative process in savanna soils and could reduce their productivity. Extensive land clearing by mechanical means also leaves the roots of weeds untouched, encourages quick regrowth, increases weeding requirements and pushes up labour costs. In short, the social costs of mechanisation - for example, lower carrying capacity of local soils, erosion, and environmental damage - are high and could outweigh relatively short-term output and productivity gains in particular circumstances.

Land-population ratios are also emphasised in the mechanisation literature.<sup>192</sup> Experience has shown that mechanisation expands rapidly when the land-labour ratio is decreasing on account of acute urbanisation, or where tenurial arrangements allow landlords to meet commercial demand for land at the expense of smallholders.<sup>193</sup> In the Ekiti-Akoko area, on the contrary, access to farmland is limited mainly by labour supply than by supply constraints. As shown in chapter 6, the land-labour ratio has not shifted significantly enough to make tractorisation a preferred option by smallholders, making middle peasants and businessmen-farmers more viable targets for mechanisation.<sup>194</sup> Few ambitious small-farmers have been discouraged, however, by delays occasioned by administrative or operational difficulties in available THUs. Yet, since land fragmentation and smallholdings are not likely to change overnight, widespread use of mechanical power by Ondo State's small farmers is *not* feasible until mechanisation's generalised benefits have been shown to be realisable and worth the risks at individual farm level.<sup>195</sup>

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<sup>191</sup> A. H. Kassar and J. M. Kowal, 'Productivity of Crops in the Savanna and Rain Forest Zones of Nigeria', *Savanna*, 2, 1 (1973), p. 49.

<sup>192</sup> Cf. Binswanger, *Mechanisation*, pp. 5-7; Pingali, Bigot, and Binswanger, *Agricultural Mechanisation*, pp. 147-151.

<sup>193</sup> Clayton, *Agriculture*, p. 163; Ahmad, 'Implications', pp. 18-20; pp. 28-29.

<sup>194</sup> Cf. IBRD, *Accelerated Development in Sub-Saharan Africa* (Washington, D.C., 1981), p. 53.

<sup>195</sup> Faulkner and Mackie, *Agriculture*, p. 7.

The question, therefore, is whether it is worth it socially and economically to pursue a programme of mechanisation in Ondo State, or indeed in Nigeria's circumstances in the 1980s. There is much to be said in favour of experimental schemes like EAADP's, more so if they could address Ondo State's food shortage problem through output and productivity increases. As the analysis showed, however, available technical packages *would* require further redesigning or scaling-down to suit small-farmers' socio-technical circumstances. Otherwise, state policy would be supporting a systematic retrenchment of labour, the most important resource in small-scale agriculture to date, at the same time as prospects for alternative employment opportunities in industry or even construction look dim, at least in the medium term.

Above all, investment on tractors *is* a high-risk venture with very low return potential in the short term.<sup>196</sup> This raises the question of subsidies, a central theme in the Asian mechanisation miracle, as shown in section 5.2. Clearly, the Nigerian economy could not have afforded massive subsidies in the 1980s, a period marked internally by declining oil incomes and rising debt obligations<sup>197</sup> and externally by largely negative attitudes to state activism in Africa and the developing world.<sup>198</sup> Moreover, widespread use of mechanical power in Nigeria's small farm sector could increase domestic fuel consumption by up to one-third, reducing the volume of oil sales in foreign markets or increasing the volume of imported refined fuel. The one implies lower earnings in from oil sales and the other additional expenditure - both cutting deep into government's in foreign exchange revenue (currently about 90% dependent on oil rents) as well as the economy's import capacity. Given the uncertainties of the global oil market, and Nigeria's record of domestic mismanagement, the economy is not likely to be able to absorb subsidies on mechanisation or large-scale farming generally in the short and medium terms. In the Ekiti-Akoko area, as elsewhere in Nigeria, mechanisation's prospects in the small farm sector lay in the long term.

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<sup>196</sup> Binswanger, *Mechanisation*, p. 185.

<sup>197</sup> On Nigeria's experience, see A. O. Olukoshi (ed.), *Crisis and Adjustment in the Nigerian Economy* (Lagos: JAD, 1991).

<sup>198</sup> Cf. John Toye, *Dilemmas in Development* (Oxford, 2nd ed. 1993).

## Chapter 9

### Conclusion

This thesis has examined state policies and programmes since the 1940s to expand capital-intensive agriculture and market-based socio-economic relations in rural Western Nigeria. The analysis emphasised how shifting conjunctures of local history and changing rural perceptions, regional and national policies and politics, as well as international economic forces have affected agriculture and rural society in Ondo State in general and Ekiti-Akoko ADP's operations in particular. What remains is to put Western Nigeria's experience in a wider context and to discuss its implications for agrarian policy and analysis in Africa and the developing world generally. This concluding chapter undertakes the task alongside a summary of the study's main findings.

The unifying theme of the analysis has been that in Nigeria, as elsewhere, the state's economic role has evolved in a creeping, incremental manner. As chapter 1 showed, four major functional-analytical categories have been emphasised in the literature on the Nigerian state. These are benign *spectator* or ineffectual *ring-holder* between opposing commercial interests at the turn of the 19th century; *manager* between the 1920s and the 1940s; *entrepreneur* with a finger in every major economic pie in the 1950s and early 1960s; and, since the mid-1960s, 'the chief appropriator of agricultural surplus'<sup>1</sup> that initially alienated the very producers of the surplus that fed it until the advent of oil incomes in the 1970s, and ultimately became a self-sustaining *obstacle* to 'disciplined national growth'<sup>2</sup> in and outside agriculture. The main analytical lesson in this is two-fold. The first is that *étatisme* dates back to early colonialism and had been well established by the 1950s, when nationalist control of policy-making became significant. The second follows closely: the simple, bi-polar conception of economic development as state interventionism *or* the lack of it, so prevalent in the anti-state literature of the 1980s,

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<sup>1</sup> Sara Berry, 'Oil and the Disappearing Peasantry: Accumulation, Differentiation, and Underdevelopment in Nigeria', in Michael Watts (ed.), *State, Oil, and Agriculture in Nigeria* (Berkeley, 1987), p. 206.

<sup>2</sup> Michael Watts and Thomas Bassett, 'Crises and Change in African Agriculture: A Comparative Study of the Ivory Coast and Nigeria', *ASR*, 28, 4 (1985), p. 4.

is unrealistic and mistaken.<sup>3</sup>

Academic perceptions however constituted only a small part of the story. State presence in rural Western Nigeria has intensified since the 1950s, not least because the Fabian inclination of the region's first post-colonial government has translated to widely shared preferences for interventionist regimes. The empirical account of small-farmer responses to EAADP and ODSADEP's programmes in the 1980s also suggested that capitalist-inclined production has been expanding, slowly and haphazardly but surely, in the food sub-sector. However, overall results have fallen far short of stated targets and may have been inversely related to public expenditure on agriculture. Western Nigeria's experience has been consistent with the poor development record of the nation-state in sub-Saharan Africa. Indeed, the view of the nation-state as the presumed remedy that induced even more social decay, the medicine that killed the patient, has acquired credibility in and outside African studies.<sup>4</sup>

Three broad explanations of the mixed outcomes from Western Nigeria's post-colonial development experience have been supported directly and indirectly by this study. The first is that relations *within* Nigeria's state system as well as *between* it and respective social groups have been, and remain, afflicted by deep historical, structural and moral problems. These problems are themselves attributable partly to colonialism and partly to the negative effects on domestic processes of international economic and political

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<sup>3</sup> A view best exemplified, perhaps, by Robert Bates, *Markets and States in Tropical Africa* (Berkeley, 1981). The 1980s literature is reviewed in Richard C. Cook, 'Farmers and the State', in Douglas Rimmer (ed.), *Rural Transformation in Tropical Africa* (1988), pp. 116-139. An early critique of the state's economic role in West Africa and example of 'bi-polarity' is Peter Bauer, *West African Trade* (Cambridge, 1954). On state-market relations, see Mrinal Data-Chaudhuri, 'Market Failure and Government Failure', *JEP*, 4, 3 (1990), pp. 25-39; and contributions in Dieter Helm (ed.), *The Economic Borders of the State* (Oxford, 1989); and in Louis Putterman and Dietrich Rueschemeyer (eds.), *State and Market in Development* (Boulder, 1992).

<sup>4</sup> Theo Mars, 'State and Agriculture in Africa: A Case of Means and Ends', *IDS Bulletin*, 17, 1 (1986), pp. 16-21; Robert Shenton, *The Development of Capitalism in Northern Nigeria* (1986), chp. 7; Basil Davidson, *The Black Man's Burden* (1992); Jean-François Bayart, *The State in Africa* (1993); Peter Evans, 'The State as Problem and Solution: Predation, Embedded Autonomy, and Structural Change', in Stephen Haggard and Robert R. Kaufman (eds.), *The Politics of Economic Adjustment* (Princeton, 1992), pp. 139-181; Odin Knushen *et. al.*, 'Redefining the Role of Government in Agriculture for the 1990s', *World Bank Discussion Paper* N° 105 (Washington, 1990). For a slightly different view, see John Sender and Sheila Smith, *The Development of African Capitalism* (1986), chp. 4.

influences.<sup>5</sup> But they are, above all, the cumulative result of the persistent failure of state efforts to mediate value and goal conflicts in economic relations between local and foreign interests, and at the domestic level between urban and rural elites on the one hand, and rural producers on the other.<sup>6</sup>

Second, and following from the above, state agrarian initiatives have been founded upon unrealistic assumptions about, or utter contempt for, the socio-technical circumstances of small, cash-poor farmers. This applies as much to the farm settlement schemes of the 1960s as to the IRD programmes of the 1980s. Finally, and not surprisingly, state policies and programmes on agriculture and rural development have often met with considerable scepticism, and in some cases outright cynicism by small-farmers, their intended beneficiaries. Once again, the above attributes are shared by many African countries.<sup>7</sup> But the co-existence in Nigeria of substantial, untapped agricultural potential and recurrent food shortages, localised since the 1930s and nation-wide since the 1970s; and limited agrarian successes in arguably less-endowed countries, such as Côte d'Ivoire and Zimbabwe,<sup>8</sup> point to a uniquely deep structural malaise in post-colonial Nigeria's urban-rural relations.

However, rural scepticism need not be a completely negative and 'unchanging' social force pitting supposedly pre-capitalist peasants against capitalist-inclined policies.<sup>9</sup> This study has provided support for a slightly different, historical definition of rural scepticism as structure and as process. In its structural form, scepticism has been the peasant's

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<sup>5</sup> Cf. James Scarritt and Shaheen Mozaffar, 'Change and Continuity in the British Colonial State in Africa: Integrating Theoretical Perspectives', in Edward Greenberg and Thomas Mayer (eds.), *Changes in the State* (1990), pp. 149-166.

<sup>6</sup> Cf. Dickson Eyoh, 'Structures of Intermediation and Change in African Agriculture: A Nigerian Case Study', *ASR*, 35, 1 (1992), pp. 17-39.

<sup>7</sup> See, e.g., Peter Ekeh, 'Colonialism and the Two Publics in Africa: A Theoretical Statement', *CSSH*, 17, 1 (1975), pp. 97-115; and Robert Jackson and Carl Rosberg, 'Why African States Persist: the Empirical and the Juridical in Statehood', *WP*, 35, 1 (1982), pp. 1-24.

<sup>8</sup> Jennifer Widner, 'The Origins of Agricultural Policy in Ivory Coast 1960-86', *JDS*, 29, 4 (1993), pp. 25-59; Robert Bates, *Beyond the Miracle of the Market* (Cambridge, 1989); Carl Eicher, 'Zimbabwe's Maize-Based Green Revolution: Preconditions for Replication', *WD*, 23, 5 (1995), pp. 805-818.

<sup>9</sup> Goran Hyden, *Beyond Ujamaa in Tanzania* (1980).

rational response to poor articulation, or in some cases outright mis-specification, of state policies in post-colonial Nigeria. As a process, scepticism can be likened to a tactical 'holding operation' by small farmers seeking sufficient time to accumulate experiential evidence on the costs and benefits of adopting new farming implements and methods. In the structural sense, small-farmer scepticism may increase or decrease according to the extent and depth of recursive linkages between agrarian policies and the rural farming population. In the process sense, farmers may adopt recommended practices, in part or as a whole, irrespective of whether the new tools and techniques originally fitted rural socio-technical circumstances. This could result from socio-economic and attitudinal changes at the personal level, from expanded commercial opportunities, or from shifts in the long-term in land-labour and/or labour-capital ratios. Whichever it is, farm-level responses to state initiatives have reflected changes in the history and structure of economic opportunities and exemplified the possibilities for capitalist production in small-scale agriculture. As Bhaduri has remarked in a different context,

Developments in agrarian social history are shaped through a continuous process of interaction between accumulation and the relations among the agrarian classes. In this interactive process, neither the nature of accumulation nor the class relations remain immutable; rather, the very process of agrarian change from a historical point of view consists of interrelated changes in both these aspects in a simultaneous manner over time.<sup>10</sup>

Above all, rural responses have often pointed up the strengths and weaknesses of state policies and strategies and, to this extent, constitute a largely untapped source of performance-improving ideas.

Small-farmer scepticism in post-colonial Nigeria has been deeper and more pervasive in food than in export-crop production. One reason for this is that food farming has been the near-exclusive preserve of smallholders since earliest times. Colonial authorities also stayed well away from food production, except for forays into green manuring and mixed farming in the 1920s and 1930s. This largely hands-off approach continued until the 1970s, with public policy concerned primarily with export agriculture because of its

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<sup>10</sup> Amit Bhaduri, *The Economic Structure of Backward Agriculture* (1983), p. 127; cf. pp. 127-128; and pp. 138-139.

direct bearing on international commerce and state revenue. The result has been two-fold. First, small-scale food production has been, and remains, less intensely integrated into the formal economy at regional and national levels, and even less so to external markets, than export crop production. Second, food growers have had greater room for manoeuvre in the policy arena than export-crop growers. The food-export crop balance, and the extent of peasant autonomy, has been shaped in each case by local history and by the timing and circumstances of incorporation into wider commercial relations.

In these terms, 'late development' in present-day Ondo State has resulted from a number of historical and structural factors (chapter 2). First, north-eastern Yoruba communities, now divided between Ondo State, where they presently constitute about half of the population, and Kogi State, lost much of their development potential between the 14th and 19th centuries, when they served as slave fields and theatres of war to military suzerains from Benin, Ibadan, Ilorin, and Bida.<sup>11</sup> Second, formal colonialism merely superimposed a new political order on the existing structure of urban-rural relations. This added yet another layer to the externally-oriented commercial economy without affording present-day Ondo State's agrarian communities any greater control over the terms of trade for their produce. Colonialism also formalized the policy framework in which Nigeria's rural producers have borne a disproportionately high share of development costs, directly in the form of the higher incidence of taxation and indirectly in the form of lost opportunities occasioned by the transfer of real wealth from rural to urban areas and by the urban orientation of development spending.

In short, state-induced urban bias in Western Nigeria did *not* begin with the advent of statutory export monopolies in 1939, as is generally accepted in the development literature. On the contrary, state-induced urban bias had flourished in pre-colonial Yoruba society, one of the many structural effects of the collapse of old Oyo empire.<sup>12</sup> State formations in 19th century Yoruba society certainly lacked the sophistication and

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<sup>11</sup> S. A. Akintoye, 'The North-Eastern Yoruba Districts and the Benin Kingdom', *JHSN*, IV, 4 (1969), pp. 539-553.

<sup>12</sup> Toyin Falola, *The Political Economy of a Pre-Colonial State* (Ile-Ife, 1984).

complexity of their colonial or even post-colonial counterparts. But they were founded on an intricate administrative system which transferred productive capital, including human beings, from rural areas to urban imperial and commercial centres as tribute, mandatory military or social provisioning, or part of the unequal trade between Lagos and the Yoruba hinterland.<sup>13</sup> The general inference from chapter 2, therefore, is that changes in the *forms* of state rule and role over the years have not transformed the *substance* of urban-rural relations in Western Nigeria. The main articles of trade have varied, from slaves and oil palm up to the 1890s to cocoa since the 1920s, but rural Ondo State has remained a net exporter of primary and intermediate goods to urban Western Nigeria and a net importer of foodstuff since the 1930s.<sup>14</sup>

In 1954-77, for example, cocoa farmers lost between one-tenth and two-thirds of their annual potential incomes to a variety of government taxes.<sup>15</sup> These ratios were the highest in those very days when export produce constituted Nigeria's single largest source of foreign exchange. Yet, when world market prices were declining in the 1960s, government not only reduced producer prices but also sought to increase per capita tax! The result was the *Àgbékòyà* riots, of which Professor Adedeji remarked as follows:

Why is it that the farmers' unrest came into the open...when...it did appear that their economic situation in terms of income available to them was being improved? I think two answers come to mind...The first is the way government spends the resources made available by the marketing boards...The farmers are not seeing direct benefit from the way the government spends the resources which it takes away from them...The second issue...is the failure of government, after two decades of dependence on the marketing board for a considerable proportion of their resources, to call on the growing urban population to bear an increasing proportion of the burden.<sup>16</sup>

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<sup>13</sup> Bolanle Awe, 'The Ajele System- A Study of Ibadan Imperialism in the Nineteenth Century', *JHSN*, III, 1 (1964), pp. 47-60; S. A. Akintoye, 'The Economic Foundations of Ibadan's Power in the Nineteenth Century', in I. A. Akinjogbin and S. O. Osoba (eds.), *Topics in Nigerian Economic and Social History* (Ile-Ife, 1980), pp. 55-65.

<sup>14</sup> *Annual Report on the Southern Provinces of Nigeria for the Year 1927* (Lagos, 1928), p. 52; C. Rowling, *Report on Land Tenure in Ondo Province* (Lagos, 1952), p. 72; Reuben Udo, 'Food-Deficit Areas of Nigeria', *GR*, 61, 3 (1971), pp. 415-430; S. A. Olusuyi, 'Some Farmers' Problems that must be attended to before Farmers can play their rightful Role in Economic Viability of Ondo State', in G. T. Fatunla (ed.), *Economic Viability of Ondo State* (Akure, 1984), p. 38.

<sup>15</sup> Bates, *Markets*, pp. 138-139.

<sup>16</sup> A. Adedeji, 'Comments on the Paper by Professor Olakanpo and Dr. Teriba: 3', in H. M. A. Onitiri



The net burden of cocoa-induced tax must have been higher in Ondo State than in say, Ibadan or Ilaro, partly because Ondo State's share of total output increased coincidentally with rising taxes, and partly because the state's share of development expenditure was not commensurate with its financial contribution. Still, the *Àgbékòyà* riots had little explicit support in Ondo State because of false conceptions of cocoa-induced prosperity and government patronage. Unlike in Ibadan and Ijebu areas, or western Yoruba country generally, agricultural enterprise has been predominant and commercial investment opportunities few and far between in Ondo State. As such, Ondo State's cocoa growers had no reason in the 1970s to share their Ijebu and Ibadan counterparts' opposition to state 'interference with [farmers'] efforts to accumulate and exclusion from state-controlled resources and opportunities outside the agricultural economy'.<sup>17</sup> Even now, farmers' responses to state intervention are likely to differ more in degree than in kind. As noted in chapter 1, popular perceptions of big government have not changed significantly in Ondo State since the 1970s. Moreover, Nigeria's market-oriented structural adjustment programme of the 1980s has occasioned increases in producer prices (denominated in local currency) and probably encouraged new investment in cocoa farms.

However, present-day Ondo State has had its own share of Yoruba trading networks, even if they have been less remarked in the historical literature.<sup>18</sup> But, as in cocoa-growing, Ondo State's trading networks probably emerged after the field had been covered, as it were, by Ibadan, Ijebu and possibly Ilesa traders.<sup>19</sup> Lacking the organisational reach and possibly financial clout of their older, better established counterparts in Western Yoruba country, Ondo State's trading networks most probably suffered more disruption from the expansion of the colonial state into Yoruba country since the 1890s, and have been less able to benefit from the commercial fall-outs from increased public sector spending after 1945. For example, in Ilaje and Ikale, two

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and Dupe Olatunbosun (eds.), *The Marketing Board System* (Ibadan, 1974), p. 208.

<sup>17</sup> Berry, 'Disappearing Peasantry', p. 206.

<sup>18</sup> See, e.g., S. A. Akintoye, 'The Ondo Road Eastwards of Lagos c. 1870-95', *JAH*, X, 4 (1969), pp. 581-598; and C. O. Akomolafe, 'The Establishment of British Administration and its impact on Owo-Akoko Relations 1919-1935', *JHSN*, X, 1 (1979), pp. 65-85.

<sup>19</sup> See, e.g., J. D. Y. Peel, *Ijeshas and Nigerians* (Cambridge, 1983).

communities on the riverine fringes of present-day Ondo State, strong communal and commercial traditions, including nascent ship-building and fishing industries, dating back to river-borne traffic between Lagos and the hinterland in the 19th century had collapsed by the 1970s.<sup>20</sup> One reason for the decline was the communities could not participate in export-crop agriculture for natural reasons, but the post-colonial government also seemed to have perceived the communities as a latent threat to its urban-inclined, export oriented development strategy, and was to this extent uninterested in more focused remedies. Ilaje and Ikale have been excluded, therefore, because they were located outside the geographical 'catchment areas' of cocoa-based development spending on infrastructure, especially roads, after 1950.<sup>21</sup> Many more communities in rural Ondo State may have had similar experiences, but there is as yet no sufficient evidence to that effect.

What is not in doubt is the resilience of Nigeria's urban-inclined development strategy. This is attested to by Ondo State's status as a principal cocoa-producing area since the 1950s, its dependence on yams and grains imported from neighbouring areas since the 1920s, and the co-existence of local food shortages with a substantial trade in yam and cassava with urban markets (chapter 2). Even in the 1980s, while Nigeria was implementing a standard structural adjustment programme, ODSG established a Farmers' Congress to collect a 'development levy' from cocoa farmers. Proceeds from the levy were then used to fund, among other purposes, the construction of a five-star hotel and secretariat complex in Akure, the state capital.<sup>22</sup> Congress' operations thus constituted a blatant revival in the 1980s of the rent-based urban development strategies of the 1940s and 1950s. Jamal and Weeks' argument that urban bias no longer existed in sub-Saharan Africa by the 1980s is therefore false and stands rejected.<sup>23</sup>

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<sup>20</sup> Stanley Barrett, *The Rise and Fall of an African Utopia* (Waterloo, 1977).

<sup>21</sup> Paul Richards, 'Landscape of Dissent- Ikale and Ilaje Country 1870-1950', in J. F. A. Ajayi and J. D. Y. Peel (eds.), *People and Empires in African History* (1992), pp. 161-183.

<sup>22</sup> Olufemi A. Akinola, 'The Politics of Farmer Organisation in Ondo State, Southwestern Nigeria in the 1980s', paper presented at the International Conference on Cocoa and Economic Development in the 19th and 20th Centuries, London, September 1993.

<sup>23</sup> Vali Jamal and John Weeks, *Africa Misunderstood or Whatever Happened to the Rural-Urban Gap?*

In Ondo State, as elsewhere in and outside Nigeria, the key to small-farmer manoeuvring has been the control of access to productive resources, especially land. Illife's statement, that 'land [has been] too easily available to permit the intensive exploitation of free cultivators'<sup>24</sup> applies to rural Ondo State today as it did much of 19th century Nigeria. To be sure, social differentiation has increased along with economic opportunities outside agriculture in all parts of Nigeria. Their effect in predominantly agrarian Ondo State has been to discourage peasant reproduction and scuttle agricultural intensification. Still, the analysis pointed to what Jane Guyer has called 'small change'<sup>25</sup> in rural attitudes to agricultural development.

Such change could be discerned on at least two levels. First, arable land has been shifted from yam to cassava cultivation, the latter often of the improved variety. This confirms the view that cassava is more resource-efficient generally, and that farmers in land-abundant economies have often increased returns to labour by varying their enterprise combinations and promoted ecological regeneration by growing crops with lower fertility-depleting attributes.<sup>26</sup> In the present case, cassava's labour-saving capacity has been far more important than its contribution to land fertility. Secondly, there were odd examples of individual efforts to cross the threshold between family and technology-based commercial agriculture. Precise statements on the social background of the individuals concerned and the sources as well as direction of their efforts require more extensive fieldwork than that undertaken for this study. Chapters 5, 6, and 7 suggest, nonetheless, that traditional land tenure systems are by themselves less inhibitive of agricultural development.<sup>27</sup>

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(1993).

<sup>24</sup> John Illife, *The Emergence of African Capitalism* (1983), p. 12.

<sup>25</sup> Jane Guyer, 'Small Change: Individual Farmwork and Collective Life in a Western Nigerian Savanna Town, 1969-88', *Africa*, 62, 4 (1992), pp. 465-489.

<sup>26</sup> Paul Richards, *Indigenous Agricultural Revolution* (1985), p. 109. Cf. William Jones, 'Manioc: An Example of Innovation in African Economies', *EDCC*, V, 2 (1957), pp. 97-117.

<sup>27</sup> See Gershon Feder and Raymond Noronha, 'Land Rights Systems and Agricultural Development in Sub-Saharan Africa', *WBRO*, 2, 2 (1987), pp. 143-169; and John W. Bruce, 'Do Indigenous Tenure Systems Constrain Agricultural Development?', in Thomas Bassett and Donald Crummey (eds.), *Land in African Agrarian Systems* (Madison, 1993), pp. 35-56.

A more substantive constraint has been small-farmers' attitudes to the socio-technical imperatives of capitalist agriculture. Analysis of project data in chapter 7 suggested clearly that HYV seeds could increase land productivity with or without fertilizer while marginal yields from HYV seeds could be as much as 40% higher on fertilized than on non-fertilized plots. The question remained, however, whether a 40% yield margin is large enough to offset the social and financial risks associated with small-farmer adoption of fertilizer; and whether the institutional environment, including market distortions occasioned by government policies, in fact encouraged small food-farmers to cross the threshold from near-subsistence to commercial production. Answers to these questions are negative in the present case, not least because policy instability, the structure of access to factor markets, and the impact of both of food-crop prices stack the odds against smallholders. In the case of livestock production, project technology was well beyond the absorbing capacity of the local economy.

