

The London School of Economics and Political Science

The Vanishing Margin: An
Ethnography of State Water
Provisions in the Environmentally
Degraded Chinese Countryside

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Abstract

Based on 16 months of ethnographic fieldwork between September 2011 and December 2013 in rural Yunnan, this dissertation explores the political and technical project of making water available to human use in a time of drought and environmental stress. In particular, it focuses on the collective challenge undertaken by people in this part of China to keep the water flowing through their land and their communities against many and diverse odds. The main questions it addresses are: How is water shortage experienced and confronted by Chinese citizens? How is water circulated among different people and what kind of cultural practices and institutions do they create in the attempt to meet this very basic human need? What kind of social relationships and relationships with the environment ensue from this attempt? What does it take to keep the water flowing in present day, environmentally degraded rural China?

The overarching argument of the dissertation is that if fresh water still remains available in north-eastern Yunnan, this is not solely thanks to State policies or to the rational strategies adopted by public and private entities, but more significantly to the commitment of ordinary villagers and local officials who are doing their best to keep flourishing in what has now become a water-poor area. Because water keeps running thanks largely to the technical knowledge and dedication of ordinary people, it can be said that its management has a human dimension. Relationships of care and dependence, but also of mistrust and antagonism, are implicated in the active project of distributing and allocating fresh water for human use, inflecting the modalities and direction of its course. Securing water for human consumption is, above all else, a cooperative project: one pursued by people who are differently positioned across the social spectrum. By committing to this project, they also tighten and sustain human relationships, and envision the possibilities of a differently organised society in which water could be available to all.

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Introduction

Older Brother¹ and I were driving downhill from Pears Field Village towards Crooked Cart Township on a creaking minibus. From the van speaker – an odd, tubular device, wired in awkwardly at the back of the driving seat – Zhou Yiting, the popular Taiwanese singer, was shouting out the lyrics of one of her most famous cover songs, “On the Water Side” (*zaishuiyifang*). Older Brother – now singing along with overplayed virtuosity – was driving fast and carelessly, paying little attention on a road he professed to know blindfold. He and I had known each other for almost a year by then and, around that time, I had finally begun to enjoy the high-speed, fearless rides Older Brother generously gave me around Crooked Cart's countryside, as I followed him on his daily business. It was a dry, hot August day, and we had just finished eight hours of official training at Pears Field Village Committee, where Older Brother was studying to become a “legal mediator”. This was just one of the many part-time jobs Older Brother was jostling for, trying to save money for the upcoming arrival of his second baby and for a new van. The day before had been equally tiresome, as it was spent on drinking games with some businessmen from Zhatong Township. We both needed a break and for the first time in many similar car trips, we decided to stop the minibus before a bend in the road.

“Let me show you something”, said Older Brother while getting out of the vehicle. He pointed towards a stone staircase – unnoticeable from the road – that started right before the bend. The path went downwards, almost disappearing into the thick pine grove beneath. Just before the end of the path, as we bowed our heads to pass through a natural arch of scented marigold flowers, the sound of gurgling water hit my ears. On the left-hand side of the secret passage, a stream of crystalline water was pouring down from a cement platform. “This is secret water (*mimishui*)!” whispered Older Brother. “Pristine and ice cold (*bingliang, ziran de bing*). This water comes from one of the few mountain springs left (*shanquanshui*) in this area. It is a secret spot people here do not often show to strangers. I'll show you how to drink from it”.

He then moved to the side, grabbed the stem of a courgette flower growing out of the platform and, wielding it as a straw, started sucking water from the spring. “Ah! So tasty!

¹ Due to confidentiality agreements, throughout the thesis I will replace all personal names and names of places below County level with pseudonyms.