Above all, labour scarcity has remained a major constraint to the growth of agricultural output even in the small-farm sector (chapters 6 and 8). The reasons are not hard to seek. In rural Ondo State, as in other land-surplus economies, rural labour markets have been grossly underdeveloped or non-existent, in spite or because of pseudo-proletarianization occasioned by migration to urban centres. Labour has often been difficult or near-impossible to obtain at peak-season because available labour power, including that of occasional part-time farm workers, is almost always dedicated to growing food for individual and family consumption, and, increasingly, for sale. One way of overcoming peak-season labour supply difficulties has been to retain privileged access to labour through sharecropping or patronage of migrant workers. However, both options often involve social support and infrastructure costs beyond the reach of typical small farmers. Higher wage levels for farm labour could also mean that peak-season weeding or harvesting operations are delayed or undertaken haphazardly, occasioning losses to farmers who cannot afford to pay the going rates or offer non-wage incentives to labour and possibly discouraging those on the fringes of new factor combinations. Moreover, wider African experience has suggested that sharecropping and migrant labour have created avenues for avoiding capitalist relations and intensifying pre-capitalist forms of

production.<sup>28</sup>

State policies on food-crop production in post-colonial Nigeria have consistently emphasised large-scale farming, and by implication at least, property rights in farmland. Even the 'Operation Feed the Nation' campaign, embarked upon initially to encourage garden-type food farms, became engrossed in large state-owned farms worked by vacationing students.<sup>29</sup> State officials have also sought to convince rural dwellers that potential gains from higher capital-labour ratios *could* be realised in the small-farm sector. This is in spite of severe institutional weaknesses, including poor access to market information and price fluctuations from bumper harvests; competition from imported foodstuff; poor incentives structure, and even poorer administration or outright diversion of input subsidies. Market collapse has resulted from low crop specialisation or from bumper harvests occasioned, for instance, by the intermittent state campaigns to boost arable-crop production. The emphasis on property rights, or the speed and intensity of its enforcement, has proceeded further in northern Nigeria than in the south, reflecting different traditions of access to farmland, and by implication, varying degrees of divergence and convergence between policy-induced changes since the 19th century and extant practice. Policy emphasis on northern Nigeria's centralised control of access to farmland has encouraged a slightly determinist analysis of state-peasant relations since the 1970s, as in *State, Oil and Agriculture*, edited by Michael Watts.<sup>30</sup> However, such analytical schemes have excluded a wide variety of peasant manoeuvres in land-surplus rural Western Nigeria, such as those described in this study, and by implication, overstated the potential for peasant 'capture' by and through oil-based spending on ADPs.<sup>31</sup>

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<sup>28</sup> Illife, *Emergence*, pp. 34-35.

<sup>29</sup> See Abiodun O. Falusi, 'Agricultural Development: Operation Feed the Nation' in Oyeleye Oyediran (ed.), *Survey of Nigerian Affairs 1976-77* (Lagos, 1981), pp. 55-68. On a parallel experience, see Jane Girdner *et. al.*, 'Ghana's Agricultural Food Policy: Operation Feed Yourself', *FP*, 5, 1 (1980), pp. 14-25.

<sup>30</sup> The clear exceptions are the chapters by Sara Berry and Robert Shenton.

<sup>31</sup> Cf. Sara Berry, 'Inconclusive Encounters: Farmers and States in the Era of Planned Development', in her *No Condition is Permanent* (Madison, 1993), pp. 43ff.

Political motives, bureaucratic in-fighting, and administrative confusion have been part of policy-making on Nigerian agriculture since early colonialism (chapter 2). In fact, *apolitical* public policy-making is a contradiction in terms, more so in Africa's contradiction-ridden colonial regimes.<sup>32</sup> A peasant-led agrarian strategy was preferred in early colonial Nigeria because it promised (and eventually delivered) revenue to the colonial state while precluding social unrest and the loss of the people's 'goodwill' through 'indirect rule'.<sup>33</sup> Government's attempt in the 1930s to close the food gap in export-crop producing areas also collapsed because of inter-departmental jurisdictional disputes and the outbreak of Second World War hostilities (chapter 2). In Kenya in the 1950s, where a settler strategy had occasioned widespread anti-colonial unrest, a social buffer (i.e. 'progressive farmers') was created between white settlers and landless African peasants through the million-acre scheme.<sup>34</sup>

By the 1950s in Nigeria, virtually all middle class opposition to the colonial order had been co-opted or absorbed 'into the leadership or policy-determining structure of the colonial system as a means of averting threats to its stability or existence'.<sup>35</sup> In short, contrary to what has been implied in the 1970s and 1980s by *ex-post facto* analysis, there was hardly a credible support constituency for alternative policy options in the 1950s. It is therefore ahistorical to suggest, as Bates has done, that agrarian policies which delivered political pay-offs at the expense of increased efficiency and output date only from late colonialism or the post-colonial era.<sup>36</sup> Bates' underlying assumption, that

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<sup>32</sup> Fred Cooper, 'Africa and the World Economy' [with new 'Postscript'], in Cooper *et. al.*, *Confronting Historical Paradigms* (Madison, 1993), pp. 122-131. Earlier version published in *ASR*, 24, 2/3 (1981), pp. 1-86.

<sup>33</sup> Memo dated 1 June 1936 by L. G. Shenton, CSO26/31071, NAI., p. 43. For wider analysis, see Sara Berry, 'Hegemony on a Shoestring: Indirect Rule and Access to Agricultural Land', *Africa*, 62, 3 (1992), pp. 327-355; and Anne Phillips, *The Enigma of Colonialism* (1989), chp. 6.

<sup>34</sup> Christopher Leo, 'The Failure of the 'Progressive Farmer' in Kenya's Million-Acre Settlement Scheme', *JMAS*, 16, 4 (1978), pp. 619-638; Eric Clayton, *Agriculture, Poverty and Freedom in Developing Countries* (1983), p. 199f.

<sup>35</sup> G. Wasserman, 'The Politics of Consensual Decolonisation', *The African Review*, V, 1 (1975), p. 5; cf. Olajide Aluko, 'Politics of Decolonisation in British West Africa, 1945-1960', in J. F. Ade Ajayi and Michael Crowder (eds.), *History of West Africa*, Vol. I (3rd. ed., 1985), pp. 693-735.

<sup>36</sup> Bates, *Markets*; cf. Manfred Bienenfeld, 'Analyzing the Politics of African State Policy: Some

Africa's post-colonial states have *always* had the capacity to institute and manage far-reaching social engineering is equally too sanguine, a 1980s version of the high expectations from the post-colonial state in the 1950s and 1960s.<sup>37</sup> As Ghana's economic record in the 1950s and 1960s has shown clearly, Africa's most feasible option in the immediate post-independence period was a gradualist strategy *within* the colonial framework.<sup>38</sup>

If Nigeria's agrarian strategies in the 1950s and 1960s foundered on price collapse in the export-crop market, those of the 1970s and 1980s appear to have sought to take politics out of agricultural change. Regional control of agricultural policy, and the variety of approaches that resulted therefrom, had ended with the advent of military rule in Nigeria in 1966.<sup>39</sup> But the new policy framework in which state governments were compliant partners or trait-takers did not emerge until the mid-1970s, when oil-based incomes gave the federal government unprecedented economic clout and nearly absolute control of policy-making.<sup>40</sup> More fundamental pressures for structural uniformity have been exerted on Nigeria's small-farm sector, however, by and through ADPs, which have been probably the World Bank's ultimate exemplars of blueprint development.

The present study has made two distinct contributions to the analysis of ADPs. First, further empirical support has been provided for the general view that Nigeria's ADPs have, in effect, displaced or at least undermined small-farmer production by channelling subsidised inputs, credit, and other forms of assistance to middle peasants, businessmen-

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thoughts on Robert Bates' Work', *IDS Bulletin*, 17, 1 (1986), pp. 5-11.

<sup>37</sup> D. K. Fieldhouse, *Black Africa 1945-80* (1986), pp. 234ff; Piotr Dutkiewicz and Gavin Williams, 'All the King's Horses and All the King's Men couldn't put Humpty Dumpty Together Again', *IDS Bulletin*, 18, 3 (1987), pp. 39-44.

<sup>38</sup> See Elliot Berg, 'Structural Transformation versus Gradualism: Recent Economic Development in Ghana and the Ivory Coast', in Philip Foster and Aristide Zolberg (eds.), *Ghana and the Ivory Coast* (Chicago, 1971), pp. 187-230. For more recent views, see Jonathan H. Frimpong-Ansah, *The Vampire State in Africa* (Trenton, 1992); and Douglas Rimmer, *Staying Poor* (Oxford, 1992).

<sup>39</sup> Cf. Allison A. Ayida, 'Basic Issues in Financing Nigerian Agriculture in the Seventies', in his *Reflections on Nigerian Development* (Lagos, 1987), pp. 108-118.

<sup>40</sup> S. E. Oyovbaire, *Federalism in Nigeria* (1985), pp. 231-232.

farmers, and civil servants with access to politically-strategic decision points.<sup>41</sup> Put differently, ADPs have reinforced existing policy biases for low-risk, directly unproductive activities through a blatant diversion of productive resources from cash-poor rural producers who really *need* official assistance to relatively well-off people with greater interest in commerce and windfall profits than agricultural production. This partly explains why Nigeria's food situation has improved only marginally since the 1970s, despite massive oil-based expenditure on input subsidies (chapter 7).<sup>42</sup>

In Ekiti-Akoko's case, such transfers are likely to have taken place less directly between Ondo State's peasants and non-peasants than between local functionaries and middlemen and traders with access to northern Nigeria's lucrative input markets. This situation has certainly reflected low input demand (chapter 7) and the slow pace of change in traditional farming methods as well as attitudes to official extension in Ondo State (chapters 5 and 6). But it also betrayed EAADP's dismal record in social institution-building (chapter 4). Unlike its northern counterparts, EAADP did not engage in explicit social engineering. For example, Lafia ADP had established committees at village and district levels to recommend individuals for credit and provide informal links between the project and its farming public.<sup>43</sup> These committees comprised middle-ranking peasants rather than typical small farmers, and to this extent, merely articulated project interests; but Lafia ADP had at least attempted to open new lines of communication with its primary public.<sup>44</sup> In contrast, EAADP neither formed community associations nor provided explicit support for existing bodies. Until 1986, cooperative societies were ousted from credit administration by extension staff more used to dealing with 'temporary

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<sup>41</sup> World Bank, *Accelerated Development in Sub-Saharan Africa* (Washington, 1981), p. 53.

<sup>42</sup> Paul Clough and Gavin Williams, 'Decoding Berg: The World Bank in Rural Northern Nigeria', in Watts, *State*, pp. 168-201; Gavin Williams, 'The World Bank in Rural Nigeria, Revisited', *ROAPE*, 43 (1988), pp. 42-67. On fertilizer subsidies, see G. Evbuomwan, 'A Review of the Federal Government Fertilizer Subsidy Scheme in Nigeria', *EFR*, 29, 3 (1991).

<sup>43</sup> Dickson Eyoh, 'Reforming Peasant Production in Africa: Power and Technological Change in Two Nigerian Villages', *DaC*, 23, 2 (1992), pp. 37-66.

<sup>44</sup> *Ibid.*



banding together of farmers for the expediency of securing credit packages'<sup>45</sup> than societies obliged by law to observe standard accounting procedures. This was another instance in which extension officers' proclivities prevailed over expressed project policy.

Secondly, the study has highlighted the far-reaching impact on social responses and project performance of local resource circumstances, including political factors; and the analytical limitations of some generalisations on Nigeria's ADPs, especially those predicated on the north's resource profile, the unifying impact of military rule and the macro-economic climate of the 1970s. Like its antecedents, Ekiti-Akoko ADP was designed under a military administration, while Nigeria's international liquidity rating was at its highest. The one-year delay of its start-up because of 1978's oil-price shock meant, however, that EAADP commenced operations under an elected civilian administration with different political priorities and opposing agricultural development programmes. The seeming lack of political commitment to the ADP concept in Ondo and other states not controlled by the party that formed the federal government in 1981-83, and Nigeria's worsening macro-economic conditions after 1981, meant that ODSG's financial and policy support for Ekiti-Akoko ADP was lacklustre. Poor local funding also blocked the disbursement of World Bank credit under the counterpart rule (chapter 3). In effect, EAADP's intended role as a spearhead of market-based policies in small-scale food farming was scuttled by local factors, the very attributes that project blueprints have often ignored.

Ekiti-Akoko ADP's financial difficulties, and subsequent attempts by the World Bank to assure prompt financial disbursements by state governments suggest three wider inferences. One is that references to *the* state as though it is and has always been a unitary behemoth in real life is apolitical and misleading, especially in federal societies like Nigeria. The state almost always operates as a system of relationships, with considerable possibilities for conflict and cooperation between and within its sub-systems or institutions.<sup>46</sup> Second, IRD projects would probably be more successful, and certainly

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<sup>45</sup> Eyoh, 'Structures', pp. 23-24.

<sup>46</sup> Cf. Robert Bates, *Essays on the Political Economy of Tropical Africa* (1983).

more easily sustainable, if their design and implementation attracted support constituencies cutting across local political and quasi-ideological divisions. Above all, EAADP's fortunes have highlighted the Bank's lack of executive power; its helplessness in the face of chronic political-economic instability in host countries; and the defects of blueprint planning where, as in EAADP's case, plan design and implementation are separated by important cultural and socio-economic variables.<sup>47</sup>

The last point deserves further comment because of its implications for the future of IRD programmes in Nigeria. As chapters 4 to 8 showed, the seeds of EAADP's operational failures were watered by its blueprint. To start with, EAADP had been promoted as an opportunity for local farmers to obtain *their* share of increasing global and local expenditure on food-crop production. This erroneous view encouraged unrealistically high expectations by the farming public and inclined small farmers against the strictly commercial orientation of EAADP's programmes. The training and visit system is also likely to have been adopted more as part of the project package than as a result of a dispassionate review of reasons why experiments with earlier extension organisation frameworks had failed to meet expectations.<sup>48</sup> Training and visit has in any case been criticised as one of those precision formulae which have proved difficult to replicate or sustain because their external orientation has imposed excessive demands on available resources.<sup>49</sup>

Similarly, the decision to make EAADP autonomous of the state's administrative machinery perhaps created more problems than it solved. Local senior civil servants, some of whom had expected to hold directing project positions, regarded EAADP's expatriate managers with contempt; in turn, the latter undermined the understudy scheme and effectively denied access to the Staff Appraisal Report and to operational decision-making by local personnel! Double standards in the setting of staff conditions in Nigeria's

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<sup>47</sup> Albert Hirschman, *Development Projects Observed* (Washington, 1995), chp. 4; Emery Roe, 'Development Narratives, Or Making the Best of Blueprint Development', *WD*, 19, 4 (1991), pp. 287-300.

<sup>48</sup> Cf. IBRD, *Agricultural Research and Extension* (Washington, 1985), p. 105

<sup>49</sup> John Mullen, 'Training and Visit System in Somalia: Contradictions and Anomalies', *JID*, 1, 1 (1989), pp. 145-167.

IRD projects also meant that the most senior Nigerian in EAADP's team earned only 37% of expatriates' lowest basic pay. Apart from its implications on staff morale, this experience supports the general view that IRD projects have often promoted the supply interests of aid donors or creditor countries better than they have fostered self-fulfilment in host countries.<sup>50</sup>

Staff secondments from existing agencies, intended to reduce recurrent personnel costs to EAADP, probably cost the project more in staff time lost to competing loyalties (chapter 3). Conflicting conceptions of farmers' groups between seconded staff from the Ministry of Agriculture and the Cooperative Societies Division hampered the administration of project credit. Relations with the public were not helped either by the prevailing conception of the extension agent 'as the enlightened leader of a backward people'.<sup>51</sup> An experiment by DARUDEC to employ as extension agents people with hands-on experience in farming, but with minimum formal education, was also terminated in 1984 and blamed for the low quality of village-level personnel and for some of the failures in project extension. Its collapse raises deeper questions, however, about whether Ondo State's typically illiterate food farmers could have internalised extension skills and techniques on which their slightly more educated contemporaries could not provide effective instruction and advice. My estimates of the extension staff-farmer ratio in the 1980s suggested, anyway, that the potential for direct contact between the average small-scale farmer and extension agents was lower after project take-off than before the immediate pre-project period.

Finally, seconded staff developed incompatible loyalties and spent precious time trying to maintain contacts with their departments of origin. The ensuing feeling of insecurity of tenure energized a 'back to ministry lobby' which resisted EAADP's autonomous status, probably leaving the project with greater losses in staff and management time than it saved on the salaries and wages of seconded staff. All this is consistent with project

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<sup>50</sup> Hans Gsänger, *The Future of Rural Development* (1993), p. 7; G. Honadle and Jay K. Rosengard, 'Putting 'Projectized' Development in Perspective', *PAAD*, 3, 4 (1983), p. 302.

<sup>51</sup> O. T. Faulkner and J. R. Mackie, *West African Agriculture* (Cambridge, 1933), p. 78.

experiences elsewhere,<sup>52</sup> and Nigeria has since the late 1980s sought to return projects to departmental line structures. In Ondo State, the extension department has been moved over from the Ministry of Agriculture to ODSADEP, making the latter responsible for the state's extension programme in its entirety. Staff secondments to the Oyo State ADP have also been stopped, those who moved over having transferred their services to the ADP. These moves may have strengthened project control over staff, but their impact on the diffusion of new farming techniques remains to be seen.

A number of speculative points can be made about the future of agriculture and rural development in Nigeria. First, it is difficult not to be pessimistic, but it is not helpful either to dismiss the future on the strength of historical and sociological evidence. According to an acute observer of the landscape,

[t]he future of Africa does not lie with small-scale capitalism to benefit the peasantry, but with medium- if not large-scale capitalism, promoted partly by the property-owning bourgeoisie, partly by the state, and partly by international capital. If the aim of this process and sometimes its general result are to increase production, another result- as since the eighteenth century has always been the case, at least in the rural areas, in all countries in the course of industrialization, has been to make a proletariat of the country dwellers and to encourage their flight to the cities.<sup>53</sup>

Coquery-Vidrovitch's view is instructive and nearly self-evident. This study has shown how the benefits of government programmes, including subsidies, have been denied to small-scale farmers, either because of design problems, or because powerful urban and rural interests have diverted or hijacked such benefits. In 1963, the government of Western Region had expressed concern about the massive movement to the cities by rural youth, or the lack of peasant reproduction in rural Western Nigeria. This trend has been confirmed by Sara Berry's *Fathers Work for their Sons*.

However, Coquery-Vidrovitch has in effect dismissed the peasantry and/or implied a future *without* them, perhaps unwittingly articulating the polar opposite of Hopkins'

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<sup>52</sup> Albert Hirschman, *Development Projects Observed* (Washington, 2nd ed. 1995), pp. 153-159.

<sup>53</sup> Catherine Coquery-Vidrovitch, *Africa: Endurance and Change South of the Sahara*, trans. David Maisel (Berkeley, 1988), p. 133.

*merrie* Africa or Hyden's economy of affection. Yet, Africa's continuing agricultural crisis has been caused partly by the mistaken assumption in previous policies and strategies that the peasantry could somehow be wished away through conscious social engineering or by more blatant support for large-scale capital-intensive farming.<sup>54</sup> As this and several studies of Nigeria's post-colonial experience have shown, this position is neither feasible nor sustainable.<sup>55</sup> Large-scale farming requires heavy investments which neither a majority of farmers nor Nigeria's economy could afford. Besides, the strictly economic benefits of large-scale farming must also be considered alongside its social costs. As Abalu and D'Silva have concluded,

[e]ven if [Nigeria] could afford the heavy investment that would be involved [in large-scale agriculture], the tendency would be to create a landless class by displacing original owners of land and replacing them with fewer but more powerful and more wealthy individuals. In the absence of alternative employment opportunities, the result would be abject poverty in rural areas as well as in urban areas - which would experience heavy migration from the rural areas. The economy would end up, not only with a diminished purchasing power from the consumption sector, but also with a constrained rate of growth of the non-agricultural sector (and hence the economy as a whole).<sup>56</sup>

In any case, neither the capitalist nor the socialist development model has come up with a credible alternative to peasants' primary role as providers of surplus in economic development. The debate on the place of peasants in economic development has been less about whether they could be replaced and more about the net burden and overall effect of their contribution in individual cases.<sup>57</sup> A more feasible, if less clear-cut, option is that future agrarian strategies take greater account of indigenous knowledge, peasants'

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<sup>54</sup> On Nigeria's experience, see Akin L. Mabogunje, 'The X-Factor: Peasants and Nigeria's Development Process' in NES, *Nigeria's Developmental Problems* (Lagos, 1986), pp. 41-57; 'The Demobilization of the Nigerian Peasantry', in R. P. Misra and Nguyen Tri Dung (eds.), *Third World Peasantry* (1986), pp. 230-244. For wider analysis, see Gavin Williams, 'Why is there no Agrarian Capitalism in Nigeria?', *Journal of Historical Sociology*, 1, 4 (1988), pp. 345-398.

<sup>55</sup> K. D. S. Baldwin, *The Niger Agricultural Project* (Oxford, 1957); Dupe Olatunbosun, 'Western Nigeria Farm Settlements: An Appraisal', *JDA*, 5, 3 (1971), pp. 417-428.

<sup>56</sup> G. O. I. Abalu and B. D'Silva, 'Nigeria's Food Situation: Problems and Prospects', *FP*, 5, 1 (1980), p. 56.

<sup>57</sup> See, e.g., Wyn Owen, 'The Double Developmental Squeeze on Agriculture', *AER*, LVI, 1 (1966), pp. 43-70; Robert Brenner, 'The Origins of Capitalist Development: A Critique of neo-Smithian Marxism', *NLR*, 104 (1977), pp. 25-93; R. Holton, *The Transition from Feudalism to Capitalism* (1984); and Richard Grabowski, 'The Agrarian Roots of Economic Expansion', *PS*, 19, 2 (1992), pp. 93-110.

demographic strength and productive potential without turning their back on real advantages offered by technical change.<sup>58</sup> New initiatives must combine sectoral and project-based programmes if they are to strike the difficult balance between small, medium, and large-scale farming.

Secondly, in spite of its dismal record, the state has been and remains the one social mechanism with the *potential* institutional reach and capacity to co-ordinate any programme of economic development in the rural areas.<sup>59</sup> There is much to be said in favour of 'bottom-up' approaches and about the involvement of non-governmental organisations (NGOs) in rural institution-building. Still, the proliferation of NGOs and protestations about 'top-down' approaches in the 1970s and 1980s reflected widespread frustration with centrally-directed change in Africa and elsewhere and the attendant anti-state ferment of that period more than a desire to supplant the state.<sup>60</sup> In practice, as Uphoff has noted, "top-down" efforts are usually required to initiate and even to sustain "bottom-up" capacities."<sup>61</sup> NGOs require a stable macro-economic and political framework, both provided by the state, to achieve their development objectives - whether these be in agricultural extension and rural economic institution-building<sup>62</sup> or in the more directly political civic education and empowerment.<sup>63</sup> The signal lesson of experiences with structural adjustment programmes in the 1980s is that a de-activated state could be as problematic as an over-extended state, at least for purposes of effective

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<sup>58</sup> Gsänger, *Rural Development*; Robert Chambers, 'The State and Rural Development and an Agenda for the 1990s' in C. Colclough and James Manor (eds.), *States or Markets? Neo-liberalism and the Development Policy Debate* (Oxford, 1991), pp. 260-278.

<sup>59</sup> Lloyd G. Reynolds, 'The Spread of Economic Growth to the Third World: 1850-1980', *JEL*, XXI, 3 (1983), pp. 941-980. On Nigeria, see Charles Jarmon, *Nigeria: Reorganisation and Development since the Mid-Twentieth Century* (Leiden, 1988).

<sup>60</sup> John H. Hamer, 'Preconditions and Limits in the Formation of Associations: The Self-Help and Cooperative Movement in Africa', *ASR*, 24, 1 (1981), pp. 113-132; cf. contributions in W. B. Stohr and D. R. Fraser Taylor (eds.), *Development From Above or Below?* (New York, 1981).

<sup>61</sup> Norman Uphoff, 'Assisted Self-Reliance: Working With, Rather Than For the Poor' in John P. Lewis (ed.), *Strengthening the Poor* (New Brunswick, 1988), p. 47.

<sup>62</sup> Cf. Kate Wellard and James G. Copestake (eds.), *Non-Governmental Organisations and the State in Africa* (1993).

<sup>63</sup> Michael Bratton, 'The Politics of Government-NGO Relations in Africa', *WD*, 17, 4 (1989), p. 570.

and efficient macro-economic policy management.<sup>64</sup> What is required in Africa is a *reconstructed* state in which popular empowerment by autonomous groups, including formal NGOs and quangos (quasi-NGOs) as well as less formally structured farmers' associations, goes side by side with a strengthening of state capacities on macro-economic and strategic management.<sup>65</sup>

Gow and Vansant have argued that attempts to promote popular participation in rural development will invariably face formidable resistance from existing bureaucratic structures and from the sheer force of cultural and historical experience.<sup>66</sup> This is especially so in Nigeria and elsewhere in Africa, where state-society relations in general and policy-making processes in particular, have been founded on state activism and authoritarian rule.<sup>67</sup> Wider experiences have shown, however, that development initiatives do work with less comprehensive planning and centralised control, the type associated with Nigeria's ADPs and World Bank projects generally up to the 1980s.<sup>68</sup> A beginning could be made, therefore, by adapting project design and implementation more closely to their host communities and immediate ecological environments, and more

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<sup>64</sup> F. Stewart, 'Are Adjustment Policies in Africa Consistent with Long-run Development Needs?', *DPR*, 9, 4 (1991), pp. 413-436; and Simon Commander (ed.), *Structural Adjustment and Agriculture* (1989). For detailed country analysis, see, e.g., A. O. Olukoshi (ed.), *The Politics of Structural Adjustment in Nigeria* (1992); and Peter Gibbon, 'A Failed Agenda? African Agriculture Under Structural Adjustment with Special Reference to Kenya and Ghana', *JPS*, 20, 1 (1992), pp. 50-96.