A whole different story from what we get in Crooked Cart! This is clean and unpolluted! And to drink from a flower! This is what my friends and I used to do when we were kids, back in Felicity Township. We were so free and unchecked (*wuezhide*) back then. We did as we pleased, always playing along the banks of the Leye River. The river does not flow any more (*liu bu xiaqu*)” – “Is there really so much difference from when you were a kid? I mean the waters and all the rest?” I asked. “Now we don't get to see any of it! One of the reasons I left this place during my twenties was because it was very difficult to make money from agriculture: there was not enough water to grow a profitable harvest. But I like to think at myself as an undercurrent (*anliu*): when water can't come up, it travels to different places, taken by different people. Things are not like that anymore: now everything has to have a reason (*youmudide*) to happen, water is brought here and there, to make money (*zhuaqian*)! This is the last spring we have, where water flows without doing any work (*liu ye meiyong*). Now, bring down the empty plastic barrels I have in the van — we'll take some of this water back home”.

*

The ethnographic sketch presented above is taken almost verbatim from my field diary, a yellow paper teenagers' notebook bought in a Kunming student store, where I chronicle the many months of busy fieldwork I spent in a township in north-eastern Yunnan, People's Republic of China (PRC). I start with this sketch because I believe it encapsulates most of the aspects involved in my personal circumnavigation of the so-called “Chinese water problem”, the reason behind my prolonged Chinese stay. As this dissertation will show in detail, during the last decades China has gradually become a paradigmatic case of unrestrained growth. Growth, that is, in all its traditional indicators: economic, infrastructure, population, commerce and consumption. Among the many, often positive consequences of this decades-long process of growth, there is one in particular that Older Brother was keen to point out that day. Water – the natural, irreplaceable, life-nurturing substance – had been transformed by this very process. Its flow had been, and still is important to keep the economy going, “to make money”. However, recruiting water in expansionary processes of economic growth is bound to have an effect on water itself. To sustain the Chinese growth, water had to be over-tapped, its flow interrupted, to the point that in the Crooked Cart area water had stopped flowing altogether. Because of this, human life and the environment that sustains it – argues Older Brother – are forever changed.

This thesis is an anthropological exploration of the collective challenge undertaken by the inhabitants of this part of China to keep the water flowing through their land, villages and communities, against many and diverse odds. The pace at which China has been growing in the last decades, and the speed at which its water sources have been tapped and altered, have made the problem of access to water salient not just for Crooked Cart's residents, but for all rural China. Against this background, this thesis will ask a series of questions relevant to how China, specifically, is responding to its water issues. What is the role of the Chinese state in enabling water access and sustainable use? What is the role of the common people? Given the particular history of Chinese communism, how is the Maoist ethos of universal access reconciled with the shift to a market economy geared to efficiency and sustainability?

As this thesis will discuss at length, the diminishing availability of irrigation and drinking water for rural communities is not solely and exclusively a Chinese problem, but it is becoming an everyday affair for billions of people throughout the world. Thus, in addressing the "Chinese water problem", this thesis will also raise very broad questions about the type of policies and particular human relationships required to make water available for human use. Is water for everybody? Are technical solutions the only ones needed to distribute water fairly and effectively? What makes people cooperate in the management of water? What type of environment and model of society are we creating as a result of the way in which we extract and distribute water?

This thesis addresses the set of questions set out above by employing qualitative and quantitative material collected throughout sixteen months of ethnographic fieldwork between September 2011 and December 2013 in Crooked Cart Township, Huize County – a drought-stricken, mountain community in north-eastern Yunnan. The main empirical finding of the thesis is that, if fresh water still remains available in Crooked Cart, this is not solely thanks to central state policies or to the rational strategies adopted by public and private entities, but more significantly to the commitment of ordinary villagers and local officials, who are doing their very best to keep flourishing in what has now become a water-poor area.

Beyond this, this dissertation offers three main anthropological contributions to the study of global water policies, of human cooperation, and of the state. The first contribution is a

reflection on global water politics, and in particular on the scope, goals and success of policies promoting sustainability in the domain of water management. By the end of the 1980s, the water management debate had decidedly turned its back on the expansionary, supply-side policies of the preceding decades. The new water management gospel spoke of sustainability, participation, empowerment and fiscal autonomy. As water provision is a costly business and water availability limited, “society” had to be left to its own devices in meeting the demand for water. Worldwide, water experts argued that market mechanisms would accommodate supply and demand in a more efficient and sustainable way. Based on this view, the price of water had to be raised according to availability and use, and water service agencies transformed into self-supporting, fiscally independent market actors. A first point this thesis makes in reference to this is that the new water management agenda, rather than promoting sustainability for all, seems to be merely repackaging water issues in a different form, discharging on the less affluent the burden of shortage.