<sup>65</sup> See Evans, 'State as Problem and Solution'; S. Please, 'Beyond Structural Adjustment in Africa', *DPR*, 10, 3 (1992), pp. 289-307; Julius E. Nyang'oro and Timothy M. Shaw (eds.), *Beyond Structural Adjustment in Africa* (New York, 1992); and Rolph van der Hoeven and Fred van der Kraaij (eds.), *Structural Adjustment and Beyond in Sub-Saharan Africa* (1994). For an agenda based largely on Nigeria's experience, see Akin L. Mabogunje, 'Capitalist Revolution: Strategy for Rural Development in Africa', *Africa*, 56, 1 (1986), pp. 97-102; and 'Mobilizing Nigeria's Grassroots for increased Food Production: Reaching out from the Centre' *FP*, 15, 4 (1990), pp. 306-312.

<sup>66</sup> David Gow and Jerry Vansant, 'Beyond the Rhetoric of Rural Development Participation: How Can it be Done?', *WD*, 11, 5 (1983), pp. 427-446.

<sup>67</sup> Chukwudi Obinne, 'A Strategy for Agricultural Progress and Socio-Economic Upliftment: Federation of Farmers' Associations of Nigeria', *CDJ*, 29, 1 (1994), 40-46; cf. James S. Wunsch and Dele Olowu (eds.), *The Failure of the Centralized State* (Boulder, 1990).

<sup>68</sup> Conrad P. Kottak, 'When People Don't Come First: Some Sociological Lessons from Completed Projects', in Michael Cernea (ed.), *Putting People First* (1991), pp. 431-464. For specific case studies, see David C. Korten, 'Community Organisation and Rural Development: A Learning Process Approach', *Public Administration Review*, 40, 5 (1980), pp. 480-511 and contributions in W. M. Adams and A. T. Grove (eds.), *Irrigation in Tropical Africa* (Cambridge, 1993).

specifically, by adopting smaller-scale projects with less ambitious objectives and targets.<sup>69</sup> At a wider level, social groups generally and rural groups in particular could be provided with access to policy-making through informal channels, as in Côte d'Ivoire and Kenya.<sup>70</sup> But the ultimate objective must be to develop open, accountable, democratic structures at all levels of society and to encourage countervailing sources of power and leverage over policy, for example, through autonomous farmers' pressure groups.<sup>71</sup> Either way, the quest for participatory rural development in Nigeria, like capitalist agriculture itself, could only be a long-drawn, crises-ridden process.

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<sup>69</sup> Norman Uphoff, 'Fitting Projects to People', in Cernea, *Putting People First*, pp. 467-511; and Dennis Rondinelli, *Development Projects as Policy Experiments* (2nd ed., 1993), pp. 154-188. Cf. Goran Hyden, 'Beyond Hunger in Africa - Breaking the Spell of Mono-Culture', in Ronald Cohen (ed.), *Satisfying Africa's Food Needs* (1988), pp. 47-78.

<sup>70</sup> Jennifer Widner, 'Single Party States and Agricultural Policies: The Cases of Ivory Coast and Kenya', *Comparative Politics*, 26, 2 (1994), pp. 127-147.

<sup>71</sup> For wider experiences, see Matthias Stiefel and Marshall Wolfe, *A Voice for the Excluded* (1994).



## Appendix: Questionnaire

Below are the questions asked from 164 farmer-respondents in Ayede, Igede, Ifafon, and Imojo. In many cases, respondents volunteered or were encouraged to provide more information on their personal experiences than are implied by these questions. These were also supplemented with informal interviews with farmers in and outside the survey area.

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Department of Economic History  
London School of Economics  
Houghton Street  
London WC2A 2AE  
United Kingdom.

12 March 1992.

Dear Sir/Madam,

The questionnaire below is part of a research project which assesses the socio-economic impact of agricultural and rural development policies and strategies in Ondo State. Information obtained from all respondents will be used for strictly academic purposes, and for seeking improvements in policies relating to agricultural production and rural development.

You are requested to please, provide answers to all questions. Thank you very much for your attention.

Yours sincerely,

Olufemi A. Akinola.

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### A. DEMOGRAPHIC DATA

1. Name of Respondent

2. Sex            M/F

3. Age Group      1. Up to 25      2. 25-35      3. 36-45  
                         4. 46-55      5. 56-65      6. 66 and over

4. Place of birth            1. Present village            2. Other village in LGA  
                                         3. Other LGA            4. Other state in Nigeria  
                                         5. Elsewhere

5. Reason for moving to village    1. With parents    2. Marriage    3. Better job/income  
                                                                                         4. Other \_\_\_\_    5. Never moved.

6. N<sup>o</sup> of years in village      1. Up to 5 years    2. 6-10 years    3. 11-15 years  
                                                                                         4. 16 years and over    5. Not applicable.

7. Marital status                      1. Single                      2. Married                      3. Divorced                      4. ~~Widow~~

8. N<sup>o</sup> of wives (enter actual number)

9. N<sup>o</sup> of children

	<u>Total born</u>	<u>Total alive/ present today</u>	<u>Of whom (N<sup>o</sup> aged)</u>		
			<u>0-5</u>	<u>6-14</u>	<u>15+</u>
9.1 Male children					
9.2 Female children					
9.3 Male dependents					
9.4 Female dependents					

10. Highest level of education

1. Primary                      2. Partial secondary                      3. Complete secondary  
4. Post-secondary/academic                      5. Vocational/commercial                      6. Agricultural  
7. Other.

## B. OCCUPATION AND INCOME

11. Major occupation (i.e. occupation that takes most of respondent's time)

1. Farming                      2. Driving                      3. Crafts                      4. Teaching                      5. Office work  
6. Petty trading                      7. Housewife                      8. Hunting                      9. Agricultural labour  
10. Not working.                      11. Other.

12. Secondary occupation (enter code number as in question 11)

13. Cash income from major occupation (Naira per annum)

1. Up to 500                      2. 501-1,000                      3. 1,001-2,500                      4. 2,501-5,000  
5. 5,001-7,500                      6. 7,501-10,000                      7. 10,000 and over.

14. Cash income from secondary occupation (Naira per annum)

(Enter code as in question 13)

## C. LIVING/SOCIAL CONDITIONS (Indicate the most 'modern' or advanced)

15. House Ownership                      1. Owned, inherited                      2. Owned, purchased                      3. Owned, built  
4. Rented/leased                      5. Pledged                      6. Other (specify)

16. Type of housing                      1. Seasonal                      2. Wood/mud, thatched                      3. Wood, mud, zinc roof  
4. Cement block/brick/zinc roof                      5. Other

17. Water Supply                      1. Tap, house connection                      2. Tap, public standpipe                      3. Well, in-house  
4. Well, elsewhere                      5. Well, public                      6. Other

18. Power supply                      1. National/rural electricity grid                      2. Generator (private)  
3. No electricity                      4. Other (specify)

19. Major cooking fuel                      1. Firewood                      2. Kerosene                      3. Gas  
4. Electricity                      5. Any combination                      6. Other

20. Ownership of means of transport                      1. Bicycle                      2. Motorcycle                      3. Car  
4. Lorry                      5. Other                      6. None

21. Radio/TV ownership 1. Radio only 2. TV only 3. Radio/cassette recorder  
4. Radio and TV 5. TV, radio/cassette player 6. None

**D. FARM ASSETS INVENTORY (Enter number of units)**

22. Grain store 23. Crib 24. Sheller 25. Mill 26. Planter 27. Sprayer  
28. Water pump 29. Tractor 30. Tractorized equipment 31. Other

**E. LIVESTOCK HUSBANDRY (Enter number of heads)**

32. Oxen 33. Cattle 34. Sheep 35. Goats 36. Pigs  
37. Poultry 38. Rabbits 39. Others

**F. AGRICULTURAL LAND**

40. N° of fields  
Total N° cultivated last season N° not cultivated last season

41. Land tenure

- 41.1 N° of fields inherited  
41.2 N° of fields purchased  
41.3 N° of fields rented  
41.4 N° of fields pledged  
41.5 N° of fields under other category (specify)

42. Form of rent 1. Cash 2. Kind 3. Mixed

43.1 Size of cash rent per year

43.2 Components of 42.2

44. Pledgee(s) 1. Community 2. Friends/neighbours 3. Government  
4. Employer 5. Other \_\_\_\_\_

**G. MAIN CROPS (Enter codes for first six)**

- 45.1 Field/Arable Crops 1. Yams 2. Cocoyam 3. Rice 4. Maize  
5. Cassava 6. Cowpea 7. Soyabean 8. Other \_\_\_\_\_

- 45.2 Tree Crops 9. Cocoa 10. Banana/plantain 11. Kolanut 12. Citrus  
13. Cashew 14. Mango 15. Other \_\_\_\_\_

46. Main Source of Seeds/seedlings

1. Own crop from previous year 2. Bought from ADP/FSC  
3. Bought from market/dealer 4. Obtained from friends 5. Combination  
6. Other \_\_\_\_\_

47. Use of fertilizer

- 47.1 Frequency 1. Always 2. Usually 3. Sometime  
4. Not needed

47.2 Type of fertilizer used last season

1. Compound 2. Ammonium sulphate 3. Calcium Ammonium Nitrate  
4. Urea 5. Triple Super Phosphate (TSP) 6. Combination  
7. Other \_\_\_\_\_ 8. None- too expensive 9. Don't know

47.3 Source of fertilizer used last season

1. ADP/FSC 2. Market/dealer/agent 3. Co-operative  
4. Combination 5. Other \_\_\_\_\_

48. Use of Chemicals

- 48.1 Frequency 1. Always 2. Usually 3. Sometime  
4. Never- not needed 5. Not available

48.2 Type of chemicals used last season

1. Fungicide 2. Insecticide 3. Herbicide 4. Seed dressing  
5. Storage chemicals 6. Combination 7. None- too expensive

48.3 Source of chemicals used last season

1. ADP/FSC 2. Market/dealer/agent 3. Co-operative  
4. Combination 5. Other

49. Use of family labour last season

1. Respondent only 2. Wife/wives 3. Children/dependents  
4. Relatives/friends 5. 1,2,3 only 6. All 7. Other

50. Use of hired labour

- 50.1 Frequency 1. Always 2. Usually 3. Sometime  
4. Never- not needed 5. Never- too expensive

50.2 Availability/supply

1. Always 2. Usually 3. Sometime 4. Never

50.3 Cost last season

1. Highly expensive 2. Average 3. Fair 4. Indifferent

51. Credit Facilities

- 51.1 Frequency 1. Always 2. Usually 3. Sometime  
4. Not needed 5. Not available

51.2 Type

1. Institutional 2. Informal 3. Both 4. Other

51.3 Source of Institutional Credit last season

1. ADP 2. Co-operative 3. Bank  
4. Combination 5. None needed 6. None available

51.4 Source of Informal credit last season

1. Esusu 2. Relatives 3. Friends/neighbours 4. Money lender  
5. Combination 6. None needed 7. None available

51.5 Size of Institutional Credit last season (Naira)

1. Up to 200 2. 201-300 3. 301-500 4. 501-1,000  
5. 1,001-2,000 6. 2,001-5,000 7. 5,001-10,000 8. 10,000 and over.

51.6 Size of Institutional Credit last season (Naira)

(Enter code as in 51.5)

**H. MARKETING:** For the major crops given in question 45, please indicate the following:

52. **FIRST CROP** (Enter code as given in question 45)

- 52.1 Proportion sold 1. Quarter 2. Half 3. Three-quarters  
4. Whole 5. None sold

52.2 Time of sale

1. Before harvest 2. Immediately after harvest  
3. Sold in small quantities after harvest 4. Kept in store and sold during lean period  
5. Other (specify) \_\_\_\_\_

52.3 Main Point of Sale

1. Farmgate    2. Own village market    3. Other village market  
4. Roadside/panbuyer    5. Farm Service Centre    6. Co-operative    7. Urban market  
8. Buying agent depot    9. Combination    10. Other \_\_\_\_\_

53. **SECOND CROP** (Enter code as given in question 45)

53.1 Proportion sold (Enter code as in question 52)

53.2 Time of sale                    -ditto-

53.3 Main Point of sale                -ditto-

54. **THIRD CROP** (Enter code as given in question 45)

54.1 Proportion sold (Enter code as in question 52)

54.2 Time of sale                    -ditto-

54.3 Main point of sale                -ditto-

55. **FOURTH CROP** (Enter code as given in question 45)

55.1 Proportion sold (Enter code as in question 52)

55.2 Time of sale                    -ditto-

55.3 Main point of sale                -ditto-

56. **FIFTH CROP** (Enter code as given in question 45)

56.1 Proportion sold (Enter crop as in question 52)

56.2 Time of sale                    -ditto-

56.3 Main point of sale                -ditto-

57. **SIXTH CROP** (Enter code as given in question 45)

57.1 Proportion sold (Enter code as in question 52)

57.2 Time of sale                    -ditto-

57.3 Main point of sale                -ditto-

**I. EXTENSION AND FARM MANAGEMENT**

58. Form of contact

1. Someone in household is contact farmer  
2. Someone in household is part of extension group  
3. Someone in household is part of any other form of extension contact  
4. Extension not required  
5. Extension available, but household never contacted.

59. Frequency of visits of Extension Agent

1. Very frequent, regular (once in two weeks)                    2. Frequent, regular (once in a month)  
3. Sporadic, irregular                    4. Very seldom  
5. Other (Specify) \_\_\_\_\_

60. Extension Messages applied

1. Land cultivation techniques                    2. Use of improved seed varieties  
3. Use of fertilizer/other chemicals                    4. Harvesting techniques  
5. Combination (1-4)                    6. Storage and processing techniques  
7. Fish farming                    8. All                    9. None applied

61. Participation in Extension Group Activities

1. Yes, attend regularly                    2. Yes, attend irregularly  
3. No, not informed                    4. No, none available

62. Visits to Demonstration Plots

- |                          |                            |
|--------------------------|----------------------------|
| 1. Yes, attend regularly | 2. Yes, attend irregularly |
| 3. No, not informed      | 4. No, none available      |

63. Participation in Co-operative Society Meetings

- |                          |                            |
|--------------------------|----------------------------|
| 1. Yes, attend regularly | 2. Yes, attend irregularly |
| 3. No, not informed      | 4. No, not a member        |
| 5. No, none available    |                            |

64. Participation in Farmers' Congress Meetings

- |                          |                            |
|--------------------------|----------------------------|
| 1. Yes, attend regularly | 2. Yes, attend irregularly |
| 2. No, not informed      | 4. No, not a member        |
| 5. No, none available    |                            |

65. Participation in Community Development Association (Egbe Iloiwaju/Ibile) Meetings

- |                          |                            |
|--------------------------|----------------------------|
| 1. Yes, attend regularly | 2. Yes, attend irregularly |
| 3. No, not informed      | 4. No, not a member        |
| 5. No, none available    |                            |

66. Do you belong to any other farmers' or rural development association? If yes, specify.

67. Which of these groups gave you most of the things you expected?

- |                                      |                    |                      |
|--------------------------------------|--------------------|----------------------|
| 1. ADP                               | 2. Co-operatives   | 3. Farmers' Congress |
| 4. Community Development Association | 5. Combination     |                      |
| 6. They are the same                 | 7. Other (specify) |                      |

68. Extension Pamphlets and Broadcast

- |                               |                                |                       |
|-------------------------------|--------------------------------|-----------------------|
| 1. Listen to radio programmes | 2. Watch television programmes |                       |
| 3. Read pamphlets             | 4. Any combination             | 5. None of the above. |

69. In what areas do you expect increased government assistance?

# Bibliography

## 1. Primary Sources

### (A) Archival Material - National Archives, Ibadan (NAI)

File Number	Description
CSO26/35703	Opening, Closing and Extension of Agricultural Stations, 1924-50
CSO26/35703/s.2	Agricultural Station at Ibadan, 1924-46
CSO26/31071/vol. I	The Plantation System in Nigeria: General Policy 1925-37
CSO26/24262, vol. I	Irrigation in Nigeria, 1929-34
CSO26/24262 vol. II	Irrigation in Nigeria, 1937-39
CSO26/24262 vol. III	Irrigation in Nigeria, 1939-48.
CSO26/29800	Intelligence Report on Itaji District, Ekiti Division, 1934 Also in Ondo Prof. 1/1/634, 1934-52.
CSO26/26298/s.10	Establishment of Young Farmers' Clubs in Schools, 1934
CSO26/31014	Intelligence Report on the Ayede District, Ekiti Division, 1935 Also in Ondo Prof. 1/2/625.
CSO26/31073	Young Farmers' Club, 1936.
CSO26/30983	Intelligence Report on Ishan District, Ekiti Division Also in Ondo Prof. 1/1/831, 1936-52.
CSO26/4/34177	Agricultural Policy 1938-51
CSO26/36378	Local Production of Foodstuff, 1939-51
CSO26/36378/s.28	Local Food Production: Appointment of Director of Food Production, 1940-44
CSO26/41996	Co-operative Agricultural Settlements, 1940-52
CSO26/35494	Water Supplies for Agricultural Farms in the Northern Provinces 1943/44
CSO26/36148/s.140	Proposals for the Reorganisation of the Nigerian Cocoa Industry by the Registrar of Co-operative Societies 1944-45.
CSO26/36378/s.13	Local Production of Foodstuff: Half-Yearly Reports, 1940-42
CSO26/43172	Amalgamation of Marketing and Produce Inspection Sections, 1944-52
CSO26/45367/s.1	Agriculture Ten-Year Development Estimates 1946-47

CSO26/03775/s.4 vol. II	Agricultural Department Annual Report, 1947-49
CSO26/36378/s.42	Land Settlement and Food Production Schemes on a Group Basis 1951
Ondo Prof. 1/1/120A	Annual Report, Ekiti Division, 1945-52 (some years missing)
Ondo Prof. 1/1/392A	Intelligence Report, Ekiti Division, 1944-47
Ondo Prof. 1/1/2810	Oke-Igbira Cooperative Rice Farmers, 1952-53
Ondo Prof. 1/1/2881	Egbira-Ekiti Cooperative Plantation Project, 1952.

## **(B) Official Reports and Publications**

### **(i) Federal Government (including Colonial era)**

*Annual Report on the Southern Provinces of Nigeria*, various years (Lagos: Government Printer, various years).

H. B. Cox, *Census of Nigeria, 1931 Vol. III Census of the Southern Provinces* (London: HMSO, 1932).

'Co-operative Societies Ordinance N<sup>o</sup> 39 of 1935' (Lagos: Government Printer, 1935).

*Report of the Commission on the Marketing of West African Cocoa* (London: HMSO, 1938)

*Report of a Committee Appointed in Nigeria to Examine the Recommendations made by the Commission on the Marketing of West African Cocoa* (Lagos: Government Printer, 1939).

'Preliminary Statement on Development Planning in Nigeria', *Sessional Paper N<sup>o</sup> 6 of 1945* (Lagos: Government Printer, 1945).

'Statement of Agricultural Policy', *Sessional Paper N<sup>o</sup> 16 of 1946*.

*Rural Economic Survey of Nigeria: Consolidated Report of the Land Tenure Inquiries, 1965/66, 1966/67 and 1967/68* (Lagos: Federal Office of Statistics, 1972).

Nigeria, *NISH: Report of Rural Agricultural Sample Survey 1980/81* (Lagos: Federal Office of Statistics, 1983).

Ministry of Agriculture, Water Resources and Rural Development, *Agricultural Policy for Nigeria* (Lagos: Government Printer, 1988).

CBN- Central Bank of Nigeria, *Statistical Bulletin*, 1, 1 & 2 (1990).

CBN/NISER, *The Impact of SAP on Nigerian Agriculture and Rural Life*, Vol. II (CBN/NISER 1992).

Department of Information, *Green Revolution: Insurance Against Hunger* (Lagos: Department of Information, 1982).

Department of Rural Development, 'A Decade of ADPs: Ten Years of Progress' (Lagos: 1986).

Ministry of Budget and Planning, *Assessment and Evaluation of the Structural Adjustment Programme* (Lagos: Federal Government Printer, 1990).



## **(ii) Western Nigeria/Western Region of Nigeria/Western State of Nigeria**

*Agricultural Policy for the Western Region, Nigeria* (Ibadan: Government Printer, 1952).

*Co-operative Department Policy for the Western Region, Nigeria* (Ibadan: Government Printer, 1952).

*Annual Report of the Department of Agriculture, Western Region for the Year 1952-53* (Government Printer, 1957).

'Future Policy of the Ministry of Agriculture and Natural Resources', *Sessional Paper N<sup>o</sup> 9 of 1959*.

'Western Nigeria Development Plan 1955-60', *Sessional Paper N<sup>o</sup> 8 of 1961* (Ibadan: Government Printer, 1961).

'Western Nigeria Development Plan 1962-68', *Sessional Paper N<sup>o</sup> 8 of 1962* (Ibadan: Government Printer, 1962).

'White Paper on Integrated Rural Development', *Official Document N<sup>o</sup> 8 of 1963* (Ibadan, Government Printer, 1963).

Western Nigeria Marketing Board, *Statistical Information on Western State of Nigeria Controlled Produce* (Ibadan: Statistics Division, WNMB, 1969, 1975).

*Western Nigeria Statistical Bulletin*, various issues.

*Western State of Nigeria Statistical Abstract, 1970* (Ibadan: Government Printer).

*Report of Agricultural Survey in the Western State of Nigeria 1975* (Ibadan: Ministry of Economic Development, 1976).

## **(iii) Ondo State Government/Ondo State of Nigeria**

*Digest of Agricultural Statistics, 1976* (Akure: Ministry of Finance and Economic Development, n.d.)

*ODS Statistical Abstract 1976* (Akure: Ministry of Finance and Economic Development, 1976).

*Rural Economic Survey 1976* (Akure: Ministry of Finance and Economic Development, n.d.).

*Report on Rural Economic Survey 1978* (Akure: Ministry of Economic Planning and Statistics, n.d.).

*ODS Statistical Abstract 1978/79* (Akure: Ministry of Economic Planning and Statistics, 1980).

*Report of Agricultural Crop Reporting Survey 1986/87* (Akure: Ministry of Finance and Economic Planning, n.d.).

*Digest of Agricultural Statistics in Ondo State, 1988* (Akure: Department of Research and Statistics, Ministry of Finance, n.d.).

Ondo State DFFRI, *The Journey so far* (Akure: Director of Printing, n.d.).

OSFC- Ondo State Farmers' Congress, *The Constitution of the Ondo State Farmers' Congress* (Akure?, n.d.).

OSFC, 'Summary of Revolving Loan Repayment as at 10th April 1992', mimeo (n.d.).

#### **(iv) Project Reports and Documents (EAADP and ODSADEP, irrespective of source)**

APMEPU, 'Ekiti-Akoko Agricultural Development Project Report on the Village Listing Exercise' (Benin City, APMEPU, 1982).

APMEPU, *Ekiti-Akoko Agricultural Project Completion Report*, Main Report 2 Vols.

Jen Christensen, *Ekiti-Akoko ADP Final Report* (Ikole-Ekiti: EAADP, 1984).

EAADP, 'Agreement for Consultancy Services Between the Ministry of Agriculture and Rural Development Ondo State and Danish Rural Development Consultants (DARUDEC) Copenhagen-Denmark' (August 1981).

EAADP, *Annual Report*, various years.

EAADP, 'Brief on Ekiti-Akoko Agricultural Development Project from Inception to October 1986' (Ikole-Ekiti: Ministry of Agriculture and Rural Development, 1986?).

EAADP, *Internal Project Completion Report* (Ikole Ekiti: EAADP, 1987).

ODSADEP, 'Ondo State Implementation Strategy for the Achievement of the National Agricultural Policy', Internal Briefing Paper, 1992.

-----, 'Report for 1989/90 and 1990/91: Supplementary Fertilizer Surveys', Internal Briefing Paper, 1992.

World Bank, *Ekiti-Akoko ADP Staff Appraisal Report* (World Bank Regional Office, 1980)

#### **(v) Other Official Reports and Publications**

FAO, *Agricultural Development in Nigeria 1965-80* (Rome: FAO, 1966).

World Bank, *The Economic Development of Nigeria* (Baltimore, John Hopkins Press, 1955).

-----, 'Loan Agreement (Second Cocoa Project) Between Federal Republic of Nigeria and International Bank for Reconstruction and Development', October 11, 1974.

-----, 'Project Agreement (Second Cocoa Project) Between International Bank for Reconstruction and Development and Western State of Nigeria and Mid-Western State of Nigeria', October 11, 1974.

-----, *Nigeria: options for Long-Term Development* (Baltimore and London: John Hopkins, 1974).

-----, *Rural Development: Sector Policy Paper* (World Bank, 1975).

-----, *Agricultural Research and Extension: An Evaluation of the World Bank's Experience* (Washington, D.C.: IBRD, 1985).

-----, *Rural Development: World Bank Experience, 1965-86* (Operations Evaluation Department, 1988).

-----, *Accelerated Development in Sub-Saharan Africa: An Agenda for Action* (Washington, D.C.: IBRD, 1981).

-----, *Sub-Saharan Africa: From Crisis to Sustainable Growth* (Washington, D.C.: The World Bank, 1989).

-----, *African Development Indicators* (Washington: IBRD, 1992).