To those for whom sustainability does not work, however, the new water credo promises relief in the form of “empowering”, “participatory” and “democratic” associations, like the Water Users Associations (WUAs) studied in this thesis. These associations are composed by farmers or by people who have a stake in the management of water at the “local” level. Sponsored by the state or by global water actors such as the World Bank, these associations are instructed to bring about sustainable water use, and to engender endogenous growth in impoverished, water-poor communities by involving people in the “democratic” governance of local water resources. The further point this thesis makes in this regard is an explanation of why WUAs may not be thriving as their supporters – in China and elsewhere – currently suggest, and an argument against the theory upon which the success of these institutions is predicated.

The second anthropological contribution advanced by this thesis is about the study of human cooperation in context. Cooperation is here discussed as an analytical template to study those relational techniques – i.e. working together and the production of commentaries on common projects, the public recollection of memories related to collective achievements, and the moralising of social life – which individuals may tap in to, so as first to envision and then bring about collaborations on collective projects, in this case on the circulation of water. Cast against recent anthropological and sociological studies of China, which have emphasized the apparent “disaggregation”, “corruption” and

“individualisation” of post-socialist Chinese society, this thesis will look for traces of surviving solidarity and effective cooperation. In Crooked Cart, villagers experience their condition as one of constant insecurity, where even a basic good such as water access cannot be taken for granted. Because of that, people in Crooked Cart are compelled constantly to re-envision the possibility of cooperating with others – to become reliant on others – in the attempt to meet their basic needs.

The study of the daily trappings of water extraction and distribution proves to be an insightful field for approaching the topic of human cooperation; of how people in China get together to achieve common goals. In my field site, cooperation on water management is produced by the display of a caring leadership, by quasi-legal mediation and by ingenious rhetoric and moral suasion. The convictions and emotions that Maoism, and its material legacy, are still able to arouse in many do also play a part. This is a history of collective efforts and imaginative solutions to communal problems that easily lends itself to the quest of living through Crooked Cart's present predicaments.

This third and last contribution of this thesis concerns the nature of the Chinese state and the role played by local institutions in the distribution of water. Throughout the thesis I will argue that the “reforming” Chinese state could be best conceptualised as a “co-acted” institution which, at the local level, functions and is capable of reproducing itself thanks to the considerable material and symbolic support given to it by common citizens. That is, seen from the remote Yunnanese countryside, the contemporary Chinese state seems to have lost much of its “authoritarian power”. As it progressively delegates state capacities to local citizens, increasingly incapacitated local state agencies survive by informally recruiting and indirectly leaning on the shoulders of the common people, who enrich the state with local traditions of government and moral norms.

This articulation of state and society – a juxtaposition of old imperial habits of government, the political practice of Maoism and the advent of neoliberal politics, as I shall argue – is apparent in the daily workings of local institutions providing common goods such as water. Rendered incapacitated by policies that prefer market-mediated interventions over direct state intrusion, local state agents can do little but rely on the cooperation of common citizens to fulfil their institutional mission to deliver water. Yet, it is partly thanks to the personal industriousness of these agents that the dull, petty,

backstage activities required by the administration of water are successfully carried out. In collaboration with common citizens, the reaches of the state become imbued with an ethical sensibility for the well-being of recipients of its services. Here, the state does not merely stand for exploitation, violence or bureaucratic caging – terms in vogue in the social sciences to describe the nature of the modern state – but for the commendable goal of providing crucial resources to its citizenry.