-----, *Trends in Developing Economies 1992* (Washington, D.C., The World Bank, 1992).

-----, *Social Indicators of Development 1994* (Baltimore and London: John Hopkins University Press, 1994).

## 2. Secondary Sources

### (A) Theses and other Manuscripts

Olufemi A. Akinola, 'The Politics of Farmer Organisation in Ondo State, Southwestern Nigeria in the 1980s', paper presented at the International Conference on Cocoa and Economic Development in the 19th and 20th Centuries, London, September 1993.

R. O. Arabi, 'Cropping Practices of Farmers in the Ekiti/Akoko ADP Area, Ondo State, Nigeria', M.Sc Dissertation, Department of Agronomy, University of Ibadan, 1985.

D. O. Atte, 'Resources and Decisions: Peasant Farmer Agricultural Management and its Relevance to Rural Development Planning in Kwara State, Nigeria', Ph.D thesis, University of London, 1980.

Solomon A. Azeigbe, 'The Paradox of Creating Special Agency for Rural Development in Nigeria', Paper for the XVth World Congress of the International Political Science Association, Buenos Aires, 1991.

Bjorn Beckman, 'The World Bank and the Nigerian Peasantry: An Outline', mimeo (1981).

Robert J. Clarke, 'Agricultural Production in a Rural Yoruba Community', Ph.D thesis, University of London (1979).

Jan-Georg Deutsch, 'Educating the Middlemen: A Political and Economic History of Statutory Cocoa Marketing in Nigeria, 1936-1947', Ph.D thesis, University of London, 1991.

R. A. Dunmoye, 'The State and the Peasantry: The Politics of Integrated Rural Development Projects in Nigeria', Ph.D thesis, University of Toronto, Canada (1986).

Peter P. Ekeh, 'The African State and the African Crisis', paper presented at the First Symposium of the Special Committee on Africa of the United Nations University, Nairobi, Kenya, 1985.

Adebayo Elebute, 'The Socio-Economic Impact of Ekiti-Akoko Agricultural Project in Ekiti North Local Government Area of Ondo State', B.Sc Honours Essay, Department of Geography, University of Ilorin (1985).

Dickson L. Eyoh, 'State, Capital and Agrarian Transformation in Nigeria: Politics and Production in Lafia', Ph.D thesis, University of York, Canada (1989).

A. G. Hopkins, 'An Economic History of Lagos 1880-1914', Ph.D Thesis, University of London, 1964.

Francis S. Idachaba, 'Institutional Strategies for Self-Sufficiency in Food Production', Public Service Lecture, NIIA, Lagos, 21 August 1990.

Maikudi Karaye, 'Hausa Peasants and Capitalism: A Case Study of Rural and Agricultural Development in Kano State in Nigeria', Ph.D thesis, University of Wisconsin-Madison, 1990.

Duro Oniemola, 'The World Bank and Capitalist Agricultural Development: The Ilorin Agricultural

Development Project in Nigeria', mimeo (Institute of Ethnology, Free University of Berlin, 1986).

L. C. Uzozie, 'Tradition and Change in Igbo Food-crop Production Systems: A Geographical Appraisal', Ph.D thesis, University of London, 1979.

## **(B) Journal Articles, Chapters, and Books**

G. O. I. Abalu, 'Solving Africa's Food Problem', *FP*, 7 (1982), 247-56.

----- and B. D'Silva, 'Nigeria's Food Situation: Problems and Prospects', *FP*, 5, 1 (1980), 49-60.

K. C. Abercrombie, 'Agricultural Mechanisation and Employment in Latin America', in ILO, *Mechanisation*, 45-79.

W. M. Adams, 'Rural Protest, Land Policy and the Planning Process on the Bakolori Project, Nigeria', *Africa*, 58, 3 (1988), 315-336.

-----, 'Development's Deaf Ear: Downstream Users and Water Releases from the Bakolori Dam, Nigeria', *WD*, 21, 9 (1993), 1405-1416.

----- and A. T. Grove (eds.), *Irrigation in Tropical Africa: Problems and Problem Solving* (Cambridge: African Studies Centre, 1993).

A. A. Adegbola and I. A. Akinbode, 'A Review of Old and Current Agricultural Development Schemes in Nigeria: Lessons for Future Programme Designs', *IJA*, 8 (1986), 1-33.

R. O. Adegboye, 'An Analysis of Land Tenure in Selected Areas in Nigeria', *BRES*, II, 1 (1966), 38-51. Also in *NJESS*, 8, 2 (1966), 259-268.

-----, 'Farm Tenancy in Western Nigeria', *NJESS*, 8, 3 (1966), 441-453.

-----, 'Procuring Loans through Pledging of Cocoa Trees', *NGJ*, 12, 1&2 (1969), 63-76.

-----, 'The Land Use Decree: A Revolution in Land Ownership?', in O. Oyediran (ed.), *Survey of Nigerian Affairs 1977-78* (Lagos: NIIA, 1981), 47-54.

-----, A. C. Basu and Dupe Olatunbosun, 'Impact of Western Nigerian Farm Settlements on Surrounding Farmers', *NJESS*, 11, 2 (1969), 229-240.

A. J. Adegeye, 'Re-Examination of the Issues involved in the Farm Settlement Scheme of the Western State of Nigeria', *OAS*, III, 1, new ser. (1974), 79-88.

-----, 'Some Farming Characteristics of Peasants in the Guinea Savanna Belt of Oyo, Ogun and Ondo States and their Implications for Beef Cattle Production', *Savanna*, 7, 1 (1978), 53-56.

A. J. Adejo, 'The Impact of Agricultural Development Projects on Quality of Life in Rural Areas', in Igbozurike and Raza, *Rural Nigeria*, 193-203.

Tomilayo Adekanye, 'Agricultural Credit in Africa: Implications of the Nigerian Experience', *Agricultural Administration*, 14, 4 (1983).

A. E. Afigbo, *The Warrant Chiefs: Indirect Rule in Southeastern Nigeria, 1891-1929* (Harlow: Longman, 1972).

- Akinola Agboola, 'Ways of Improving Farming Systems in Western Nigeria', *Odu*, 4, 1 (1967), 44-60.
- S. A. Agboola, 'The Collection of Agricultural Statistics in Nigeria: The Example of the Agricultural Censuses, 1960-65', *NAJ*, 2, 2 (1965), 53-60.
- , 'Patterns of Food Crop Production in South-Western Nigeria', *NGJ*, 11, 2 (1968).
- , 'The Introduction and Spread of Cassava in Western Nigeria', *NJESS*, 10, 3 (1968), 369-385.
- , 'Migrant Farmers of the Eastern Cocoa Zone: Migration Pattern', in Aderanti Adepoju (ed.), *Internal Migration in Nigeria* (Ile-Ife: Department of Demography and Social Statistics, University of Ife, 1976), 88-103.
- , *An Agricultural Atlas of Nigeria* (Oxford: OUP, 1979).
- , 'Agricultural Changes in Western Nigeria 1850-1910', in Akinjogbin and Osoba (eds.), *Topics in Nigerian History*, 128-145.
- B. A. Agiri, 'The Development of Wage Labour in Agriculture in Southern Yorubaland', *JHSN*, XII, 1/2 (1983/84), 95-107.
- Zubeida Ahmad, 'The Social and Economic Implications of the Green Revolution in Asia', *ILR*, 105, 1 (1972), 9-34.
- Iftikhar Ahmed, 'The Green Revolution and Tractorisation: Their Mutual Relations and Socio-Economic Effects', *ILR*, 114, 1 (1976), 83-93.
- J. F. A. Ajayi, 'Professional Warriors in 19th Century Yoruba Politics', *Tarikh*, 1, 1 (1965), 72-81.
- , *Christian Missions in Nigeria, 1841-1891* (1965).
- and R. A. Austen, 'Hopkins on Economic Imperialism in West Africa', *EHR*, 2nd ser., XXV, 3 (1972), 303-306.
- , 'The Aftermath of the Fall of Old Oyo', in J. F. Ade Ajayi and Michael Crowder (eds.), *History of West Africa*, vol. II (2nd ed. 1987), 174-214.
- and J. D. Y. Peel (eds.), *People and Empires in African History* (1992).
- Bola Akanji, *Cocoa Marketing Under Nigeria's Structural Adjustment Programme*, NISER Monograph Series N<sup>o</sup> 1 (1992).
- Adefolu Akinbode and J. Y. Yayock, 'Recurrent Financing of Agricultural Services in Nigeria's Agricultural Development Projects', in John Howell (ed.), *Recurrent Costs and Agricultural Development* (1985), 190-197.
- I. A. Akinbode, 'Roles of the Divisional Extension Officers in the Western State of Nigeria', *QJA*, 6, 1 (1971), 29-42.
- I. A. Akinjogbin and S. O. Osoba (eds.), *Topics in Nigerian Economic and Social History* (Ile-Ife: University of Ife Press, 1980).
- A. Akintoye, 'The Economic Background of the Ekitiparapo 1878-1893', *Odu*, 4, 2 (1968), 30-52.
- , 'The Ondo Road Eastwards of Lagos c. 1870-95', *JAH*, X, 4 (1969), 581-598.

- , 'The North-Eastern Yoruba Districts and the Benin Kingdom', *JHSN*, IV, 4 (1969), 539-553.
- , *Revolution and Power Politics in Yorubaland, 1840-1893: Ibadan Expansion and the Rise of Ekiti-Parapo* (1971).
- , 'The Economic Foundations of Ibadan's Power in the Nineteenth Century', in Akinjogbin and Osoba (eds.), *Topics on Nigerian History*, 55-65.
- C. O. Akomolafe, 'The Establishment of British Administration and its impact on Owo-Akoko Relations 1919-1935', *JHSN*, X, 1 (Dec. 1979), 65-85.
- N. U. Akpan, *Epitaph to Indirect Rule* (1967).
- J. A. Alao, 'The Extension of Agricultural Innovations', in E. O. Akeredolu-Ale (ed.), *Social Development in Nigeria* (Ibadan: NISER, 1977), 233-250.
- , 'The Diffusion of Poultry Farming in Nigeria', *AJAS*, V, 2 (1978), 15-28.
- R. A. Alkali, 'The World Bank: Financing Rural Development and the Politics of Debt in Nigeria', *AD*, XVI, 3/4 (1991), 163-179.
- H. P. Allen, 'Weed Problems in World Agriculture', *WC*, 8, 6 (1956), 217-222.
- P. A. Allison, 'From Farm to Forest', *FaF*, 11, 2 (1941), 95-98.
- Gerald M. Alter, 'World Bank Goals in Project Lending', *FaD*, 15, 2 (1978), 23-25.
- Olajide Aluko, 'Politics of Decolonisation in British West Africa, 1945-1960', in J. F. Ade Ajayi and Michael Crowder (eds.), *History of West Africa*, vol. I (3rd. ed, 1985), 693-735
- S. A. Aluko, 'Agriculture and Economic Development in Nigeria', *NJESS*, 1, 1 (1959), 27-40.
- , 'How Many Nigerians: An Analysis of Nigeria's Census Problems, 1901-63', *JMAS*, 3, 3 (1965), 371-392.
- David W. Ames, 'Wolof Co-operative Work Groups', in William R. Bascom and Melville J. Herskovits (eds.), *Continuity and Change in African Cultures* (Chicago: University of Chicago Press, 1959), 224-237.
- A. O. Anjorin, 'European Attempts to Develop Cotton Cultivation in West Africa, 1850-1910', *Odu*, 3, 1 (1966), 3-15.
- A. Apter, *Black Critics and kings: The Hermeneutics of Power in Yoruba Society* (1993).
- S. S. Acharya, 'Green Revolution and Farm Employment', *IJAE*, XXVIII, 3 (1973), 30-45.
- Lekan Are, 'An Assessment of Some Plantation Problems in Western Nigeria', *TA*, 41, 1 (1964), 1-13.
- T. S. B. Aribisala, 'Nigeria's Green Revolution: Achievement, Problems and Prospects', *NISER Distinguished Lecture N<sup>o</sup> 1* (Ibadan: NISER, 1983).
- Dan R. Aronson, *The City is Our Farm: Seven Migrant Ijebu Yoruba Families* (Cambridge, Mass.: Schenkman Pub. Co., 1978).
- P. L. Arya, 'The Green Hope', *West Africa*, 23 June 1986, 1315-1316.

D. G. Ashby and R. K. Pfeiffer, 'Weeds: A Limiting Factor in Tropical Agriculture', *WC*, 8, 6 (1956), 227-229.

A. I. Asiwaju, 'The Co-operative Movement in the Colonial Context: A Comparison of the French and British Rural West African Experience to 1960', *JHSN*, XI, 1/2 (1981/82), 89-108.

J. A. Atanda, 'The Ìsáyìn-Òkèihò Rising of 1916: An Example of Socio-Political Conflict in Colonial Nigeria', *JHSN*, IV, 4 (1969), 497-514.

-----, *The New Oyo Empire: Indirect Rule and Change in Western Nigeria, 1891-1934* (Harlow: Longman, 1973).

Ralph Austen, *African Economic History* (1987).

G. Austin, 'Capitalists and Chiefs in the Cocoa Hold-Ups in South Ashante, 1927-1938', *IJAHS*, XXI, 1 (1988), 63-95.

Eme O. Awa (ed.), *The Transformation of Rural Society: A Study of Rural Development in the Eastern States of Nigeria 1970-76* (Jos: National Institute for Policy and Strategic Studies, 1988).

Bolanle Awe, 'The Ajele System - A Study of Ibadan Imperialism in the Nineteenth Century', *JHSN*, III, 1 (1964), 47-60.

-----, 'Militarism and Economic Development in Nineteenth Century Yoruba Country: The Ibadan Example', *JAH*, XIV, 1 (1973), 65-77.

E. A. Ayandele, 'The Relations Between the Church Missionary Society and the Royal Niger Company, 1886-1900', *JHSN*, IV, 3 (1968), 397-419.

A. A. Ayida, 'Basic Issues in the Financing of Nigerian Agriculture in the Seventies', in his *Reflections on Nigerian Development* (Lagos and Ibadan: Malthouse Press and Heinemann, 1987), 108-118.

S. B. Ayo, 'Local Government and Rural Development in Nigeria since Independence', *JHSN*, XII, 1 & 2, (Dec. 1983/June 1984), 65-80.

J. A. A. Ayoade, 'The African Search for Democracy: Hopes and Reality', in Dov Ronen (ed.), *Democracy and Pluralism in Africa* (Boulder: Lynne Rienner, 1986), 19-33.

-----, 'States Without Citizens: An Emerging African Phenomenon', in Donald S. Rothchild and Naomi Chazan (eds.), *The Precarious Balance: State and Society in Africa* (Boulder: Westview, 1988), 100-118.

Robert L. Ayres, *Banking on the Poor: The World Bank and World Poverty* (Cambridge, Mass.: MIT Press, 1984).

Ademola Babalola, 'Capitalist Development in Agriculture: The Case of Commercial Tobacco Farming in the Oyo-North Division, Oyo State, Nigeria', *AEH*, 21 (1993), 37-49.

Peter Bachrach and Morton S. Baratz, 'The Two Faces of Power', *APSR*, 56, 4 (1962).

V. N. Balasubramaniam, *The Economy of India* (1984).

K. D. S. Baldwin, *The Niger Agricultural Project: An Experiment in African Development* (Oxford: Blackwell, 1957).

- , 'The Mokwa Land Settlement Scheme', in Eicher, *Growth and Development*, 163-178.
- Olajire A. Bamişaye, 'The State and Agricultural Policy in Nigeria with particular reference to the Second Republic', *Odu*, New ser., 26 (1984), 44-67.
- , 'An Evaluation of the Operation Feed the Nation Policy in Nigeria', *NJESS*, 27, 1 (1985), 75-95.
- , 'The Crisis of Green Revolution Programme in Nigeria: The Need for a Rural Development Policy' in Ajibade Ogunjumo *et. al.*, *Nigeria's Economic Recovery: Implications and Alternatives* (Ile-Ife: Faculty of Social Sciences, 1988), 12-27.
- A. W. van den Ban and H. S. Hawkins, *Agricultural Extension* (Harlow: Longman, 1988).
- Morton Baratz, 'Public Investment in Private Enterprise: A Western Nigeria Case Study', *NJESS*, 6, 1, (1964), 60-71.
- Pranab Bardhan, 'Symposium on the State and Economic Development', *JEP*, 4, 3 (1990), 3-7.
- J. D. Barkan and F. Holmquist, 'Peasant-State Relations and the Social Base of Self-Help in Kenya', *WP*, 41, 3 (1989), 359-80.
- , Michael L. McNulty, and M. A. O. Ayeni, 'Hometown Voluntary Associations, Local Development, and the Emergence of Civil Society in Western Nigeria', *JMAS*, 29, 3 (1991), 457-480.
- Stanley Barrett, *The Rise and Fall of an African Utopia: A Wealthy Theocracy in Comparative Perspective* (Waterloo: Wilfred Laurier University, 1977).
- William Bascom, 'The Principle of Seniority in the Social Construction of the Yoruba', *American Anthropologist*, 1 (1942), 37-46.
- , 'Social Status, Wealth and Individual Differences among the Yoruba', *American Anthropologist*, LIII, 4 (1951), 490-506.
- , 'Yoruba Food', *Africa*, XXI, 1 (1951), 41-53.
- , 'Yoruba Cooking', *Africa*, XXI, 2 (1951), 125-137.
- , 'The Esusu: A Credit Institution of the Yoruba', *Journal of the Royal Anthropological Institute*, LXXXII, 1 (1952), 63-69.
- , *The Yoruba of Southwestern Nigeria* (New York: Holt, Rinehart and Winston, 1969).
- Robert H. Bates, 'Pressure Groups, Public Policy, and Agricultural Development: A Study of Divergent Outcomes', in Bates and Lofchie, *Agricultural Development in Africa*, Reprinted in Bates, *Essays on the Political Economy of Rural Africa* (Cambridge: CUP, 1983), 61-91.
- and Michael Lofchie (eds.), *Agricultural Development in Africa: Issues of Policy* (NY: Praeger, 1980).
- , *Markets and States in Tropical Africa* (Berkeley: University of California Press, 1981).
- , *Essays on the Political Economy of Tropical Africa* (1983).
- , 'Some Contemporary Orthodoxies in the Study of Agrarian Change' in Atul Kohli (ed.), *The State and Development in the Third World* (Princeton: Princeton University Press, 1986), 67-87.



- , 'The Politics of Agricultural Pricing in Sub-Saharan Africa', in Z. Ergas, *The African State*, 237-261.
- , 'The Reality of Structural Adjustment: A Sceptical Appraisal', in Commander, *Structural Adjustment and Agriculture*, 221-227.
- , *Beyond the Miracle of the Market* (Cambridge: CUP, 1989).
- and William Rogerson, 'Agriculture in Development: A Study of Divergent Outcomes', *Public Choice*, 35 (1980), 513-527.
- Wayne Bath and Oluwadiya Adeogun, 'Farm Settlement Scheme of Western Nigeria', *BRES*, 2, 1 (1966).
- Peter Bauer, *West African Trade* (1954).
- , 'Origins of Statutory Export Monopolies of British West Africa', *Business History Review*, XXVIII, 3 (1954), 197-213.
- , 'The Economics of Resentment: Colonialism and Underdevelopment', *Journal of Contemporary History*, 4, 1 (1969), 51-71.
- , 'Economic History as Theory', in idem, *Equality, the Third World and Economic Delusion* (1981), 221-238.
- , 'Reflections on the State of Economics', in idem, *Equality*, 255-266.
- , *Frontiers of Development* (1991).
- Warren C. Baum, 'The World Bank Project Cycle', *FaD*, 15, 4 (1978), 10-17.
- Michael Baxter, 'New Developments in Agricultural Extension', in Nigel Roberts (ed.), *Agricultural Extension in Africa* (Washington, D.C.: IBRD, 1989), 93-98.
- Jean-François Bayart, *The State in Africa: The Politics of the Belly* (1993).
- Bjorn Beckman, *Organising the Farmers* (Uppsala: Scandinavian Institute of African Studies, 1976).
- , 'Bakolori: Peasants vs. State and Capital', *NJESS*, 4, 1&2 (1985), 76-104.
- , 'Bakolori: Peasants versus State and Industry in Nigeria', in E. Goldsmith and N. Hilyard (eds.), *The Social and Environmental Effects of Large Dams*, Vol. II: Case Studies (Wadebridge: Wadebridge Ecology Centre, 1986), 140-55.
- , 'Public Investments and Agrarian Transformation in Northern Nigeria', in Watts, *State, Oil, and Agriculture*, 110-137.
- , 'The Post-Colonial State: Crisis and Reconstruction', *IDS Bulletin*, 19,4 (1988), 26-34.
- C. E. F. Beer, *The Politics of Peasant Groups in Western Nigeria* (Ibadan: IUP, 1975).
- Clive Bell, 'Development Economics', in John Eatwell, M. Milgate and P. Newman (eds.), *The New Palgrave Dictionary of Development* (Macmillan), 1-17.
- McDonald P. Benjamin, 'Nigeria- Funtua Agricultural Development Project', in Benjamin, *Investment Projects in Agriculture* (1985), 178-216.

- G. Benneh, 'The Ecology of Peasant Farming in Ghana', *Environment in Africa*, 1, 1 (1974), 35-49.
- D. Benor and M. Baxter, *Training and Visit Extension* (Washington, D.C.: IBRD, 1984).
- , James Harrison and M. Baxter, *Agricultural Extension: The Training and Visit System* (Washington, D.C.: IBRD, 1984).
- Elliot Berg, 'Structural Transformation versus Gradualism: Recent Economic Developments in Ghana and the Ivory Coast', in Philip J. Foster and Aristide R. Zolberg (eds.), *Ghana and the Ivory Coast: Perspectives on Modernisation* (Chicago: Chicago University Press, 1971), 187-230.
- Sara S. Berry, 'Christianity and the Rise of Cocoa-Growing in Ibadan and Ondo', *JHSN*, IV, 3 (1968), 439-451.
- , 'Cocoa and Economic Development in Western Nigeria', in Eicher, *Growth and Development*, 16-29.
- , 'Economic Development with Surplus Labour: Further Complications Suggested by Contemporary African Experience', *Oxford Economic Papers*, new ser., 22, 2 (1970), 275-287.
- , 'The Concept of Innovation and the History of Cocoa Farming in Western Nigeria', *JAH*, XV, 1 (1974), 83-95.
- , *Cocoa, Customs, and Socio-Economic Change in Rural Western Nigeria* (Oxford: Clarendon, 1975).
- , 'Supply Response Reconsidered: Cocoa in Western Nigeria, 1909-44', *JDS*, 13, 1 (1976), 4-17.
- , 'Rural Class Formation in West Africa' in Bates and Lofchie, *Agricultural Development in Africa* (1980), 401-424.
- , 'The Food Crisis and Agrarian Change in Africa', *ASR*, 27, 2 (1984), 59-72.
- , *Fathers Work for Their Sons: Accumulation, Mobility, and Class Formation in an Extended Yoruba Community* (Berkeley: University of California Press, 1984).
- , 'Oil and the Disappearing Peasantry: Accumulation, Differentiation, and Underdevelopment in Western Nigeria', in M. Watts (ed.), *State, Oil and Agriculture*, 202-222.
- , 'Concentration Without Privatization? Some Consequences of Changing Patterns of Rural Land Control in Africa', in R. E. Downs and S. P. Reyna (eds.), *Land and Society in Contemporary Africa* (Hanover and London: University Press of New England, 1988), 53-75.
- , 'Social Institutions and Access to Resources', *Africa*, 59, 1 (1989), 41-55.
- , 'Migrant Farmers and Land Tenure in the Nigerian Cocoa Belt', in Otite and Okali, *Readings in Nigerian Rural Society*, 85-100.
- , 'Hegemony on a Shoestring: Indirect Rule and Access to Agricultural Land', *Africa*, 62, 3 (1992), 327-355.
- , 'Coping With Confusion: African Farmers' Responses to Economic Instability in the 1970s and 1980s', in Callaghy and Ravenhill, *Hemmed In*, 248-278.
- , 'Inconclusive Encounters: Farmers and States in the Era of Planned Development', in her *No Condition is Permanent: The Social Dynamics of Agrarian Change in Sub-Saharan Africa* (Madison: University of Wisconsin Press, 1993), 43-66.

'Beyond Urban Bias': Special Issue, *JDS*, 29, 4 (1993).

Krishna Bharadwaj, 'Production Conditions in Indian Agriculture' in Harriss, *Rural Development*,

H. Bienen, 'Oil Revenue and Policy Choice in Nigeria', *World Bank Staff Working Papers* N<sup>o</sup> 592 (Washington, D.C.: World Bank, 1983).

-----, *Political Conflict and Economic Change in Nigeria* (1985).

Manfred Bienenfeld, 'Dependency Theory and the Political Economy of Africa's Crisis', *ROAPE*, 43 (1988), 68-87.

-----, 'Analyzing the Politics of African State Policy: Some thoughts on Robert Bates' Work', *IDS Bulletin*, 17, 1 (1986), 5-11.

Hans P. Binswanger, 'Agricultural Mechanisation: A Comparative Historical Perspective', *World Bank Staff Working Papers* N<sup>o</sup> 673 (Washington, D.C.: IBRD, 1985). Also in *WBRO*, 1, 1 (1986), 27-56.

----- and Prabhu Pingali, 'Technological Priorities for Farming in Sub-Saharan Africa', *JID*, 1, 1 (1989), 46-65.

----- and Joachim von Braun, 'Technological Change and Commercialization in Agriculture', *WBRO*, 6, 1 (1991), 57-80.

A. C. Bird, 'The Land Issue in Large Scale Irrigation Projects: Some Problems from Northern Nigeria', in Adams and Grove (eds.), *Irrigation in Tropical Africa* (1993), 75-85.

Lars-Erik Birgegård, 'A Review of Experiences with Integrated Rural Development', *MPD*, IV, 1 (1988), 4-27.

Paul Bohannon and George Dalton, 'Introduction', in Bohannon and Dalton (eds.), *Markets in Africa* (Evanston: Northwestern University Press, 1962), 1-26.

A. A. Bolade and I. A. Adalemo, 'Internal Colonialism in the National Development Process: Some Conceptual and Theoretical Issues', in NES, *Nigerian Economy*, 41-49.

Zuwaqhu Bonat and Yahaya Abdullahi, 'The World Bank, IMF and Nigeria's Agricultural and Rural Economy', in Bade Onimode (ed.), *The IMF, the World Bank and the African Debt*, Vol. 2 (1989), 153-176.

Ester Boserup, *The Conditions of Agricultural Change* (New York: Aldine, 1965).

Michael Bratton, 'The Politics of Government-NGO Relations in Africa', *WD*, 17, 4 (1989), 569-587.

Francesca Bray, *The Rice Economies: Technology and Development in Asian Societies* (Oxford: Basil Blackwell, 1986).

Robert Brenner, 'The Origins of Capitalist Development: A Critique of neo-Smithian Marxism', *NLR*, 104 (1977), 25-93.

-----, 'The Social Basis of Economic Development', in John Roemer (ed.), *Analytical Marxism* (Cambridge: Cambridge University Press, 1986), 23-53.

E. A. Brett, 'State Power and Economic Inefficiency: Explaining Political Failure in Africa', *IDS Bulletin*, 17, 1 (1986), 22-29.

- H. C. Brookfield, 'On the Environment as Perceived', *Progress in Geography*, 1 (1969), 53-80.
- D. H. Brown, 'The Cultivation of Yams', *TA*, VIII, 8 (1931), 201-206 and VIII, 9 (1931), 231-236.
- John W. Bruce, 'Do Indigenous Tenure Systems Constrain Agricultural Development?', in Thomas J. Bassett and Donald E. Crummey (eds.), *Land in African Agrarian Systems* (Madison: University of Wisconsin Press, 1993), 35-56.
- K. M. Buchanan and J. C. Pugh, *Land and People in Nigeria* (1955).
- Stephen G. Bunker, *Peasants Against the State* (Urbana and Chicago: University of Illinois Press, 1987).
- T. J. Byres, 'Of Neo-Populist Pipe Dreams: Daedalus in the Third World and the Myth of Urban Bias', *JPS*, 6, 2 (1979).
- , 'The Green Revolution's Second Phase', *JPS*, 7, 2 (1980), 245-250.
- Thomas Callaghy, 'The State as Lame Leviathan: The Patrimonial Administrative State in Africa' in Zarki Ergas, *The African State*, 87-116.
- , 'Toward State Capability and Embedded Liberalism in the Third World: Lessons for Adjustment', in Joan M. Nelson (ed.), *Fragile Coalitions: The Politics of Economic Adjustment* (New Brunswick and Oxford: Transaction Books, 1989), 115-138.
- , 'Lost Between State and Market: The Politics of Economic Adjustment in Ghana, Zambia, and Nigeria', in Joan Nelson, *Economic Crisis and Policy Choice* (1990), 257-319.
- and John Ravenhill (eds.), *Hemmed In: Responses to Africa's Economic Decline* (NY: Columbia University Press, 1993).
- Robert Carlson, 'Co-operative Extension: A Historical Assessment', *Journal of Extension*, VII, 3 (1970).
- Richard E. Caves, "'Vent for Surplus" Models of Trade and Growth', in Robert E. Baldwin *et al*, *Trade, Growth, and the Balance of Payments: Essays in Honor of Gottfried Haberler* (Chicago and Amsterdam: Rand McNally and North-Holland Publishing, 1965).
- Michel Cépède, 'The Green Revolution and Employment', *ILR*, 105, 1 (1972), 1-8.
- Michael Cernea, 'Sociological Dimensions of Extension Organisation: The Introduction of the T&V System in India', in Crouch and Chamala, *Extension Education*, 221-235.
- , 'Sociological Knowledge for Development Projects', in Cernea (ed.), *Putting People First*, 3-21.
- (ed.), *Putting People First: Sociological Variables in Rural Development* (New York: OUP, 1991).
- S. Chakravarty, 'Cost-Benefit Analysis', in John Eatwell, M. Milgate and P. Newman (eds.), *The New Palgrave Dictionary of Development* (Macmillan), 76-84.
- Robert Chambers, *Rural Development: Putting the Last First* (1983).
- , 'The State and Rural Development and an Agenda for the 1990s' in Colclough and Manor, *States or Markets?*, 260-278.
- , Arnold Pacey, and Lori Ann Thrupp (eds.), *Farmer First* (1989).

Manabendu Chattopadhyay, 'Transformations of Labour Use in Indian Agriculture', *Cambridge Journal of Economics*, 8 (1984), 289-296.

A. N. Chidebelu, G. W. Ames, and E. E. Brown, 'Land Use in Nigeria', *FP*, 5, 4 (1980), 306-310.

Leif E. Christoffersen, 'The Bank and Rural Poverty', *FaD*, 15, 4 (1978), 18-22.

Carlo M. Cipolla, *Between History and Economics*, Trans. Christopher Woodall (Oxford: Basil Blackwell, 1991).

Robert J. Clarke, 'Some Problems in the Conceptualization of Non-Capitalist Relations of Production', *Critique of Anthropology*, 2, 8 (1977).

-----, 'Peasantization and Landholding: A Nigerian Case Study', in Martin A. Klein (ed.), *Peasants in Africa* (1980), 177-219.

-----, 'Households and the Political Economy of Small-Scale Cash Crop Production in Southwestern Nigeria', *Africa*, 51, 4 (1981), 807-823.

Eric Clayton, 'Research Methodology and Peasant Agriculture', *Farm Economist*, VIII, 6 (1956), 27-32.

-----, *Agrarian Development in Peasant Economies: Some Lessons from Kenya* (Oxford: Pergamon, 1964).

-----, 'Mechanisation and Employment in East African Agriculture', *ILR*, 105, 4 (1972), 309-334. Also in ILO, *Mechanisation*, 19-44.

-----, 'A Note on Farm Mechanisation and Employment in Developing Countries', *ILR*, 110, 1 (1974), 57-62.

-----, *Agriculture, Poverty and Freedom in Developing Countries* (1983).

H. M. Cleaver, Jr., 'The Contradictions of the Green Revolution', *AER*, LXII, 2 (1972), 177-86.

Kevin M. Cleaver, 'The Use of Price Policy to Stimulate Agricultural Growth in Sub-Saharan Africa', in Colleen Roberts (ed.), *Trade, Aid, and Policy Reform, Proceedings of the Eighth Agriculture Sector Symposium*, 81-91.

Lionel Cliffe, 'The Debate on African Peasantries', *DaC*, 18, 2 (1987).

Paul Clough and Gavin Williams, 'Decoding Berg: The World Bank in Rural Northern Nigeria', in Watts, *State, Oil, and Agriculture*, 168-201.

Robert E. Clute, 'The Role of Agriculture in African Development', *ASR*, XXV, 4 (1982), 1-20.

John M. Cohen, 'Effects of Green Revolution Strategies on Tenants and Small-scale Landowners in the Chilalo Region of Ethiopia', *JDA*, 9, 3 (1975), 335-358.

-----, 'Integrated Rural Development: Clearing Out the Underbrush', *Sociologia Ruralis*, XX, 3 (1980), 195-212.

Ronald Cohen, 'Introduction: Guidance and Misguidance in Africa's Food Production', in Cohen, *Satisfying Africa's Food Needs*, 1-30.

-----, 'Adversity and Transformation: The Nigerian Light at the End of the Tunnel', in Cohen, *Satisfying Africa's Food Needs*, 209-237.

----- (ed.), *Satisfying Africa's Food Needs: Food Production and Commercialization in African Agriculture* (1988).

C. Colclough, 'Competing Paradigms in the Debate about Agricultural Pricing Policy', *IDS Bulletin*, 16, 3 (1985), 39-46.

-----, 'Structuralism versus Neo-liberalism: An Introduction' in Colclough and Manor, *States or Markets* (1991), 1-25.

----- and James Manor (eds.), *States or Markets? Neo-liberalism and the Development Policy Debate* (Oxford: Clarendon Press, 1991).

Paul Collier, 'Macroeconomic Effects of Oil on Poverty in Nigeria', *IDS Bulletin*, 18, 1 (1987), 55-60.

-----, 'Oil Shocks and Food Security in Nigeria', *ILR*, 127, 6 (1988), 761-782.

-----, 'Public Policy and the Development of Indigenous Capitalism', *JCCP*, 15, 2 (1977).

----- (ed.), *Administration for Development in Nigeria* (Lagos: African Educational Publishers, 1980).

-----, 'Africa and the Study of Economics', in Robert Bates, V. Y. Mudimbe, and Jean O'Barr (eds.), *Africa and the Disciplines: The Contributions of Research in Africa to the Social Sciences and Humanities* (1993), 58-82.

Simon Commander (ed.), *Structural Adjustment and Agriculture: Theory and Practice in Africa and Latin America* (1989).

Diana Conyers, 'Introduction', *MPD*, IV, 1 (1988), 1-3.

----- and Dennis M. Warren, 'The Role of Integrated Rural Development Projects in Developing Local Institutional Capacity', *MPD*, IV, 1 (1988), 28-41.

-----, Paul Mosley and Dennis M. Warren (eds.), 'Integrated Rural Development Projects', Special Issue, *MPD*, IV, 1 (1988).

Richard C. Cook, 'Farmers and the State', in Douglas Rimmer (ed.), *Rural Transformation in Tropical Africa* (1988), 116-139.

Cynthia C. Cook, 'Social Analysis in Rural Road Projects', in Cernea, *Putting People First*, 397-427.

Frederick Cooper, 'Africa and the World Economy', in F. Cooper et al, *Confronting Historical Paradigms: Peasants, Labour, and the Capitalist World System in Africa and Latin America* (Madison: University of Wisconsin Press, 1993), 84-201. Originally in *ASR*, 24, 2/3 (1981), 1-86.

Jean Copans, 'African Studies: A Periodization', in Peter W. C. Gutkind and Peter Waterman (eds.), *African Social Studies*, (1977), 19-31.

J. T. Coppock, 'Tobacco Cultivation in Nigeria', *Erdkunde*, XIX, 4 (1965), 297-306.

Catherine Coquery-Vidrovitch, *Africa: Endurance and Change South of the Sahara*, trans. David Maisel (Berkeley: University of California Press, 1988).

W. B. H. Court, 'Economic History' in H. P. R. Finberg (ed.), *Approaches to History* (1962), 17-50.

Bruce R. Crouch and Shankariah Chamala (eds.), *Extension Education and Rural Development*, Vol. 2

(Chichester: John Wiley, 1981).

Luis Crouch and Alain de Janvry, 'The Class Basis of Agricultural Growth', *FP*, 5, 1 (Feb. 1980), 3-13.

Bruce Cumings, 'Interest and Ideology in the Study of Agrarian Politics', *Politics and Society*, 10, 4 (1981), 467-495.

Kenneth R. Curtis, 'Cooperation and Cooptation: The Struggle for Market Control in the Bukoba District of Colonial Tanganyika', *IJAHS*, 25, 3 (1992), 505-538.

George Dalton, 'Economic Theory and Primitive Society', *American Anthropologist*, 63 (1961), 1-25.

-----, 'Traditional Production in Primitive African Economies', *QJE*, LXXVI, 3 (1962), 360-378.

-----, 'The Development of Subsistence and Peasant Economies in Africa', *ISSJ*, 16, 3 (1964), 378-389.

-----, 'Review of *An Economic History of West Africa* by A. G. Hopkins', *AEH*, 1 (1976), 43-50.

Ukandi Damachi and Hans Dieter Seibel (eds.), *Social Change and Economic Development in Nigeria* (New York: Praeger, 1973).

Francis K. Danquah, 'Rural Discontent and Decolonisation in Ghana, 1945-51', *Agricultural History*, 68, 1 (1994), 1-19.

Mrinal Datta-Chaudhuri, 'Market Failure and Government Failure', *JEP*, 4, 3 (1990), 25-39.

Basil Davidson, *The Black Man's Burden: Africa and the Curse of the Nation-State* (1992).

John Dearlove, 'Economists on the State', *IDS Bulletin*, 18, 3 (1987), 5-11.

Christopher L. Delgado, 'Setting Priorities for Promoting African Food Production', in Cohen, *Satisfying Africa's Food Needs*, 31-46.

R. E. Dennett, 'Agricultural Progress in Nigeria', *JAS*, XVIII, LXXII (1919), 266-289.

Jonathan Derrick, 'The Green Peril', *West Africa*, 21 April 1986, 829-831.

A. E. Deutsch, 'Tractor Dilemma for the Developing Countries', *WC*, 24, 5 (1972), 234-236.

I. Diaku, 'A Capital Surplus Illusion- The Nigerian Case Revisited', *NJESS*, 14, 1, (1972).

John L. Dillon and J. R. Anderson, 'Allocative Efficiency, Traditional Agriculture, and Risk', *AJAE*, 53, 1 (1971).

Barbara Dinham and Colin Hines, *Agribusiness in Africa: A Study of the Impact of Big Business on Africa's Food and Agricultural Production* (1983).

Jan Kees van Donge, 'Politicians, Bureaucrats and Farmers: A Zambian Case Study', *JDS*, 19, 1 (1982), 88-107.

Paul Dorosh and Bola Akanji, 'Impacts of Exchange Rate Changes on the Cocoa-Food Crop Farming Systems of Southwest Nigeria', mimeo (Ibadan: International Institute for Tropical Agriculture, 1988).

I. H. van den Driesen, 'Patterns of Land Holding and Land Distribution in Ife Div of WN.', *Africa* XLI,

1 (1971), 42-52.

Brian C. D'Silva and M. Rafique Raza, 'Integrated Rural Development in Nigeria: The Funtua Project', *FP*, 5, 4 (1980), 282-297.

-----, 'Equity Considerations in Planning and Implementing Rural Development Projects in Nigeria: An Evaluation of the Funtua Project', in Bruce L. Greenshields and M. A. Bellamy (eds.), *Rural Development: Growth and Inequality* (1983), 101-106.

G. C. Dudgeon, *The Agricultural and Forest Products of British West Africa* (2nd. ed. 1922).

B. J. Dudley, *Introduction to Nigerian Government and Politics* (1982).

Raymond E. Dumett and Lawrence J. Brainard (ed.), *Problems of Rural Development: Case Studies and Multi-Disciplinary Perspectives* (Leiden: E. J. Brill, 1975).

Rene Dumount, *False Start in Africa* (1982 ed.).

R. Ayo Dunmoye, 'The Political Economy of Agricultural Production in Africa: State, Capital and the Peasantry', *PS*, 16, 2 (1989), 87-105.

Piotr Dutkiewicz and Gavin Williams, 'All the King's Horses and All the King's Men couldn't put Humpty Dumpty Together Again', *IDS Bulletin*, 18, 3 (1987), 39-44.

L. A. Ega, T. K. Atala, and J.M. Baba (eds.) *Developing Rural Nigeria* (Nigerian Rural Sociology Association, 1989).

Cyril Ehrlich, 'Building and Caretaking: Economic Policy in British Tropical Africa, 1810-1960', *EHR*, 2nd ser., XXVI, 4 (1973), 649-667.

C. K. Eicher, 'The Dynamics of Long-Term Agricultural Development in Nigeria', *JFE*, 49, 5 (1967). Also in *Growth and Development*, 6-15.

----- (ed.), *Growth and Development of the Nigerian Economy* (East Lansing: Michigan State University Press, 1970).

-----, 'Zimbabwe's Maize-Based Green Revolution: Preconditions for Replication', *WD*, 23, 5 (1995), 805-818.

----- and Lawrence Witt, 'Introduction', in idem, *Agriculture*, 1-5,

----- and Lawrence Witt, 'Some Aspects of the Process of Change in idem, *Agriculture*, 203-213.

----- and Lawrence Witt (eds.), *Agriculture in Economic Development* (NY: McGraw Hill, 1964).

P. Ekeh, 'Colonialism and the Two Publics in Africa: A Theoretical Statement', *CSSH*, 17, 1 (1975), 97-115.

-----, *Colonialism and Social Structure*, Inaugural Lecture, University of Ibadan (Ibadan: IUP, 1983).

-----, 'Development Theory and the African Predicament', *AD*, XI, 4 (1986), 1-40.

E. E. Ekong, 'The Role of the World Bank in Nigerian Agricultural Policy', *AD*, XVII, 3 (1992), 65-98.



----- and L. Sokoya, 'Success and Failure in Community Development Efforts: A Study of Two Cases in Southwestern Nigeria', *CDJ*, 17, 3 (1982), 217-224.

R. O. Ekundare, *An Economic History of Nigeria 1860-1960* (1973).

C. M. Elliott, 'Agriculture and Economic Development in Africa: Theory and Experience 1880-1914', in E. L. Jones and S. J. Woolf (eds.), *Agrarian Change and Economic Development: The Historical Problems* (1969), 123-150.

Charles J. Erasmus, 'Culture Structure and Process: The Occurrence and Disappearance of Reciprocal Farm Labour', *Southwestern Journal of Anthropology*, 12, 4 (1956), 444-469.

Zarki Ergas, 'The State and Economic Deterioration: The Tanzanian Case', *JCCP*, XX, 3 (1982), 286-308.

----- (ed.), *The African State in Transition* (Basingstoke: Macmillan, 1987).

S. M. Essang, 'Investment Pattern of LBAs in Nigeria: A Study of Enterprise Diversification and Entrepreneurship in an Underdeveloped Economy', *NJESS*, XVI, 3 (1974), 403-417.

P. Evans, 'Predatory, Developmental and Other Apparatuses: A Comparative Political Economy Perspective on the Third World State', *Sociological Forum*, 4, 4 (1989), 561-87.

-----, 'The State as Problem and Solution: Predation, Embedded Autonomy, and Structural Change', in Stephen Haggard and Robert R. Kaufman (eds.), *The Politics of Economic Adjustment: International Constraints, Distributive Conflicts, and the State* (Princeton: Princeton University Press, 1992), 139-181.

G. O. Evbuomwan, 'A Review of the Federal Government Fertilizer Subsidy Scheme in Nigeria', *EFR*, 29, 3 (1991), 256-278.

J. A. Eweka, V. E. Bello-Osagie, and S. O. Olayide, *Village Development: Food Basket Management Strategy* (Ibadan: CARD, 1979).

D. L. Eyoh, 'Structures of Intermediation and Change in African Agriculture: A Nigerian Case Study', *ASR*, 35, 1 (1992), 17-39.

-----, 'Reforming Peasant Production in Africa: Power and Technological Change in Two Nigerian Villages', *DaC*, 23, 2 (1992), 37-66.

F. Ezeala-Harrison, 'From Structural Maladjustment to Structural Re-adjustment in Nigeria', *Scandinavian Journal of Development Alternatives*, 12, 1 (1993), 15-31.

Yakub L. Fabiyi, 'Land Policy in Nigeria: Case Studies of the Implementation of the Land Use Decree (Act) in Ogun, Ondo and Oyo States of Nigeria', *Odu*, 19 (1979), 144-156.

N. A. Fadipe, *The Sociology of the Yorubas*, ed. F. O. and O. O. Okediji (Ibadan: IUP, 1970).

Toyin Falola, *The Political Economy of a Pre-Colonial State: Ibadan, 1830-1900* (Ile-Ife: University of Ife Press, 1984).

-----, 'Power Relations and Social Interactions among Ibadan Slaves', *AEH*, 16 (1987), 95-114.

-----, 'The Yoruba Toll System: its Operation and Abolition', *JAH*, 30 (1989), 69-88.

-----, 'The Yoruba Caravan System of the Nineteenth Century', *IJAHS*, 24, 1 (1991), 111-132.

Abiodun O. Falusi, 'Agricultural Development: Operation Feed the Nation' in Oyeleye Oyediran (ed.), *Survey of Nigerian Affairs 1976-77* (Lagos: NIIA, 1981), 55-68.

O. A. Famoriyo and P. B. Imoudu, 'A Critical Evaluation of Agricultural Credit Financing in Nigeria', *ARMFB*, 1 (1988), 37-53.

Segun Famoriyo, 'Principles of Rural Tenure Systems in Nigeria', *NGJ*, 20, 1 (1977), 45-58.

-----, 'Land Ownership and Control in Nigeria: Implications of the Land Use Act for Nigeria's Political Economy', in NES, *Nigerian Economy* (1986), 126-141.

A. Faniran and O. Areola, 'The Concept of Resources and Utilisation Among Local Communities in Western Nigeria', *AE*, II, 3 (1976), 39-51.

Eleanor R. Fapohunda, 'The Nuclear Household Model in Nigerian Public and Private Sector Policy: Colonial Legacy and Socio-Political Implications', *DaC*, 18, 2 (1987), 281-294.

O. O. Fasoranti, 'Agriculture and Rural Development: Lessons from the Ekiti-Akoko Agricultural Development Project (ADP) Experience', in S. A. Olomola and A. C. Nwosu (eds.), *Rural Development Strategies in Nigeria* (Nigerian Rural Sociological Association, 1992), 81-96.

Robert Faton Jr., 'The State of African Studies and Studies of the African State: The Theoretical Softness of the "Soft State"', *JAAS*, XXIV, 3-4 (1989), 170-187.

O. T. Faulkner, 'Aims and Objects of the Agriculture Department in Nigeria', *First Annual Bulletin of the Agriculture Department* (1922), 1-14.

-----, 'Experiments on Ridged Cultivation in Tanganyika and Nigeria', *TA*, XXI, 9 (1944), 177-178.

----- and J. R. Mackie, *West African Agriculture* (Cambridge: CUP, 1933).

J. Faye, T. Gallali and R. Billaz, 'Peasant Agronomy: A Challenge to Planners's Models?', *AE*, II, 4 and III, 1 (1977), 37-46.

Ernest Feder, 'McNamara's Little Green Revolution: World Bank Scheme for the Self-Liquidation of the Third World Peasantry', *Economic and Political Weekly*, 3, 3 (1976), 532-541. Published as 'The New World Bank Programme for the Self-Liquidation of the Third World Peasantry', *Journal of Peasant Studies*, 3, 3 (1976), 343-354.

-----, 'Capitalism's Last-Ditch Effort to Save Underdeveloped Agricultures: International Agribusiness, the World Bank and the Rural Poor', *JCA*, 7, 1 (1977), 56-78.

-----, 'Regeneration and Degeneration of the Peasants: Three Views about the Destruction of the Countryside', *Social Scientist*, 7, 7 (1979), 3-41.

Gershon Feder and Raymond Noronha, 'Land Rights Systems and Agricultural Development in Sub-Saharan Africa', *WBRO*, 2, 2 (1987), 143-169.

David Feeny, *The Political Economy of Productivity: Thai Agricultural Development, 1880-1975* (Vancouver: University of British Columbia Press, 1982).

D. K. Fieldhouse, *Black Africa 1945-80: Economic Development and Arrested Development* (1986).

M. O. Filani (1981), 'Nigeria: The Need to Modify the Centre-Down Development Planning', in Stohr and Taylor, *Development From Above or Below?* (1981).

- John Flint, 'The Failure of Planned Decolonisation in British Africa', *AA*, 82 (1983).
- Robert W. Fogel and Geoffery R. Elton, *Which Road to the Past?* (New Haven: Yale University Press, 1983).
- Adekunle Folayan, *Agriculture and Economic Development in Nigeria* (New York: Vantage Press, 1983).
- Darryl Forde and Richenda Scott, *The Native Economies of Nigeria* (1946).
- Tom Forrest, 'The Economic Context of Operation Feed the Nation', *Savanna*, 6, 1 (1977).
- , 'Agricultural Policies in Nigeria, 1900-78', in Heyer, Roberts and Williams, *Rural Development*,  
 -----, *Politics and Economic Development in Nigeria* (Boulder: Westview, 1993).
- , *The Advance of African Capital: The Growth of Nigerian Private Enterprise* (Edinburgh: Edinburgh University Press, 1994).
- George M. Foster, 'Peasant Society and the Image of the Limited Good' in Jack Potter, May N. Diaz and George Foster (eds.), *Peasant Society* (Boston: Little Brown, 1967), 300-323.
- A. Foster-Carter, 'The Modes of Production Debate', *NLR*, 107 (1978), 47-79.
- Paul Francis, '"For the Use and Common Benefit of all Nigerians": Consequences of the 1978 Land Nationalization', *Africa*, 54, 3 (1984), 3-28.
- W. M. Freund and R. Shenton, 'Vent-for-Surplus Theory and the Economic History of West Africa', *Savanna*, 6, 2 (1977), 191-199.
- James S. Frideres et. al., 'From Peasants to Capitalists', *CDJ*, 28, 2 (1993), 129-140.
- Edward Friedman, 'What Do Peasants Really Want? An Exploration of Theoretical Categories and Action Consequences', *EDCC*, 41, 1 (1992), 197-205.
- Jonathan H. Frimpong-Ansah, *The Vampire State in Africa: the Political Economy of Decline in Ghana* (Trenton: Africa World Press, 1992).
- Tom Gabriel, *The Human Factor in Rural Development* (1991).
- Harry A. Gailey, *Lugard and the Abeokuta Uprising: The Demise of Egba Independence* (1982).
- R. Galletti, K. D. S. Baldwin and I. O. Dina, *Nigerian Cocoa Farmers: An Economic Survey of Yoruba Cocoa Farming Families* (1956).
- Juan Gaviria, Vishva Bindlish, and Uma Lele, 'The Rural Road Question and Nigeria's Agricultural Development', *MADIA Discussion Paper 10* (Washington D.C.: World Bank, 1989).
- Clifford Geertz, 'The Rotating Credit Association: A "Middle Rung" in Development', *EDCC*, X, 3 (1962), 241-263.
- , *Agricultural Involution* (Berkeley and Los Angeles: University of California Press, 1963).
- Dominique Gentil, 'A Few Questions on the Training and Visit Method', in Roberts (ed.), *Agricultural Extension in Africa*, 25-29.