The remainder of this Introduction is divided into three parts. In **Part I**, I will briefly relate this thesis to the interdisciplinary scholarship of water studies. As anthropologists have approached this strand of scholarship from a particular disciplinary viewpoint and with a set of peculiar research questions in mind, I will briefly expose how anthropology has understood the study of water management, and show how the present work fits into this picture. In **Part II**, I will sketch out the institutional, legal and political context in which the present ethnographic study has been conducted. Finally, **Part III** spells out the methodology employed during fieldwork and give preliminary information about my field site. The introduction will be brought to a close by an outline of the following seven chapters.

Part I

Water and Society

The experience that the world's water is being irreparably exhausted, polluted or slipping out of control, as Older Brother pointed out to me, is increasingly becoming global. Millions of people are currently affected by the diminishing availability of fresh water. African and Asian women living in villages walk on average 6 km every day to collect fresh water from distant wells (OHCHR 2010: 10). Meanwhile, the world's agriculture is hit by aridification, that is, by the irreversible loss of water content. Nine million hectares of the world's land are rendered unproductive each year because of it², forcing farmers to leave their plots. For example, according to the United Nations University, nine hundred thousand Mexican farmers leave their country every year in part because of aridification (UNU-EHS, 2010: 19).

2 Data on soil loss are available at <http://www.fewresources.org/soil-science-and-society-were-running-out-of-dirt.html>. Last access 3/10/2014.

On the contrary, where water abounds, it no longer nourishes people. The Ganges, once the “purest of all rivers”, now represents a threat to millions of Indian citizens, as evidence suggests it has become one of the most polluted (Wohl 2010: Ch. 6). Water becomes a threat when the ordinary relationship that people have with it is subverted. For instance, prolonged periods of drought around the globe – or its opposite, unexpected floods – are no longer registered as uncommon occurrences. In 2014, southern England was caught unaware by the “reappearance of rivers not seen for 50 years”, as the “greatest monsoon” to hit England since 1766 assailed its coastline (The Guardian, 13 February 2014). During the same year but at the opposite end of the water issues spectrum, California's Lake Mead and the Aral Sea in Central Asia have almost completely dried up³. Finally China, as this thesis will discuss, is not exempt from the global rise of the water problem, with millions of its countryside dwellers currently lacking access to fresh water or being displaced by the creation of water reservoirs.

As our ordinary relationship with water becomes less and less certain, many around the world are demanding a reassessment of the ways in which we use water. Water is defined by the 1992 Dublin Statement on Water and Sustainable Development as a “commodity” – a scarce resource exchanged at the highest price to avoid its further depletion. Yet, the problem with water remains that some have plenty while others have not enough. Considering the issue of water availability as a fruitful starting point for political action, people in Bolivia, South Africa and Italy⁴ have in recent years taken to the streets to protest precisely against the “commoditization” of water. Part of the resentment towards market solutions to even up distributional gaps stems from the fact that at the local level, scarcity and other water issues mostly affect specific social groups, usually those who are already excluded from or only marginally integrated with market relations. These various

3 See media reports online at: <http://www.theguardian.com/sustainable-business/sustainable-fashion-blog/2014/oct/01/cotton-production-linked-to-images-of-the-dried-up-aral-sea-basin>
<http://www.ibtimes.co.uk/california-drought-before-after-photos-show-falling-water-levels-lakes-reservoirs-1461928>- Last access 3/10/2014.

4 The first decade of the 21st century has seen the rise of global social movements in defence of universal water access. The first organised popular movement was born in Cochabamba, Bolivia, famously fighting for free access to drinking water in underprivileged urban slums (Oscar 2004; Wutich 2010). South Africa became a second hotspot for civic engagement in water politics thanks to the struggle brought forward by the *Anti-Privatization Forum* (McKinley 2005) which organised a campaign for universal urban water access leading to an important judicial ruling, the *Mazibuko v City of Johannesburg*. This ruling has been later instrumental to the elaboration and adoption of a Human Right to Water by the United Nations (e.g. OHCHR 2014). Finally, the *Acqua Bene Comune* campaign, structured around the ideas of the Italian economist and social activist Riccardo Petrella (e.g. Petrella 2001), has brought in 2008 more than 26 million Italian citizens to vote against the privatization of the water sector in Italy (see Mattei 2013). The above is only a skewed selection of cases of what is a broader global phenomenon. For a general overview of such movements world-wide see Bakker 2010: Ch. 5.

movements stood for the proposition that water is an indispensable good for an adequate life (Wutich et al. 2012: 372), access to which should not be dependent on purchasing power. Also because of the mounting popular pressure, in July 2010, 122 countries (China included) formally acknowledged access to safe water as a basic human right in a UN General Assembly resolution (Gleick 2010)⁵.