Alexander Gerschenkron, *Economic Backwardness in Historical Perspective* (Cambridge, MA: Belknap Press, 1962).

Jane Girdner *et. al.*, 'Ghana's Agricultural Food Policy: Operation Feed Yourself', *FP*, 5, 1 (1980), 14-25.

Gerard J. Gill, 'Mechanised Land Preparation, Productivity and Employment in Bangladesh', *JDS*, 19, 3 (1983), 329-348.

Susan George, *Ill Fares the Land: Essays on Food, Hunger, and Power* (Washington, D. C.: Institute for Policy Studies, 1984).

Peter Gibbon, 'A Failed Agenda? African Agriculture Under Structural Adjustment with Special Reference to Kenya and Ghana', *JPS*, 20, 1 (1992), 50-96.

B. Glaeser (ed.), *The Green Revolution Revisited: Critique and Alternatives* (1987).

A. D. Goddard, 'Town-Farm Relationship in Yorubaland: A Case Study of Oyo', *Africa*, XXXV, 1 (Jan. 1965), 21-29.

Stephan J. Goetz, 'Interlinked Markets and the Cash Crop-Food Crop Debate in Land-Abundant Tropical Agriculture', *EDCC*, 41, 2 (1993), 343-361.

Carl H. Gotsch, 'Tractor Mechanisation and Rural Development in Pakistan', *ILR*, 107, 2 (1973), 133-166. Also in ILO, *Mechanisation*, 45-79.

D. Gow and J. Vansant, 'Beyond the Rhetoric of Rural Development Participation: How Can it be Done?', *WD*, 11, 5 (1983), 427-45.

Richard Grabowski, 'The Agrarian Roots of Economic Expansion', *PS*, 19, 2 (1992), 93-110.

-----, 'The State and Economic Development', *SCID*, 29, 1 (1994), 3-17.

-----, 'The Successful Developmental State: Where Does it Come From?', *WD*, 22, 3 (1994), 413-422.

J. Grant, 'Development: An End of the Trickle Down?', *Foreign Policy*, 12 (1973), 43-65.

R. H. Green and S. H. Hymer, 'Cocoa in the Gold Coast: A Study of Relations between African Farmers and Agricultural Experts', *JEH*, XXVI, 3 (1966), 299-319.

Thomas R. De Gregori, 'Review of *An Economic History in West Africa* by A. G. Hopkins', *Technology and Culture*, 15, 3 (1974), 514-516.

-----, 'Queries on Economic Rationality', *Technology and Culture*, 16, 3 (1975), 460-461.

Keith Griffin, *The Political Economy of Agrarian Change: An Essay on the Green Revolution* (2nd ed. 1979).

Hans Gsänger, *The Future of Rural Development: Between the Project Approach and Sectoral Programme Design* (1993).

Rolf Güsten, *Studies in the Staple Food Economy of Western Nigeria* (München: Welforum Verlag, 1968).

P. C. W. Gutkind and I. Wallerstein, (eds.), *Political Economy of Contemporary of Africa* (Beverly Hill: University of California Press, 1976).

Jane Guyer, 'Food, Cocoa, and the Division of Labour by Sex in Two West African Societies', *CSSH*, 22, 3 (1980), 355-373.

-----, 'British, Colonial and Post-Colonial Food Regulation, with Reference to Nigeria: An Essay in Formal Anthropology', *Working Papers in African Studies* N<sup>o</sup> 158 (Boston: African Studies Centre, Boston University, 1991).

-----, 'Representation Without Taxation: An Essay on Democracy in Rural Nigeria, 1952-1990', *ASR*, 35, 1 (1992), 41-79.

-----, 'Small Change: Individual Farmwork and Collective Life in a Western Nigerian Savanna Town, 1969-88', *Africa*, 62, 4 (1992), 465-489.

-----, 'Introduction', *DaC*, 18, 2 (1987), 197-214.

----- and Pauline E. Peters (eds.), 'Conceptualizing the Household: Issues of Theory and Policy in Africa', Special Issue, *DaC*, 18, 2 (1987).

E. F. G. Haig, 'Co-operative Agricultural Settlements', *FaF*, VI, 1 (1945), 36-39.

-----, 'Co-operatives in Nigeria', *JRAS*, 49 (1949-50), 41-50.

Mohammed S. Halfani and Jonathan Barker, 'Agribusiness and Agrarian Change', in J. Barker (ed.), *The Politics of Agriculture in Tropical Africa* (Beverly Hills: Sage, 1984), 35-63.

Roland Hallgren, *The Good Things of Life: A Study of the Religious Culture of the Yoruba People* (1988).

John H. Hamer, 'Preconditions and Limits in the Formation of Associations: The Self-Help and Cooperative Movement in Africa', *ASR*, 24, 1 (1981), 113-132.

C. P. Hampson, 'Economics of Weed Control with Special Reference to MCPA', *WC*, 8, 6 (1956), 223-226.

W. K. Hancock, *Survey of Commonwealth Affairs*, Vol. II (1942).

Mahbub ul Haq, 'Changing Emphasis of the Bank's Lending Policies', *FaD*, 15, 2 (1978), 12-14.

John Harriss (ed.), *Rural Development: Theories of Peasant Economy and Agrarian Change* (1982).

Keith Hart, *The Political Economy of West African Agriculture* (Cambridge: CUP, 1987).

Yujiro Hayami and Vernon W. Ruttan, 'Growth and Equity in Agricultural Development', in idem, *Agricultural Development: An International Perspective* (Baltimore and London: John Hopkins University Press, 1985), 329-366.

D. Healey, 'Development Policy: New Thinking about an Interpretation', *JEL*, X, 3 (1972), 757-97.

Robert M. Hecht, 'The Ivory Coast Economic 'Miracle': What Benefits for Peasant Farmers?', *JMAS*, 21, 1 (1983), 25-53.

G. K. Helleiner, 'The Fiscal Role of Marketing Boards in Nigeria's Economic Development', *EcJ*, LXXIV, 295 (1964), 582-610.

-----, 'The Eastern Nigeria Development Corporation: a Study in Sources and Uses of Public Development

Funds, 1949-1962', *NJESS*, 6, 1 (1964), 98-123.

-----, 'A Wide-Ranging Development Institution: The Northern Nigeria Development Corporation, 1949-62', *NJESS*, 6, 2 (1964), 239-257.

-----, 'Typology in Development Theory: The Land Surplus Economy', *FRIS*, 6, 2 (1966), 181-194.

-----, *Peasant Agriculture, Government, and Economic Growth in Nigeria* (Homewood, Ill.: Richard D. Irvin, Inc. 1966).

-----, 'Smallholder Decision Making: Tropical African Evidence', in L. G. Reynolds (ed.), *Agriculture in Development Theory* (New Haven: Yale University Press, 1975), 27-52.

-----, 'Lessons for Sub-Saharan Africa from Latin American Experiences', *ADR*, 1, 1 (1989), 3-20.

-----, 'Structural Adjustment and Long-term Development in Sub-Saharan Africa', in Francis Stewart, Sanjaya Lall and Samuel Wangwe (eds.), *Alternative Development Strategies in Sub-Saharan Africa* (1992), 48-78.

Dieter Helm (ed.), *The Economic Borders of the State* (Oxford: Oxford University Press, 1989).

Jeffrey Herbst, 'The Politics of Sustained Agricultural Reform in Africa', in Callaghy and Ravenhill, *Hemmed In*, 332-356.

J. Heyer, Pepe Roberts and G. Williams (eds.), *Rural Development in Tropical Africa* (1981).

Peter E. Hildebrand, 'On the Non-Neutrality of Scale of Agricultural Research', in Hildebrand (ed.), *Perspectives on Farming Systems Research and Extension* (Boulder: Colorado: Lynne Rienner, 1986), 59-69.

----- and Edgar G. Luna, 'Unforeseen Consequences of Introducing New Technologies in Traditional Agriculture', in Hildebrand, *Perspectives on Farming Systems*, 69-74.

Polly Hill, *The Migrant Cocoa Farmers of Southern Ghana: A Study in Rural Capitalism* (Cambridge: Cambridge University Press, 1963).

-----, 'Ghanaian Capitalist Cocoa-Farmers', *Ghanaian Bulletin of Agricultural Economics*, II, I (1962).

-----, 'A Plea for Indigenous Economics: The West African Example', *EDCC*, 15, 1 (1966), 10-20.

-----, *Rural Capitalism in West Africa* (Cambridge: CUP, 1970).

-----, *Development Economics on Trial: the Anthropological Case for a Prosecution* (Cambridge: CUP, 1986).

A. Hinderer, *Seventeen Years in the Yoruba Country* (3rd. ed. 1873).

B. Hindess (ed.), *Sociological Theories of the Economy* (1977).

----- and P. Hirst, *Pre-Capitalist Modes of Production* (1975).

-----, *Mode of Production and Social Formation* (1977).

Albert O. Hirschman, *Exit, Voice and Loyalty* (Cambridge, Mass.: Harvard University Press, 1970).

- , 'The Case Against Doing One Thing at a Time', *WD*, 18, 8 (1990), 1119-1122.
- , *Development Projects Observed* (Washington: Brookings Institution, 1995).
- B. W. Hodder, 'The Yoruba Market', in Paul Bohannon and George Dalton (eds.), *Markets in Africa* (Evanston: Northwestern University Press, 1968).
- P. C. Hodson, 'The Economy of the African Peasant', *FaF*, VI, 1 (1945), 52-54.
- Rolph van der Hoeven and Fred van der Kraaij (ed.), *Structural Adjustment and Beyond in Sub-Saharan Africa: Research and Policy Issues* (1994).
- Jan S. Hogendorn, 'The "Vent for Surplus" Model and African Cash Agriculture to 1914', *Savanna*, 5, 1 (1976), 15-28.
- , 'Vent-for-Surplus Theory: A Reply', *Savanna*, 6, 2 (1977), 196-199.
- Frank Holmquist, 'Defending Peasant Political Space in Independent Africa', *CJAS*, 14, 1 (1980), 157-167.
- , 'Self-Help: The State and Peasant Leverage in Kenya', *Africa*, 54, 3 (1984), 72-91.
- R. Holton, 'Marxist Theories of Social Change and the Transition from Feudalism to Capitalism', *Theory and Society*, 10 (1981), 833-867.
- , *The Transition from Feudalism to Capitalism* (1984).
- G. Honadle and J. VanSant, *Implementation for Sustainability: Lessons from Integrated Rural Development* (1985).
- and Jay K. Rosengard, 'Putting 'Projectized' Development in Perspective', *PAAD*, 3, 4 (1983), 299-305.
- A. G. Hopkins, 'Economic Aspects of Political Movements in Nigeria and in the Gold Coast', *JAH*, VII, I (1966), 133-152.
- , 'The Currency Revolution in SW Nigeria in the Late 19th Century', *JHSN*, 3 (1966), 471-483.
- , 'Economic Imperialism in West Africa: Lagos, 1889-92', *EHR*, 2nd ser. XXI, 3 (1968), 580-606.
- , 'Economic Imperialism in West Africa: A Rejoinder', *EHR*, 2nd ser., XXV, 3 (1972), 307-312.
- , *An Economic History of West Africa* (1973).
- , 'Rationality and Technology in African History', *Technology and Culture*, 16, 3 (1975), 462-465.
- , 'A Comment', in *AEH*, 2 (1976), 81-83.
- , 'Innovation in a Colonial Economy: African Origins of Nigerian Cocoa-Farming Industry, 1880-1920', in C. Dewey and Hopkins (eds.), *The Imperial Impact* (1978), 83-96.
- , 'Africa's Age of Improvement', *History in Africa*, 7 (1980), 141-160.
- , 'The World Bank in Africa: Historical Reflections on the African Present', *WD*, 14, 12 (1986), 1473-1487.

-----, 'African Entrepreneurship: An Essay on the Relevance of History to Development Economics', *Geneve Afrique*, 26, 2 (1988), 7-28.

-----, 'African Economic History: the First Twenty-Five Years', *JAH*, 30, 1 (1989), 160-162.

W. David Hopper, 'Allocative Efficiency in a Traditional Indian Agriculture', *JFE*, 47, 3 (1965), 611-624.

John Howell, 'Public Investment in Africa's Extension Services', in Roberts, *Agricultural Extension in Africa*, 85-91.

D. L. Hull, 'In Defense of Presentism', *History and Theory*, 18, 1 (1979), 1-15.

Diana Hunt, *Economic Theories of Development* (NY: Harvester Wheatsheaf, 1989).

Guy Hunter, 'Organisations and Institutions', in Hunter, A. H. Bunting and Anthony Botrall, eds., *Policy and Practice in Rural Development* (1976).

Goran Hyden, *Beyond Ujamaa in Tanzania: Underdevelopment and an Uncaptured Peasantry* (1980).

-----, *No Short Cuts to Progress* (1983).

-----, 'Beyond Hunger in Africa - Breaking the Spell of Mono-Culture', in Cohen, *Satisfying Africa's Food Needs*, 47-78.

-----, 'Reciprocity and Governance in Africa', in Wunsch and Olowu, *Failure of the Centralised State*, 245-269.

Okechukwu Ibeanu, 'The Deteriorating Condition of the Nigerian Peasantry', in Nnoli, *Deadend to Nigerian Development*, 124-153.

Francis S. Idachaba, 'The "Demonstration Effect" of Farm Institutes and Settlements: Theory and Evidence', *BRES*, 8, 2 (1973), 193-209.

-----, 'Revenue Potential of Taxes on Marketing Board Crops', *Journal of Rural Economics and Development*, 9, 2 (1974/75), 77-88.

-----, 'The Role of the Agricultural Development Projects (ADPs) in Nigeria's Agricultural Strategy', in David P. Feldman and Francis S. Idachaba (eds.), *Crop Marketing and Input Distribution in Nigeria* (Ibadan: FACU, 1984), 15-23.

-----, *Rural Infrastructures in Nigeria* (Ibadan: IUP, 1985).

-----, 'Commodity Boards in Nigeria: A Crisis of Identity', in Kwame Arhin, Paul Hesp and Laurens van der Laan (eds.), *Marketing Boards in Tropical Africa* (1985), 149-168.

-----, 'Rural Development in Nigeria: Foundations of Sustainable Economic Development', *IJA*, 8 (1986), 71-119.

-----, 'The Political Economy of Nigeria's Green Revolution Programme', in NES, *Nigerian Economy*, 87-110.

-----, 'Sustainability Issues in Agricultural Development', in Ted J. Davis and Isabelle A. Schirmer, eds., *Sustainability Issues in Agricultural Development* (Washington, D.C., IBRD, 1987), 18-53.



-----, 'Commentary on Infrastructure', in Mellor, Delgado, and Blackie, *Accelerating Food Production*, 232-238.

-----, 'State-Federal Relations in Nigerian Agriculture', *MADIA Discussion Paper 8* (Washington, D.C.: World Bank, 1989).

----- and G. B. Ayoola, 'Market Intervention Policy in Nigerian Agriculture: An Ex-post Evaluation of the Technical Committee on Produce Prices', *DPR*, 9 (1991), 285-299.

Bolaji Idowu, *Olodumare: God in Yoruba Belief* (Ibadan, 1962).

C. C. Ifemesia, 'The Civilising Mission of 1841: Aspects of an Episode in Anglo-Nigerian Relations', *JHSN*, 2, 3 (1962), 291-310.

M. S. Igben and P. A. Banwo, 'Grain Reserves and Food Security in Nigeria', *FP*, 7, 3 (1982), 257-260.

Martin U. Igbozurike, 'Against Monoculture', *PG*, 23, 2 (1971), 113-117.

-----, 'Ecological Balance in Tropical Agriculture', *GR*, 61, 4 (1971), 519-529.

----- (ed.), *Land Use and Conservation in Nigeria* (Nsukka: University of Nigeria Press, 1981).

-----, *Agriculture at the Crossroads* (Ile-Ife: University of Ife Press, n.d.).

----- and R. Raza (eds.), *Rural Nigeria: Development and Quality of Life*, ARMTI Seminar Series N<sup>o</sup> 3 (Ilorin: ARMTI, 1983).

Julius O. Ihonvbere, 'Economic Crisis, Structural Adjustment and Social Crisis in Nigeria', *WD*, 21, 1 (1993), 141-153.

Obaro Ikime, 'The Anti-Tax Riots in Warri Province, 1927-28', *JHSN*, III, 3 (1966), 559-73.

C. O. Ikporukpo, 'The Management of the Rural Transportation Problem in Nigeria', *QJA*, XXI, 1/2 (1986/87), 57-71.

International Labour Office, *Mechanisation and Employment in Agriculture: Case Studies from Four Continents* (Geneva: ILO, 1973).

I. Inukai, 'Farm Mechanisation, Output and Labour Input: A Case Study in Thailand', *ILR*, 101, 5 (1970), 453-473.

F. R. Irvine, *A Textbook of West African Agriculture* (2nd ed., 1953).

Robert H. Jackson and Carl G. Rosberg, 'Why African States Persist: the Empirical and the Juridical in Statehood', *WP*, 35, 1 (1982), 1-24.

Vali Jamal and John Weeks, *Africa Misundertood or Whatever Happened to the Rural-Urban Gap?* (1993).

Charles Jarmon, *Nigeria: Reorganisation and Development since the Mid-Twentieth Century* (Leiden: E. J. Brill, 1988).

Edward Jaycox, 'The Bank and Urban Poverty', *FaD*, 15, 3 (1978), 10-13.

M. D. W. Jeffreys, 'Average Size of a Native Hoe Farm in Nigeria', *FaD*, VIII, 1 (1947), 32-36.

Samuel Johnson, *History of the Yorubas: From the Earliest Times to the Beginning of the British Protectorate* (1921).

Bruce F. Johnston, *The Staple Food Economies of Western Tropical Africa* (Stanford: Stanford University Press, 1958).

-----, 'Agricultural Development and Economic Transformation: A Comparative Study of the Japanese Experience', *FRIS*, III, 3 (1962), 223-276.

-----, 'Agriculture and Economic Development: The Relevance of the Japanese Experience', *FRIS*, VI, 3 (1966), 251-312.

-----, 'Agriculture and Structural Transformation in Developing Countries: A Survey of Research', *JEL*, 3, 2 (1970), 369-404.

----- and John W. Mellor, 'The Role of Agriculture in Economic Development', *AER*, 51, 4 (1961).

----- and John Cownie, 'The Seed-Fertiliser Revolution and Labour Force Absorption', *AER*, LIX, 4 Part I (1969), 569-582.

----- and William C. Clark, *Redesigning Rural Development: A Strategic Perspective* (Baltimore and London: John Hopkins, 1982).

William Jones, 'Manioc: An Example of Innovation in African Economies', *EDCC*, V, 2 (1957), 97-117.

-----, *Manioc in Africa* (Stanford: Stanford University Press, 1959).

-----, 'Economic Man in Africa', *FRIS*, 1 (1960), 107-134.

Richard Joseph, 'Affluence and Underdevelopment: the Nigerian Experience', *JMAS*, 16, 2 (1978), 221-239.

-----, 'Class, State and Prebendal Politics in Nigeria', *JCCP*, 21, 3 (1983), 21-38.

Garvin Karunaratne, 'The Failure of the Community Development Programme in India', *CDJ*, 11, 2 (1976), 95-111.

N. Kasfir, 'The Notion of an Autonomous African Peasantry', *Mawazo*, 5, 3 (1984), 35-46.

-----, 'Are African Peasants Self-Sufficient?', *DaC*, 17, (1986), 335-357.

A. H. Kassan and J. M. Kowal, 'Productivity of Crops in the Savanna and Rain Forest Zones in Nigeria', *Savanna*, 2, 1 (1973), 39-49.

Paul Kennedy, 'Political Barriers to African Capitalism', *JMAS*, 32, 2 (1994), 191-213.

A. U. Khan, 'Agricultural Mechanisation: The Tropical Farmer's Dilemma', *WC*, 24, 4 (1972), 208-213.

Peter Kilby, 'The Nigerian Palm Oil Industry', *FRIS*, VII, 2 (1967), 177-203.

T. Killick, 'The Role of the Public in the Industrialisation of African Countries', *Industry and Development*, 7 (1983).

B. H. Kinsey and Iftikhar Ahmed, 'Mechanical Innovations on Small African Farms: Problems of

Development and Diffusion', *ILR*, 122, 2 (1983), 227-238.

Martin A. Klein, 'Review of *An Economic History of West Africa* by A. G. Hopkins', *African Economic History*, 1 (1976), 43-50.

Bernado Kliksberg, 'The "Necessary State": A Strategic Agenda for Discussion', *International Review of Administrative Sciences*, 60 (1994), 183-196.

Frank H. Knight, 'Anthropology and Economics', *JPE*, XLIX, 2 (1941), 247-268.

Odin Knushen *et. al.*, 'Redefining the Role of Government in Agriculture for the 1990s', *World Bank Discussion Paper N° 105* (Washington, D.C., IBRD, 1990).

P. Koehn, 'Agricultural Policy and Environmental Destruction in Ethiopia and Nigeria', *Rural Africana*, 25-26 (Spring-Fall, 1986).

-----, *Public Policy and Administration in Africa: Lessons from Nigeria* (Boulder: Westview, 1990).

E. F. Kolajo, 'Financing Peasant Agriculture: the Case of Agricultural Credit Guarantee Scheme in Nigeria', *SaD*, 17, 1 (1993), 39-60.

M. I. Kolawole, 'Economic Aspects of Private Tractor Operations in the Savanna Zone of Western Nigeria', *Savanna*, 3, 2 (1974), 175-183.

-----, 'Economic Aspects of Flue-Cured Tobacco Production in the Savanna Zone of Western Nigeria', *Savanna*, 4, 1 (1975), 13-22.

-----, 'The Land Clearing and Stumping Problem: Nature, Causes and Some Solutions', *Savanna*, 7, 1 (1978), 49-51.

Michael Koll, 'The Western Nigerian Cooperative Administration: An Obstacle to Development', in Damachi and Seibel, *Social Change* (1973), 40-50.

David C. Korten, 'Community Organisation and Rural Development: A Learning Process Approach', *Public Administration Review*, 40, 5 (1980), 480-511.

Conrad P. Kottak, 'When People Don't Come First: Some Sociological Lessons from Completed Projects', in M. Cernea, *Putting People First*, 431-464.

Mordechai E. Kreinin, 'The Introduction of Israel's Land Settlement Plan to Nigeria', *Journal of Farm Economics*, 45, 3 (1963), 535-546.

Ram Krishan, *Agricultural Demonstration and Extension Communication* (London: Asia Publishing House, 1965).

Anne O. Krueger, 'Government Failures in Development', *JEP*, 4, 3 (1990), 9-23.

-----, *Political Economy of Policy Reform in Developing Countries* (1993).

H. L. van der Laan and W. T. M. van Haaren, *African Marketing Boards Under Structural Adjustment: The Experience of Sub-Saharan Africa during the 1980s*, Working Paper 13, African Studies Centre, Leiden (1990).

S. T. Labode, *Party Power: The Experience of an Accountant* (Abeokuta: Gbemi Sodipo Press, 1988).

David Laitin, *Hegemony and Culture: Politics and Religious Change among the Yoruba* (Chicago: Chicago University Press, 1986).

D. Lal, 'The Misconceptions of Development Economics', *FaD*, 22, 2.

P. H. Lamb, 'Agricultural Development in Nigeria', *JRAS*, 30, 1930-1, 119-27.

Robin Law, 'The Historiography of the Commercial Transition in Nineteenth-Century West Africa', in Toyin Falola (ed.), *African Historiography: Essays in Honour of Jacob Ade Ajayi* (1993), 91-115.

Peter Lawrence, 'The Political Economy of the 'Green Revolution' in Africa', *ROAPE*, 42 (1988), 59-75.

D. A. M. Lea and D.P. Chaudhri (eds.), *Rural Development and the State* (1983).

Gaston G. Leduc, 'The Economic Balance Sheet of Colonialism', *Journal of Contemporary History*, 4, 1 (1969), 37-50.

David Lehman, 'Agrarian Structures and Paths of Transformation', *JCA*, 7, 1 (1977).

Uma Lele, *The Design of Rural Development: Lessons from Africa* (Baltimore and London: John Hopkins, 1975).

-----, 'Considerations Related to Optimum pricing and Marketing Strategies in Rural Development', in T. Dams and K. E. Hunt (eds.), *Decision-Making and Agriculture* (Lincoln and London: University of Nebraska Press, 1977), 488-514; discussion 524-516.

Christopher Leo, 'The Failure of the 'Progressive Farmer' in Kenya's Million-Acre Settlement Scheme', *JMAS*, 16, 4 (1978), 619-638.

David K. Leonard, 'African Practice and the Theory of User Fees', in John Howell (ed.), *Recurrent Costs and Agricultural Development* (1985), 130-145.

M. Leupolt, 'IRD: Key Elements of an IRD Strategy', *Sociologia Ruralis*, XVIII, 1/2 (1977), 7-28.

John P. Lewis, et al., eds., *Strengthening the Poor* (New Brunswick and Oxford, Transaction Books, 1988).

Peter M. Lewis, 'Economic Statism, Private Capital, and the Dilemmas of Accumulation in Nigeria', *WD*, 22, 3 (1994), 437-451.

C. Leys, *The Rise and Fall of Development Theory* (1991).

-----, 'Underdevelopment and Dependency: Critical Notes', *JCA*, 7, 1 (1977), 92-107.

Ronald T. Libby, 'IDA: A Legal Fiction Designed to Secure an LDC Constituency', *International Organisation*, 29, 4 (Autumn 1975), 1065-1072.

Michael Lipton, 'The Theory of the Optimising Peasant', *Journal of Developing Societies*, 4, 3 (1968), 327-351.