Because of the increasing public and international attention to the issue, the notion that our modern way of life is having an impact on the world's fresh water and that the near future might turn out to be one with less fresh water for all has finally made its way into mainstream media⁶. The general public, however, is still grappling with the basic facts. How did we get to a water-poor present? The answer to this question starts from the recognition that water is not just an irreplaceable component of life – we all need to drink to survive – but also a crucial production input for human economies. Much of what we produce, from clothing to rice or meat, needs water in the manufacturing process. The problem is that we now use (i.e. consume and pollute) too much of it, and that our economies (China's among them) keep asking for more (Gleick 2000: 129; Strang 2009: 29).

Because of that, water scientists have started associating fresh water with oil – another important economic input. This analogy is drawn to suggest that the supply of water is – similarly to that of oil – affected by “peaks” and by subsequent “drops”, resembling the pattern of a bell-shaped curve. This curvilinear pattern, it is argued, is at the root of our present predicament. Water is a renewable resource, and thus it is by definition inexhaustible. “But not all water is renewable”, Peter Gleick says in a co-authored paper (Gleick and Palaniappan 2010: 161). Groundwater use beyond normal recharge rates, for instance, shows that overdrawing leads to irreversibly declining rates of production. As water annually abstracted from lakes, reservoirs and aquifers is several times larger (i.e. “peaking”) than these sources' natural recharge rates, production is bound to experience

5 See the official statement published on the UN meeting coverages website at <http://www.un.org/News/Press/docs/2010/ga10967.doc.htm>. In Yunnan, the government had stipulated a “use right to water” (*yongshuiquan*) that includes many of the provisions enshrined in the human right to water. I will discuss this point later in Chapter 5.

6 For example, see the online documentaries *A World Without Water* (<http://truevisiontv.com/films/details/80/a-world-without-water>), *A World in the Anthropocene* (<http://vimeo.com/66087863>) and *The Story of Bottled Water* (<http://storyofstuff.org/movies/story-of-bottled-water/>). Last accessed 19/09/2014. Award-winning English-language documentaries on the topic that have recently reached a wide audience are *Cadillac Desert: Water and the Transformation of Nature* (1997) and *White Water, Black Oil* (2011).

abrupt and irreversible drops in the short term, thus causing potentially lethal shortages in affected contexts (Gleick and Palaniappan 2010; Gleick and Heberger 2014).

The overconsumption of fresh water imposes serious costs on the environment as well. When too much water is taken from the environment, in fact, the environment increasingly loses its capacity to generate “services” (e.g. sustaining biological life). If one had to measure the cost that this loss inflicts on human societies (e.g. the loss of soil fertility), that cost would exceed the “value provided by additional increments of water use by humans for economic purposes” (Gleick and Palaniappan 2010: 161). In other words, humans are actively undermining their ability to produce food and energy in the long-term. This is what the water problem is ultimately about: the survival of “society” as we know it.

However, there is more. The diminishing availability of water for agricultural and domestic use is, according to the Pacific Institute, generating both inter- and intra-national conflicts over access to water. At the *international* level, disputes between upstream and downstream nations over access are becoming more numerous and taking longer to solve. Especially in Yunnan Province, where the data for this dissertation have been collected, the Mekong River (*Lancang Jiang*) has become an object of overt transnational contention, as it provides hydro-power to the Chinese economy while also crucial irrigation to all South East Asia, from Tibet to Vietnam (Molle, Käkönen 2010; Challaney 2011; Lazarus et al. 2011).