-----, 'Strategy for Agriculture: Urban Bias and Rural Planning', in Paul Streeten and Lipton (eds.), *The Crisis of Indian Planning* (1968), 83-147.

-----, 'Urban Bias and Food Policy in Poor Countries', *FP*, 1, 1 (1975), 41-52.

- , *Why Poor People Stay Poor* (Cambridge, Mass.: Harvard University Press, 1977).
- , 'Game Against Nature: Theories of Peasant Decision Making', in Harriss (ed.), *Rural Development* (1982), 258-268.
- , 'Agriculture and Central Physical Grid Infrastructure', in Mellor, Delgado and Blackie, *Accelerating Food Production*, 210-226.
- , 'Agricultural Research and Modern Plant Varieties in Sub-Saharan Africa: Generalisations, Realities and Conclusions', *JID*, 1, 1 (1989), 168-179.
- , 'Market Relaxation and Agricultural Development' in Colclough and Manor, *States or Markets?*, 26-47.
- , 'Land Reform as Commenced Business: The Evidence Against Stopping', *WD*, 21, 4 (1993), 641-657.
- with Richard Longhurst, *New Seeds and Poor People* (1989).
- P. C. Lloyd, 'Some Problems of Tenancy in Yoruba Land Tenure', *African Studies*, XII, 3 (1953), 93-103.
- , 'The Yoruba Lineage', *Africa*, XXV, 3 (1955), 235-251.
- , *Yoruba Land Law* (1962).
- , 'Political Structure of African Kingdoms', in Dalton (ed.), *Political Systems and the Distribution of Power* (1965).
- , 'Agnatic and Cognatic Descent Among the Yoruba', *Man*, I, 4, (1966).
- , 'Conflict Theory and Yoruba Kingdoms', in Lewis (ed.), *History and Social Anthropology* (1968).
- 'Ondo Descent', *Man*, n.s. 5 (1970).
- Michael Lofchie and Stephen K. Commins, 'Food Deficits and Agricultural Policies in Tropical Africa', *JMAS*, 20, 1 (1982), 1-25.
- John Lonsdale, 'States and Social Processes in Africa: A Historiographical Survey', *ASR*, 24, 2/3 (1981), 139-225.
- , 'African Pasts in Africa's Future', *CJAS*, 23, 1 (1989), 126-46.
- John W. Lowe, 'The IFC and the Agribusiness Sector', *FaD* 14, 1 (1977), 25-28.
- Frederick J. D. Lugard, *Lugard and the Amalgamation of Nigeria: A Documentary Record*, comp. and intr. by A. H. M. Kirk-Greene (1968).
- Akin L. Mabogunje, 'Crisis in Rural Development Planning in Nigeria (or the Parable of the Old Wineskins)', *Research for Development*, 1 (1981), 1-10.
- , 'The Funtua Integrated Rural Development Project', in R. P. Misra (ed.), *Rural Development: Capitalist and Socialist Paths* (New Delhi: Concept, 1981), 175-273.
- , 'Capitalist Revolution: Strategy for Rural Development in Africa', *Africa*, 56, 1 (1986), 97-102.

- , 'The X-Factor: Peasants and Nigeria's Development Process' in NES, *Nigeria's Developmental Problems*, 41-57.
- , 'The Demobilization of the Nigerian Peasantry', in R. P. Misra and Nguyen Tri Dung (eds.), *Third World Peasantry: A Continuing Saga of Deprivation*, Vol. I (1986), 230-244.
- , 'Mobilizing Nigeria's Grassroots for increased Food Production: Reaching out from the Centre' *FP*, 15, 4 (1990), 306-312.
- , 'On Developing and Development', in Otite and Okali, *Readings in Nigerian Rural Society*, 457-473.
- and M. B. Gleave, 'Changing Agricultural Landscape in Southern Nigeria: The Example of Egba Division', *NGJ*, VII, 2 (1964), 1-15.
- and Paul Richards, 'Land and People- Models of Spatial and Ecological Processes in West African History', in Ajayi and Crowder, *History of West Africa*, 5-47.
- Ephraim N. Madu and E. F. Umebali, 'Self-Help Approach to Rural Transformation in Nigeria', *CDJ*, 28, 2 (1993), 141-153.
- Theo Mars, 'State and Agriculture in Africa: A Case of Means and Ends', *IDS Bulletin*, 17, 1 (1986), 16-21.
- Keith Marsden, 'Technological Change in Agriculture, Employment and Over-all Development Strategy', in ILO, *Mechanisation*, 1-17.
- C. Paul Marsh and A. Lee Coleman, 'Farmers' Practice-Adoption Rates in Relation to Adoption rates of "Leaders"', *Rural Sociology*, XIX, 2 (1954), 180-181.
- , 'The Relation of Farmer Characteristics to the Adoption of Recommended Farm Practices', *Rural Sociology*, XX, 3-4 (1955), 289-296.
- Anne Martin, 'A Note on Research Methodology and Peasant Agriculture', *Farm Economist*, VIII, 9 (1957), 47-48.
- Benton F. Massell, 'Farm Management in Peasant Agriculture: An Empirical Study', *FRIS*, VII, 2 (1967), 205-215.
- S. Maxwell and A. Fernando, 'Cash Crops in Developing Countries: The Issues, the Facts, the Policies', *WD*, 17, 11 (1989), 1677-1708.
- Daniel May, 'Journey in the Yoruba and Nupe Countries in 1858', *JRGS*, 30 (1860).
- J. C. McCann, 'Agriculture and African History', *JAH*, 32 (1991).
- Alan McPhee, *The Economic Revolution in British West Africa* (2nd ed., 1971).
- Malcolm McPherson, 'Why do Researchers Continue to Ignore Risk in Tests of Farmer Efficiency? A Comment on Shapiro's Rejection of the Efficient but Poor Hypothesis', *JDS*, 22, 3 (1986), 604-607.
- John Mellor and Uma Lele, 'Growth Linkages of the New Foodgrain Technologies', *IJAE*, XXVIII, 1 (1973), 35-55.
- , Christopher Delgado, and Malcolm Blackie (eds.), *Accelerating Food Production in Sub-Saharan Africa* (Baltimore and London: John Hopkins, 1987).

Shen Migot-Adholla *et. al.*, 'Indigenous Land Rights Systems in Sub-Saharan Africa: A Constraint on Productivity?', *WBER*, 5, 1 (1991), 155-175.

Ralph Miliband, *The State in Capitalist Society* (1969).

Alvan Millson, 'The Yoruba Country, West Africa', *PRGS*, New ser., XIII, X (1891).

John (Rev) Milum, 'Notes on a Journey from Lagos up the River Niger to Bida, the Capital of Nupe and Ilorin in the Yoruba Country, 1879-1880', *PRGS*, XII (1890), 596-614.

Barrington Moore, Jr.: *Social Origins of Dictatorship and Democracy* (Harmondsworth: Penguin, 1966).

M. P. Moore, 'Cooperative Labour in Peasant Agriculture', *JPS*, 2 (1975), 270-291.

Olajumoke Mordi, 'Organisation of ADP Management in Nigeria: Ekiti-Akoko ADP Case Study', in Sanda, *Corporate Strategy* (1988), 89-95.

E. Philip Morgan, 'The Project Orthodoxy in Development: Re-evaluating the Cutting Edge', *PAAD*, 3, 4 (1983), 329-339.

Jon Moris, *Extension Alternatives in Africa* (1991).

Elliott Morss *et. al.*, *Strategies for Small Farmer Development*, Vol. II Case Studies (Boulder: Westview, 1976).

Michael Mortimore *et. al.* (eds.), *Perspectives on Land Administration and Development in Northern Nigeria* (Kano: Department of Geography, Bayero University, 1986).

Peter Morton-Williams, 'The Oyo Yoruba and the Atlantic Trade, 1670-1830', in J. E. Inikori (ed.), *Forced Migration* (1982), 167-186.

Paul Mosley, 'Policy-Making Without Facts: A Note on the Assessment of Structural Adjustment Policies in Nigeria, 1986-1990', *AA*, 91 (1992), 227-240.

----- and L. Smith, 'Structural Adjustment and Agricultural Performance in Sub-Saharan Africa, 1980-87', *JID*, 1, 3 (1989), 321-55.

----- and John Weeks, 'Has Recovery Begun? "Africa's Adjustment in the 1980s" Revisited', *WD*, 21, 10 (1993), 1583-1606.

G. Motilal, 'Economics of Tractor Utilisation', *IJAE*, XXVIII, 1 (1973), 96-105.

Daniel Mou and Franklin Vivekananda, *New Hopes but Old Seeds: The Political Economy of Capital Accumulation, State, National Development and Agrarian Transformation and the Nigerian Peasantry* (Stockholm: Bethany, 1993).

Shaheen Mozaffar, 'Clarifying Analytical Issues in Corporatism', in Julius E. Nyang'oro and Timothy Shaw (eds.), *Corporatism in Africa: Comparative Analysis and Practice* (Boulder: Westview, 1989), 45-66.

Mansur Mukhtar, 'Agricultural Development in Nigeria: The Role of Market and Non-Market Forces', *ROAPE*, 39, (1987), 42-50.

-----, 'Vent for Surplus Critique and the Development of Export Crop Production in Northern Nigeria-Towards a Socio-Economic Interpretation of History', in I. A. Kiyawa *et al.* (eds.), *Topics on Nigerian History* (Kano: Department of Economics, Bayero University, 1988), 1-18.

John Mullen, 'Training and Visit System in Somalia: Contradictions and Anomalies', *JID*, 1, 1 (1989), 145-167.

D. B. Murray, 'Notes on the Vernacular Names of Some Nigerian Cassavas', *FaF*, 11, 1 (1941), 45-46.

H. Myint, *The Economics of the Developing Areas* (5th edn., 1980).

-----, 'Organisational Dualism and Economic Development', *ADR*, 3, 1 (1986), 24-42.

-----, 'An Interpretation of Economic Backwardness', *Oxford Economic Papers*, new ser., 6, 2 (1954), 132-163.

Joan M. Nelson (ed.), *Economic Crisis and Policy Choice: The Politics of Adjustment in the Third World* (Princeton: Princeton University Press, 1990).

Ronald E. Nelson, 'Review of *Project Appraisal and Planning for Developing Countries* by I. M. D. Little and J. A. Mirrlees', *JDA*, 9, 2 (1975), pp. 282-284.

William H. Nicholls, 'The Place of Agriculture in Economic Development', in Carl Eicher and Lawrence Witt (eds.), *Agriculture in Economic Development* (New York: McGraw Hill, 1964), 11-44.

Nigerian Economic Society (NES), *Rural Development in Nigeria* (Ibadan, 1973).

-----, *Nigeria's Developmental Problems: Multi-Professional Viewpoints* (Lagos: NES, 1986).

-----, *The Nigerian Economy: A Political Economy Approach* (Ibadan?, 1986).

Charles R. Nixon, 'The Role of the Marketing Boards in the Political Evolution of Nigeria', in Eicher, *Growth and Development*, 156-162.

S. A. Nkom, 'Co-operatives and the Political Economy of Agrarian Capitalist Development in Nigeria', *NJPS*, 4, I&II (1985), 105-119.

Okwudiba Nnoli, 'Deadend to Nigerian Development', in Nnoli, *Deadend to Nigerian Development*, 219-238.

----- (ed.), *Deadend to Nigerian Development: An Investigation on the Social Economic and Political Crisis in Nigeria* (Dakar: CODESRIA, 1993).

D. Norman, 'Rationalising Mixed Cropping under Indigenous Conditions: The Example of Northern Nigeria', *JDS*, II, 1 (1979), 3-21.

-----, 'The Rationalisation of Intercropping', *AE*, II, 4 and III, 1 (1977), 97-109.

-----, 'Economic Rationality of Traditional Hausa Dryland Farmers in the North of Nigeria', in Stevens (ed.), *Tradition and Dynamics* (1977), 63-91.

-----, 'Farming Systems Research to Improve the Livelihood of Small Farmers', *AJAE*, 60, 5 (1978), 813-820.

-----, Emmy Simmons and Henry Mays, *Farming Systems in the Nigerian Savanna* (Boulder: Westview, 1982).

Douglas North, *Structure and Change in Economic History* (NY: W. W. Norton, 1981).



-----, 'Institutions and Economic Growth: An Historical Introduction', *WD*, 17, 9 (1989), 1319-1332.

Anthony I. Nwabughuogu, 'From Wealthy Entrepreneurs to Petty Traders: The Decline of African Middlemen in Eastern Nigeria, 1900-1950', *JAH*, 23, 3 (1982), 365-379.

G. Nwoko and A. F. Mabawonku, 'Welfare Indicators for Farmers in Lafia Agricultural Development Project Area', in Igbozurike and Raza, *Rural Nigeria*, 252-260.

E. J. Nwosu, 'The Role of Government in the Development of the Co-operative Movement', *Vierteljahresberichte*, 64 (1976), 143-158.

Julius E. Nyang'oro and Timothy M. Shaw (eds.), *Beyond Structural Adjustment in Africa: The Political Economy of Sustainable and Democratic Development* (New York: Praeger, 1992).

Edmund K. Oasa, 'The Political Economy of International Agricultural Research: A Review of the CGIAR's Response to Criticisms of the "Green Revolution"', in B. Glaeser, *Green Revolution*, 13-55.

L. Obibuaku, 'An Analysis of Agricultural Extension Potentials in Selected Villages in the Western State of Nigeria', in Crouch and Chamala, *Extension Education*.

----- and G. Hursh, 'Effective Methods for Influencing Agricultural Modernisation Among Illiterate and Pre-literate Communities', *BRES*, 11, 1 (1977).

Chukwudi Obinne, 'A Strategy for Agricultural Progress and Socio-Economic Upliftment: Federation of Farmers' Associations of Nigeria', *CDJ*, 29, 1 (1994), 40-46.

Peter Oesterdiekhoff, 'Oil Distortions, Agriculture and Poverty: Implications of the Boom and its Aftermath on Food Security', in Research Group on African Development Perspectives (eds.), *Human Dimensions of Adjustment* (Berlin: Schelzky and Jeep, 1990), 497-524.

Research Group on African Development Perspectives (eds.), *Human Dimensions of Adjustment*.

Walter Ofonagoro, *Trade and Imperialism in Southern Nigeria 1881-1929* (NY: NOK, 1979).

Leo O. Ogba, 'Problems in Community Participation and Rural Development Administration: The Case of Abriba Community in Imo State, Nigeria', *QJA*, 25, 2 (1991), 167-182.

Babafemi Ogundana, 'The Transport Constraint on Rural Development in Nigeria', in NES, *Rural Development* (1973), 77-91.

A. A. Ogunsanya, 'Rural Accessibility Problems and Human Resource Development', *JRS*, 3, 1 (1987), 31-42.

Ayo Ogunsheye, 'Marketing Boards and the Stabilization of Producer Prices and Incomes in Nigeria', *NJESS*, VII, 2 (1965), 131-143.

M. A. Oguntuyi, *History of Ekiti: From the Beginning to 1939* (1979).

G. J. A. Ojo, 'The Changing Patterns of Traditional Group Farming in Ekiti, North Eastern Yoruba Country', *NGJ*, 6, 1 (1963), 31-38.

-----, 'Trends Towards Mechanised Agriculture in Yorubaland', *NGJ*, 6, 2 (1963), 116-129.

-----, *Yoruba Culture: A Geographical Analysis* (1966).

-----, 'Some Observations on Journey to Agricultural Work in Yorubaland, South Western Nigeria', *EcG*, 46, 3 (1970), 459-471.

Ode Ojowu and S. N. A. Mensah, 'Agricultural Commodity Marketing in Nigeria Without the Marketing Boards', *AAE*, 29, 4 (1988), 281-292.

O. O. Okediji, 'Some Socio-Cultural Problems in the Western Nigeria Land Settlement Scheme: A Case Study', *NJESS*, 7, 3 (1965), 301-310.

-----, 'Some Structural Strains in the Change Agent System of the Western Nigeria Land Settlement Scheme', *NJESS*, 10, 3 (1968), 387-395.

Bede N. Okigbo, 'Need for Consistency in Nigeria's Agricultural Development Policy and Programmes', *IJA*, 8 (1986), 35-70.

I. M. Okonjo, *British Administration in Nigeria 1900-50: A Nigerian View* (NY: NOK, 1974).

Aja Okorie, 'Agricultural Project Implementation: Case Gusau', *Journal of Administration*, 12, 9 (1983).

-----, 'Recent Experiences in Input Supply and Distribution in Nigeria', in Feldman and Idachaba, *Crop Marketing*, 110-125.

-----, 'The Role of Commercial Banks in Funding Agriculture in Nigeria, (1960-1984)', *ARMFB*, 1 (1988), 17-35.

-----, 'Federal Government's Recent Budgetary Allocations: implications for Agricultural Development in Nigeria', *SaD*, XIII, 1 (1989), 87-99.

H. W. O. Okoth-Ogendo, 'Agrarian Reform in Sub-Saharan Africa: An Assessment of State Responses to the African Agrarian Crisis and their Implications for Agricultural Development' in Bassett and Crummey (eds.), *Land in African Agrarian Systems*, 247-273.

W. J. Okowa, 'Urban Bias in Nigerian Development Planning', *NJESS*, 29, 1 (1987), 47-59.

M. A. O. Oladokun and A. G. Daramola, 'Nigerian Cocoa Development Programme: A Comparative Efficiency of Fund Utilisation', *SaD*, XIV, 2 (1990), 175-184.

O. Olakanpo and O. Teriba, 'Fiscal, Monetary and Investment Implications of the Marketing Boards', in Onitiri and Olatunbosun, *Marketing Board*, 179-196.

A. Olanrewaju and Toyin Falola (eds.), *Rural Development Problems in Nigeria* (Aldershot: Avebury, 1992).

Goke Olanrewaju, 'Rural Development in Nigeria: Some Lessons from the Chinese Experience', *Odu* (Jan 1985), 24-38.

Dupe Olatunbosun, 'The Farm Settlement: A Case Study of an Agricultural Project in Nigeria', *BRES*, 6, 1 (1971), 7-36.

-----, 'Western Nigeria Farm Settlements: An Appraisal', *JDA*, 5, 3 (1971), 417-428.

-----, *Nigeria's Neglected Rural Majority* (Ibadan: OUP, 1975).

J. K. Olayemi, 'Food Crop Production by Small Farmers in Nigeria', in Olayide, Eweka, and Bello-Osagie, *Nigerian Small Farmers*, 17-33.

S. O. Olayide, 'Agricultural Productivity and Increased Food Production Under Economic Development in Nigeria', in NES, *Rural Development in Nigeria* (Ibadan, 1973), 45-76.

-----, 'Agriculture in the Federal Republic of Nigeria: A Review of Developments to 1975', in O. Oyediran (ed.), *Survey of Nigerian Affairs 1975* (Lagos: NIIA, 1978), 19-33.

-----, 'Agricultural Technology and Nigeria's Small Farmers', in Olayide, Eweka and Bello-Osagie, *Nigerian Small Farmers*, 51-65.

-----, E. O. Idusogie, and Dupe Olatunbosun, 'New Dimensions in the Administration of Agriculture in Nigeria', *QJA*, 6, 1 (1971), 55-69.

----- and S. O. Olowude, 'Optimum Combination of Farm Enterprises in Western Nigeria: A Linear Programming Analysis', *NJESS*, 14, 1 (1972), 63-76.

----- et. al., *Quantitative Analysis of Food Requirements, Supplies and Demands in Nigeria, 1968-1985* (Lagos: Federal Department of Agriculture, 1972).

-----, J. K. Olayemi, and J. A. Eweka, *Perspectives on Benin-Owena River Basin Development* (Ibadan: CARD, 1979).

-----, J. Eweka, and V. Bello-Osagie (eds.), *Nigerian Small Farmers: Problems and Prospects in Integrated Rural Development* (Ibadan: CARD, 1980).

----- and Francis S. Idachaba, 'Input and Output Marketing Systems: A Nigerian Case', in John W. Mellor, Christopher L. Delgado and Malcolm J. Blackie (eds.), *Accelerating food Production in Sub-Saharan Africa* (1987), 173-186.

J. P. Olinger, 'The World Bank and Nigeria', *ROAPE*, 13 (1978), 101-107.

A. S. Olomola, 'Dimensions of Institutional and Policy Deficiencies in the Nigerian Agricultural Credit System', *DPR*, 7 (1989), 171-183.

-----, 'Credit Control Policies for Improved Agricultural Financing in Nigeria: Panacea, Placebo or Structural Bottleneck?', *ARMFB*, 1 (1991), 23-38.

A. Olorunfemi, 'Background to the Establishment of the Nigerian Cocoa Marketing Board 1947-48', *Odu*, 19 (1979), 58-77.

Mancur Olson, *The Logic of Collective Action* (Cambridge, Mass.: Harvard University Press, 1971).

Bayo Olujimi and Layi Egunjobi, 'Public Participation in a Village Regrouping Scheme', *CDJ*, 26, 3 (1991), 165-171.

J. A. Olujobi, 'Review of Input Supply and Distribution Arrangements in EKiti-Akoko ADP', in Feldman and Idachaba, *Crop Marketing and Input Distribution* (1984), 176-178.

A. O. Olukoshi (ed.), *Crisis and Adjustment in the Nigerian Economy* (Lagos: JAD, 1991).

----- (ed.), *The Politics of Structural Adjustment in Nigeria* (1992).

P. O. Olusanya, 'Differential Rural-Urban Development in Nigeria and the Myth of the Exploited Peasantry', *Odu*, New ser., 27 (1986), 3-23.

S. A. Olusuyi, 'Some Farmers' Problems that must be attended to before Farmers can play their rightful

Role in Economic Viability of Ondo State', in G. T. Fatunla (ed.), *Economic Viability of Ondo State* (Akure: NES, 1984).

Hezekiah Oluwasanmi and J. Alao, 'Role of Credit in the Transformation of Traditional Agriculture: The Western Nigeria Experience', *BRES*, 1, 1 (1964), 59-74.

Olu Omopariola, 'Financing Agricultural Development: A Case Study of the Ondo State Agricultural Credit Corporation', in Sanda, *Corporate Strategy* (1988), 97-108.

S. A. Oni, 'The Present Stage and Prospects of Agricultural Mechanisation in Nigeria', in *Recent Stage and Prospects of Agricultural Mechanisation in Developing Countries* (Berlin: Akademie-Verlag, 1976), 117-135.

Bade Onimode, *Imperialism and Underdevelopment in Nigeria: The Dialectics of Mass Poverty* (1982).

H. M. A. Onitiri, 'A Proposal for Nigerian Rural Development', *NJESS*, 8, 1 (1966), 3-8.

----- and Dupe Olatunbosun (eds.), *The Marketing Board System* (Ibadan: NISER, 1974).

E. A. Oroge, 'Iwofa: An Historical Survey of the Yoruba Institution of Indenture', *AEH*, 14 (1985), 75-106.

Eghosa E. Osaghae, 'From Benevolence to Greater Benevolence: The State and the Politics of Structural Adjustment in Africa', *Africa Quarterly*, 33 (1993), 77-106.

Niyi Osundare, 'The Ogunbiyi Phenomenon', *Newswatch* (Lagos), 9 March 1992.

Adeniyi Osuntogun, 'Impact of Co-operative Credit on Farm Income and the Efficiency of Resource Allocation in Peasant Agriculture: Case Study from Three States in Nigeria', *AJAS*, V, 2 (1978),

-----, 'Co-operatives and Small Farmers in Nigeria', in Olayide, Eweka and Bello-Osagi (eds.), *Nigerian Small Farmers* (1980), 133-148.

----- and Olufemi Oludimu, 'Extending Agricultural Credit through Public Institutions in Nigeria: A Comparative Study of the Ondo State Agricultural Credit Corporation and the Ogun State Agricultural Development Corporation', *Oxford Agrarian Studies*, X (1981), 85-97.

----- and Wole Adewumi (eds.), *Rural Banking in Nigeria* (1983).

----- and Rex Ugorji (eds.), *Financing Agricultural Development in Nigeria* (Ilorin: ARMTI, 1986).

Onigu Otite and Christine Okali (eds.), *Readings in Nigerian Rural Society and Rural Economy* (Ibadan: Heinemann, 1990).

Keijiro Otsuka, Fe Gascon and Seki Asano, 'Green Revolution and Labour Demand in Rice Farming: The Case of Central Luzon, 1966-90', *JDS*, 31, 1 (1994), 82-109.

Wyn F. Owen, 'The Double Developmental Squeeze on Agriculture', *AER*, LVI, 1 (1966), 43-70.

O. F. J. Oyaide, 'The Challenge of Rural Development in Nigeria', *FACU Occasional Paper 7* (Ibadan: FACU, 1989).

Oyeleye Oyediran, 'Voting Behaviour' in O. Oyediran (ed.), *The Nigerian 1979 Elections* (1981), 93-110.

O. Oyelaran et al (eds.), *Obafemi Awolowo: The End of an Era?* (Ile-Ife: Obafemi Awolowo University

Press, 1988).

D. A. Oyeleye, 'Tobacco Cultivation in Oyo Division, Western Nigeria', *NGJ*, 14, 2 (1971), 165-184.

Wale Oyemakinde, 'The Pullen Marketing Scheme: A Trial in Food Price Control in Nigeria, 1941-1947', *JHSN*, VI, 4 (1973), 413-23.

V. A. Oyenuga, *Agriculture in Nigeria: An Introduction* (Rome: FAO, 1967).

Sam. E. Oyovbaire, *Federalism in Nigeria: A Study in the Development of the Nigerian State* (1985).

W. Page and P. Richards, 'Agricultural Pest Control by Community Action: The Case of the Variegated Grasshopper in Southern Nigeria', *AE*, II, 4 and III, 1 (1977), 127-141.

T. W. Parfitt and Stephen Riley, 'Nigeria: the Circuitous path to Stabilization?', in idem, *The African Debt Crisis* (1989), 48-74.

A. U. Patel and J. A. Ekpere, 'Strategy for Agricultural Development at Grassroot Level: A Nigerian Case', in Crouch and Chamala, *Extension Education*, 213-220.

G. Pauker, 'The Political Consequences of Rural Development in Indonesia', *Pacific Affairs*, 41, 3 (1968).

Cheryl Payer, *The World Bank: A Critical Analysis* (New York: Monthly Review Press, 1982).

J. A. O. Payne, *Table of Principal Events in Yoruba History* (Lagos, 1893).

J. D. Y. Peel, *Ijeshas and Nigerians: The Incorporation of a Yoruba Kingdom 1890s -1970s* (Cambridge: Cambridge University Press, 1983).

Stephen B. Peterson, 'Government, Cooperatives, and the Private Sector in Peasant Agriculture', in David K. Leonard and Dale R. Marshall (eds.), *Institutions of Rural Development for the Poor: Decentralization and Organisational Linkages* (Berkeley: Institute of International Studies, University of California, 1982), 73-124.

-----, 'Alternative Local Organisations Supporting the Agricultural Development of the Poor', in Leonard and Marshall, 125-150.

Anne Phillips, *The Enigma of Colonialism: British Policy in West Africa* (1989).

A. O. Phillips, 'Economic Impact of Nigeria's Structural Adjustment Programme', *NISER Monograph Series No. 1*, 1990.

Dayo O. A. Phillip, 'The Demand for Tractor Services by Farmers in Kaduna State: Estimates and Policy Options', *Savanna*, 9, 1 (1988),

-----, 'An Empirical Preview of the Proposed Agricultural Insurance Scheme in Nigeria', *African Review of Money Finance and Banking*, 1 (1988), 5-14.

Sylvestre Piam, 'The State and Economic Competitiveness', *International Review of Administrative Sciences*, 60 (1994), 197-212.

James Pickett, 'Reflections on the Market and State in SSA', *ADR*, 1, 1 (1989), 58-86.

Prabhu Pingali, Yves Bigot, and Hans P. Binswanger, *Agricultural Mechanization and the Evolution of*

*Farming Systems in Sub-Saharan Africa* (Washington: IBRD, 1987).

Brian Pinto, 'Nigeria During and After the Oil Boom: A Policy Comparison with Indonesia', *WBER*, 1, 3 (1987), 419-445.

S. Please, *The Hobbled Giant: Essays on the World Bank* (Boulder: Westview, 1984).

-----, 'Beyond Structural Adjustment in Africa', *DPR*, 10, 3 (1992), 289-307.

K. Polanyi (ed.), *Trade and Markets in the Early Empires* (1957).

Samuel L. Popkin, *The Rational Peasant: The Political Economy of Rural Society in Vietnam* (Berkeley: University of California Press, 1979).

K. W. J. Post, *The Nigerian Federal Election of 1959* (Oxford: OUP for NISER, 1963).

-----, '"Peasantization" and Rural Political Movements in Western Africa', *European Journal of Sociology*, XIII, 2 (1972),

John P. Powelson and Richard Stock, *The Peasant Betrayed* (Washington: CATO Institute, 1990).

E. I. Price, 'Co-operation and the Co-operative Department' (Ibadan, Government Printer, 1952).

Cyril Punch, 'Land Tenure and Inheritance in Yoruba', in H. Ling Roth, *Great Benin: Its Customs, Arts and Horrors* (1903), xxi-xxiv.

Louis Putterman and Dietrich Rueschemeyer, (eds.), *State and Market in Development* (Boulder: Lynne Rienner, 1992).

K. N. Raj, 'Mechanisation of Agriculture in India and Sri Lanka (Ceylon)', in ILO, *Mechanisation*, 109-128.

T. O. Ranger, 'Towards a Usable African Past' in Christopher Fyfe (ed.), *African Studies Since 1945* (1976), 17-30.

John Ravenhill (ed.), *Africa in Economic Crisis* (Basingstoke: Macmillan, 1986).

Sumit Roy, 'Role of the Post-Colonial State in Agriculture: India and Nigeria Experiences', *Foreign Affairs Reports*, 38, 4 (1989), 53-62.

Robert Redfield *Peasant Society* (Chicago: Chicago University Press, 1960).

Lloyd G. Reynolds, 'The Spread of Economic Growth to the Third World: 1850-1980', *JEL*, XXI, 3 (1983), 941-980.

Paul Richards, '"Alternative" Strategies for the African Environment: "Folk Ecology" as a Basis for Community Orientated Agricultural Development', in Richards (ed.), *African Environment: Problems and Prospects* (1975), 102-114.

-----, 'Farming Systems and Agrarian Change in West Africa', *PHG*, 7, 1 (1983), 1-39.

-----, 'Ecological Change and the Politics of African Land Use', *ASR*, 26, 2 (1983), 1-72.

-----, *Indigenous Agricultural Revolution: Ecology and Food Production in West Africa* (1985).

- , *Coping with Hunger: Hazard and Experiment in an African Rice-Farming System* (1986).
- , 'Landscape of Dissent- Ikale and Ilaje Country 1870-1950', in Ajayi and Peel (eds.), *People and Empires*, 161-183.
- Peter Richards, 'The Economic Context of Rural Roads', in John Howe and Peter Richards (eds.), *Rural Roads and Poverty Alleviation* (1984), 1-17.
- Douglas Rimmer, 'Development in Nigeria: An Overview', in Henry Bienen and V. P. Diejomaoh (eds.), *The Political Economy of Income Distribution in Nigeria* (New York: Holmes and Meier, 1981), 29-87.
- , *Staying Poor: Ghana's Political Economy 1952-1990* (Oxford: Pergamon, 1992).
- Nigel Roberts (ed.), *Agricultural Extension in Africa* (Washington, World Bank, 1989).
- Emery M. Roe, 'Development Narratives, Or Making the Best of Blueprint Development', *WD*, 19, 4 (1991), 287-300.
- W. Roider, 'Nigerian Farm Settlements', in A. H. Bunting (ed.), *Change in Agriculture* (1970), 421-426.
- Dennis A. Rondinelli, 'Projects as Instruments of Development Administration: A Qualified Defence and Suggestions for Improvement', *PAAD*, 3, 4 (1983), 307-327.
- , *Development Projects as Policy Experiments: An Adaptive Approach to Development Administration* (2nd ed., 1993).
- William Roseberry, 'Peasants as Proletarians', *Critique of Anthropology*, 3, 11 (Spring 1978), 3-18.
- W. W. Rostow, *The Stages of Economic Growth* (Cambridge: CUP, 1991).
- Murray N. Rothbard, *Power and Market: Government and the Economy* (California: Institute for Humane Studies, 1970).
- C. W. Rowling, *Report on Land Tenure in Ondo Province* (Lagos: Government Printer, 1952).
- Dietrich Rueschemeyer and Peter B. Evans, 'The State and Economic Transformation: Toward an Analysis of the Conditions Underlying Effective Intervention', in Peter B. Evans, Dietrich Rueschemeyer and Theda Skocpol (eds.), *Bringing the State Back In* (Cambridge: CUP, 1985), 44-77.
- Hans Ruthenberg, *Farming Systems in the Tropics* (Oxford: Clarendon Press, 1980).
- , *Innovation Policy for Small Farmers in the Tropics: The Economics of Technical Innovations for Agricultural Development*, ed. Hans E. Jahnke (Oxford: Clarendon Press, 1985).
- V. Ruttan, 'IRD Programs: A Skeptical Perspective', *International Development Review*, 18, 4 (1975), 9-16.
- Vernon W. Ruttan and Hans P. Binswanger, 'Induced Innovation and the Green Revolution', in Hans P. Binswanger, V. W. Ruttan with others, *Induced Innovation: Technology, Institutions, and Development* (Baltimore and London: John Hopkins University Press, 1978), 358-408.
- Vernon W. Ruttan and Colin Thirtle, 'Induced Technical and Institutional Change in African Agriculture', *JID*, 1, 1 (1989), 1-45.

- Ignacy Sachs, 'Towards a Second Green Revolution?', in B. Glaeser, *Green Revolution*, 193-198.
- David E. Sahn and Alexander Sarris, 'The Evolution of States, Markets, and Civil Institutions in Rural Africa', *JMAS*, 32, 2 (1994), 279-303.
- A. O. Sanda (ed.), *Corporate Strategy for Agricultural and Rural Development in Nigeria* (Ibadan: Les Shyraden, 1988).
- , *The Nigerian State and Agricultural Policy Managements* (Ile-Ife: Research Group on Management Problems of Agricultural Programmes in Nigeria, 1991).
- Richard Sandbrook with Judith Barker, *The Politics of Africa's Economic Stagnation* (Cambridge: CUP, 1985).
- S. N. Sangmpam, 'Neither Soft nor Dead: The African State is Alive and Well', *African Studies Review*, 36, 2 (1993), 73-94.
- Hans-Otto Sano, 'The Political Economy of Food in Nigeria 1960-82: A Discussion on Peasants, State, and World Economy', *Research Report No. 65*, Scandinavian Institute of African Studies (1983).
- James S. Scarritt and Shaheen Mozaffar, 'Change and Continuity in the British Colonial State in Africa: Integrating Theoretical Perspectives', in Edward S. Greenberg and Thomas F. Mayer (eds.), *Changes in the State: Causes and Consequences* (1990), 149-166.
- Sayre P. Schatz, 'Pirate Capitalism and the Inert Economy of Nigeria', *JMAS*, 22, 1 (1984), 45-57.
- Theodore Schultz, *Transforming Traditional Agriculture* (New Haven: Yale University Press, 1964).
- Thomas Schweigert, 'Penny Capitalism: Efficient But Poor or Inefficient and (Less Than) Second Best?', *WD*, 22, 5 (1994), 721-735.
- J. C. Scott, *The Moral Economy of the Peasant* (1976).
- A. Seager, 'Engineering Aspects of the Western Nigeria Farm Settlement Scheme', *World Crops* 17, 3 (1965), 20-27.
- D. Seers, 'The Limitations of the Special Case', *Oxford University Institute of Economics and Statistics Bulletin*, 25, 2 (1963).
- , 'The Limitations of the Special Cases', *IDS Bulletin*, 20, 3 (1989).
- Peter Self, 'What's Wrong with Government? The Problem of Public Choice', *Political Quarterly*, 61, 1 (1990), 23-35.
- John Sender and Sheila Smith, *Poverty, Class, and Gender in Rural Africa: A Tanzanian Case Study* (1990).
- Theodore Shanin, *Defining Peasants* (Oxford: Basil Blackwell, 1990).
- (ed.), *Peasants and Peasant Society* (Harmondsworth: Penguin, 1971).
- K. H. Shapiro, 'The Limits of Policy Reform in African Agricultural Development of World Bank's Agenda', *Rural Africana*, 19-20 (1984).
- Robert Shenton, *The Development of Capitalism in Northern Nigeria* (1986).



- , 'Nigerian Agriculture in Historical Perspective' in Watts, *State, Oil, and Agriculture*, 34-57.
- Vandana Shiva, *The Violence of the Green Revolution: Third World Agriculture, Ecology and Politics* (1991).
- Narasingha P. Sil, 'Nigerian Intellectuals and Socialism: Retrospect and Prospect', *JMAS*, 31, 3 (1993), 361-385.
- Norman W. Simmonds, *Farming Systems Research: A Review* (Washington, D.C.: IBRD, 1985).
- Katar Singh, 'The Impact of New Agricultural Technology on Farm Income Distribution in the Aligarh District of Uttar Pradesh', *IJAE*, XXVIII, 2 (1973), 1-11.
- K. N. Singh, 'The Need for a Communication Strategy for Rural Development', in Crouch and Chamala, *Extension Education*, 15-32.
- Uma S. Singh and Dayanatha Jha, 'A Note on Efficiency in Transitional Agriculture: A Study of Farms in Rural Delhi', *ibid.*, XXVIII, 3 (1973), pp. 61-65.
- S. K. Sinha, 'Green Revolution and Break-Through in Food Production in India', *ibid.*, XXVIII, 2 (1973), 26-42.
- Melinda Smale, '"Maize is Life": Malawi's Delayed Green Revolution', *WD*, 23, 5 (1995), 819-831.
- Charles D. Smith, *Did Colonialism Capture the Peasantry? A Case Study of the Kagera District, Tanzania* (Uppsala: Scandinavian Institute of African Studies, 1989).
- Herman M. Southworth and Bruce F. Johnston (eds.), *Agricultural Development and Economic Growth* (Ithaca and London: Cornell University Press, 1967).
- D. Spark, 'Review Article: What Chance of Change for Africa?', *DPR*, 7, 2 (1989).
- Pierre Spitz, 'The Green Revolution Re-examined in India', in B. Glaeser, *Green Revolution*, 56-75.
- Lyn Squire, 'Project Evaluation in Theory and Practice', in H. Chenery and T. N. Srinivasan (eds.), *Handbook of Development Economics* (North-Holland: Elsevier Science Publishers B.V., 1989), 1093-1137.
- John M. Staaz and Carl K. Eicher, 'Agricultural Development Ideas in Historical Perspective', in Eicher and Staaz (eds.), *Agricultural Development in the Third World* (Baltimore: The John Hopkins University Press, 2nd ed. 1990), 3-38.
- L. Dudley Stamp, 'Land Utilization and Soil Erosion in Nigeria', *GR*, XXVIII, I (1938), pp. 32-45.
- R. D. Stevens, 'Transformation of Traditional Agriculture: Theory and Empirical Findings', in Stevens (ed.), *Tradition and Dynamics in Small-Farm Agriculture* (1977).
- Frances Stewart, 'A Note on Social Cost-Benefit Analysis and Class Conflict in LDC's', *WD*, 3, 1 (1975).
- , 'Social Cost-Benefit Analysis in Practice', *WD*, 6, 2 (1978), 135-165.
- , 'Are Adjustment Policies in Africa Consistent with Long-run Development Needs?', *DPR*, 9, 4 (1991), 413-436.
- Matthias Stiefel and Marshall Wolfe, *A Voice for the Excluded: Popular Participation in Development* (1994).

Joseph E. Stiglitz, 'Rational Peasants, Efficient Institutions, and a Theory of Rural Organisation: Methodological Remarks for Development Economics', in Pranab Bardhan (ed.), *The Economic Theory of Agrarian Institutions* (Oxford: Clarendon, 1989), 18-29.

W.B. Stohr and D.R. Frazer Taylor (eds.), *Development From Above or Below?* (New York: John Wiley, 1981).

Wolfgang Stolper, *Planning Without Facts: Lessons in Resources Allocation from Nigeria's Development* (Cambridge: Harvard University Press, 1966).

Paul Streeten, 'Development Ideas in Historical Perspective' in *Toward a New Strategy for Development*, a Rothko Chapel Symposium (New York: Pergamon, 1977).

-----, 'Markets and States: Against Minimalism', *WD*, 21, 8 (1993), 1281-1298. Also published as 'Against Minimalism' in Putterman and Rueschemeyer, *State and Market in Development*, 15-38.

Paul M. Sweezy et al., *The Transition from Feudalism to Capitalism* (1978).

Ken Swindell, *Farm Labour* (Cambridge: CUP, 1985).

----- and A. B. Mamman, 'Land Expropriation and Accumulation in the Sokoto Periphery, northwest Nigeria', *Africa*, 60, 2 (1990), 173-187.

C. A. P. Takes, 'Problems of Rural Development in Southern Nigeria', *NISER Reprint Series No. 9*, reprinted from *Tijdschrift Van Het Koninklijk Nederlandsch Aardrijkskundig Genootschap*, LXXXI, 4 (1964).

P. A. Talbot, *The Peoples of Southern Nigeria* (1926).

Ajibola Taylor, 'Mixed Cropping as an input in the management of crop pests in tropical Africa', *AE*, II, 4 and III, 1 (1977), 111-126.

Francis Teal, 'Domestic Policies, External Constraints and Economic Development in Nigeria Since 1950', *AA*, 87, 346 (1988).

O. Teriba, 'Development Strategy, Investment Decision, and Expenditure Patterns of a Public Development Institution: the Case of Western Nigeria Development Corporation, 1949-1962', *NJESS*, 8, 2 (1966), 235-258.

T. Thorton, 'Maintenance of the Fertility of the Soil by the Use of Leguminous Crops', *Sixth Annual Bulletin of the Agriculture Department* (1927), 122-126.

Duru Tobi, 'The Relevance of Lipton's Urban Bias Thesis to Nigeria', *NISER Monograph Series N° 3* 1989.

S. Tomori, 'The Relevance of Economic Science to Nigerian Economic Development', *NJESS*, 21, 1-3 (1979), 33-56.

John Tosh, 'The Cash-Crop Revolution in Tropical Agriculture: An Agricultural Reappraisal', *AA*, 79 (1980), 79-94.

John Toye, 'Can the World Bank Resolve the Crisis of Developing Countries?', *JID*, 1, 2 (1989), 261-272.

-----, 'Is there a New Political Economy of Development?' in Colclough and Manor, *States or Markets?*, 321-338.

- , *Dilemmas in Development* (Oxford: Basil Blackwell, 2nd ed. 1993).
- A. C. Tunstall, 'Spraying Machines for the Small-scale Farmer', *WC*, 8, 6, (1956), 230-232; 240.
- B. L. Turner II, G. Hyden and Robert W. Kates (eds.), *Population Growth and Agricultural Change in Africa* (Gainesville: University Press of Florida, 1993).
- J. A. Ukoje and J. M. Baba, 'The Impact of the Ayangba Agricultural Development Project on the Quality of Rural Life', in Igbozurike and Raza, *Rural Nigeria*, 204-251.
- R. K. Udo, 'Sixty Years of Plantation Agriculture in Southern Nigeria: 1902-1962', *EcG*, 41, 4 (1965).
- , 'British Policy and the Development of Export Crops in Nigeria', *NJESS*, 9, 3 (1967), 299-314.
- , 'Food-Deficit Areas of Nigeria', *GR*, 61, 3 (1971), 415-430.
- , *Food Production Strategies and Agricultural Development in Nigeria* (Tokyo: Institute of Developing Economies, 1982).
- , 'Implications of the Drift of Population to the South-West of Nigeria', in Bola Ayeni and Adetoye Faniran (eds.), *Geographical Perspectives on Nigeria's Development* (Nigerian Geographical Association, 1990), 152-166.
- Norman Uphoff, 'Assisted Self-Reliance: Working With, Rather than For, the Poor', in Lewis, *et al.*, *Strengthening the Poor* (1988), 47-59.
- , 'Fitting Projects to People', in M. Cernea, *Putting People First*, 467-511.
- M. Upton, 'Agriculture in South-West Nigeria', *Development Studies No. 3* (1967).
- E. O. Usoro, 'Colonial Economic Development Strategy in Nigeria 1919-1939: An Appraisal', *NJESS*, 19, 1 (1977), 121-142.
- Ashutosh Varshney (ed.), *Beyond Urban Bias* (1993).
- H. Vine, 'The Soil Resources for increased Production', *FaF*, IX, 1 (1948), pp. 21-27.
- , 'Some Comments on the History of Agricultural Research in Nigeria', *NAJ*, 1, 1 (1964), 5-7.
- T. Wallace, 'The Organisation of Labour for Agriculture, the importance of Gandu and Changing Labour Relations for the running of the Kano River Project', *Savanna* (1980).
- , 'The Challenge of Food: Nigeria's Approach to Agriculture 1975-80', *CJAS*, 15 (1981), 239-258.
- , 'Agricultural Projects and Land in Northern Nigeria', *ROAPE*, 17 (1980), 59-70.
- J. Wann, 'Travel in Ondo Province', *Nigeria*, 18, 1939.
- G. Wasserman, 'The Politics of Consensual Decolonisation', *The African Review*, V, 1 (1975), 1-15.
- J. W. N. Watkins, 'Historical Explanation in the Social Sciences' in Patrick Gardiner (ed.), *Theories of History* (NY: Free Press, 1959).

- E. R. Watts, 'Bureacracy and Extension', *East Africa Journal*, VI, 8 (August 1969), 37-40.
- Michael Watts, "'Good Try, Mr. Paul": Populism and the Politics of African Land Use', *ASR*, 26, 2 (1983), 73-83.
- Michael Watts, *Silent Violence: Food, Famine, and Peasantry in Northern Nigeria* (Berkeley: University of California Press, 1983).
- , 'Introduction', in Watts, *State, Oil and Agriculture*, 1-33.
- , 'Agriculture and Oil-based Accumulation: Stagnation or Transformation?', in idem, *State, Oil, and Agriculture*, 58-84.
- (ed.), *State, Oil and Agriculture in Nigeria* (Berkeley: Institute of International Studies, 1987).
- and Robert Shenton, 'State and Agrarian Transformation in Nigeria', in Jonathan Barker (ed.), *The Politics of Agriculture in Tropical Africa* (1981), 173-203
- and Paul Lubeck, 'The Popular Classes and the Oil Boom: A Political Economy of Rural and Urban Poverty', in I. William Zartman (ed.), *The Political Economy of Nigeria* (NY: Praeger, 1983), 105-144.
- and Thomas Bassett, 'Crises and Change in African Agriculture: A Comparative Study of the Ivory Coast and Nigeria', *ASR*, 28, 4 (1985), 3-27.
- J. B. Webster, 'The Bible and the Plough', *JHSN*, 2, 4 (1963), 418-434.
- John Weeks, 'The Vanishing Rural-Urban Gap in Sub-Saharan Africa', *ILR*, 127, 3 (1988), 271-292.
- Kate Wellard and James G. Copestake (eds.), *Non-Governmental Organisations and the State in Africa: Rethinking Roles in Sustainable Agricultural Development* (1993).
- Jerome Wells, *Agricultural Policy and Economic Growth in Nigeria 1962-68* (Ibadan: OUP, 1974).
- Delane E. Welsch, 'Response to Economic Incentive by Abakaliki Rice Farmers in Eastern Nigeria', *JFE*, 47, 4 (1965), 900-914.
- "White Ant", 'Practical Notes on the Yoruba Country and its Development', *JAS*, III (1902), 316-324.
- Jennifer Widner, 'The Origins of Agricultural Policy in Ivory Coast 1960-86', *JDS*, 29, 4 (1993), 25-59.
- , 'Single Party States and Agricultural Policies: The Cases of Ivory Coast and Kenya', *Comparative Politics*, 26, 2 (1994), 127-147.
- D. Williams, *Agricultural Extension* (Melbourne University Press, 1968).
- G. Williams, 'Taking the Part of Peasants', in Gutkind and Wallerstein, *Political Economy*, 144-180.
- , 'Nigeria: A Political Economy', in Williams (ed.), *Nigeria: Economy and Society* (1976).
- , 'Ideologies and Strategies for Rural Development: A Critique', in his *State and Society in Nigeria* (Ibadan: Afrografika, 1980), 135-157. Originally published as 'Rural Underdevelopment', in E. O. Akeredolu-Ale (ed.), *Social Development in Nigeria: A Survey of Policy and Research* (Ibadan: NISER, 1977), 251-275.
- , 'Agriculture in Nigeria, 1979', in his *State and Society*, 158-163.

- , 'Political Consciousness among the Ibadan Poor', in *State and Society*, 110-134.
- , 'The World Bank and the Peasant Problem', in Heyer, Roberts, and Williams, *Rural Development*, 16-51.
- , 'Marketing With and Without Marketing Boards: The Origins of State Marketing in Nigeria', *ROAPE*, 34 (1985), 4-15.
- , 'Primitive Accumulation: The Way to Progress?', *DaC*, 18, 2 (1987), 637-659.
- , 'Why is there no Agrarian Capitalism in Nigeria?', *Journal Historical Sociology*, 1, 4 (1988), 345-398.
- , 'The World Bank in Rural Nigeria, Revisited: A Review of the World Bank's *Nigeria: Agriculture Sector Review 1987*', *ROAPE*, 43 (1988), 42-67.
- , 'Why Structural Adjustment is Necessary and Why it doesn't Work', *ROAPE*, 60 (1994), 214-225.
- and C. E. F. Beer, 'The Politics of the Ibadan Peasantry', in Gavin Williams (ed.), *Nigeria: Economy and Society* (1976), 135-158.
- S. K. T. Williams, *Rural Development in Nigeria* (Ile-Ife, University of Ife Press, 1978).
- , 'Extension Services Within the Strategy of Agricultural Development in Nigeria in the 1990s', *Sixth ARMTI Lecture* (Ilorin, ARMTI, 1989).
- Christopher Willoughby, 'Ex post Project Evaluation- the Bank's Experience', *FaD*, 14, 1 (1977), 29-31.
- Jerome Wolgin, 'Resource Allocation and Risk: A Case Study of Smallholder Agriculture in Kenya', *AJAE*, 57, 4 (1975).
- Richard H. Wood, 'Tractor Mechanisation and Employment on Larger Private Mexican Farms', *ILR*, 122, 2 (1983), 211-225.
- James S. Wunsch and Dele Olowu (eds.), *The Failure of the Centralized State* (Boulder: Westview, 1990).
- Marc Wuyts, 'The Mechanisation of Present-Day Mozambican Agriculture', *DaC*, 12 (1981), 1-27.
- Shehu Yahaya, 'State Intervention versus the Market: A Review of the Debate', *Africa Development*, XVI, 3/4 (1991), 55-74.
- M. Yudelman, 'Agriculture in Integrated Rural Development: The Experience of the World Bank', *FP*, 1, 5 (1976), 367-81. Reprinted in Dams and Hunt, *Decision-Making and Agriculture* (1977), 444-464.
- , 'IRD Projects: the Bank's Experience', *FaD*, XIV, 1 (1977), 15-18.
- Paul T. Zeleza, *A Modern Economic History of Africa Volume 1: The Nineteenth Century* (CODESRIA, 1993).
- J. S. Zwingina, *Capitalist Development in an African Economy: The Case of Nigeria* (Ibadan: University Press, 1992).