On the other hand, fighting over access (or more cunningly keeping access points secret as in Older Brother's case) is becoming the everyday reality not just of nations, but also of individuals. Regarding the *intra-national* level, the latest volume of the *World's Water* published by the above mentioned Institute dedicates one full chapter to demonstrate that the worldwide increase in reported cases of water-related conflicts – a two- to three-fold increase in the last decade – can be attributed to “water scarcity and competition for a fixed resource that is reaching peak limits” (Gleick and Heberger 2014: 168).

The public acknowledgement of the global water problem and the scientific consensus on its consequences are recent achievements. We now know that our relationship with water is changing because of the aggregated effect of an uncountable number of unsustainable acts. Because of that, cooperation among the most affected states is considered no longer

deferrable and cross-fertilisation between different regimes of management essential. Yet, a mere re-regulatory effort, however collegial, might not be enough. Radical alternatives to the present way we organise the flow of water might be needed. Anthropology may come to the rescue at this juncture, as its accrued, comparative knowledge in terms of the political and sociological forces inflecting human relationships with the environment might be probed for alternatives to the short-sightedness with which the planet's fresh waters have thus far been put to human use.

Indeed, anthropologists started approaching ethnographically various aspects related to the social use of water quite some time ago and from different angles. Here I will briefly summarise some of these works to position this thesis in reference to what truly is a far-ranging body of literature. Instead, in each one of the following chapters I will spend some time positioning that chapter's discussion in reference to recent anthropological and interdisciplinary debates relevant to the study of the relationship between humans and water.

Anthropological Approaches to Water

A first wave of anthropological works on water – here called “small-scale” for reasons that will be clear in a moment – was developed in critical dialogue with a group of rational choice scientists, most famously Mancur Olson and Garrett Hardin. Writing at the end of the 1960s, during the heyday of the American environmental movement, these two authors were trying to explain the origins of the perceived social and environmental crisis they considered imminent. In their works, they developed an analytical framework to identify problems ensuing from joint consumption of common resources (Olson 1965; Hardin 1968). Their theory suggested that members of large groups would not work towards shared goals (e.g. refraining from overdrawing or polluting water) unless individuals are provided with incentives to do so or are curbed by centralised punishment. Olson and Hardin opened the ground for what is now known as the *collective action problem* and the interdisciplinary study of *cooperation*.

The “small-scale” anthropologists aimed at critiquing the above theory by problematising what they interpreted as an over-simplistic understanding of people's behaviour in relation to the production and defence of common goods (e.g. Netting 1982; McCay and Acheson

1987; Wade 1988; Lansing 1991; Mundy 1995; Mosse 1997, 1999; Trawick 2003b; Acheson 2003; Acheson, Gardner 2010). Some of these works move to show how people living in decentralised or peripheral societies cope with periods of water scarcity (Metha 2001, 2006; Arons 2004). These studies expose the theoretical gains that may be yielded from providing a context to the mismanagement of common resources such as water. Locally, failures at cooperation might not arise from the lack of an incentive structure or of enforceable rules, but rather they could be strongly related to the historical dismantling of autonomous regimes of self-rule, as in the case of colonial India (see Metha 2001; Mosse 2003, for a summary see Mosse 2008 and Wutich, Brewis 2014).

These first ethnographies also demonstrated that, contrary to what was then generally assumed by international development agencies, nation states and the theorists working in the Olson and Hardin tradition, local people are indeed able to maintain enduring and fair patterns of water use without external intervention. When mismanagement occurs, they argue, it is often due to external intervention by profiteering elites or corporations capturing the greatest share of the resource pie at a local level (e.g. Wutich 2011). Various ethnographies of rural China should be mentioned here – even if only superficially related to the study of water *per se* – as they make a similar point for the “opening” Chinese countryside after Mao. During the 1980s, the capacity of peasants to autonomously control land and water sources was significantly encroached upon by local cadres seeking economic or political profit, with many instances of environmental damage ensuing from official intrusion (Judd 1994; Siu 1989; Potter, Potter 1990; Chen 1991; Zweig 2000; Ruf 1999, 2001; Guo 1999, 2001; Oxfeld 2004; Zhang W. 2005).

More recently, a second wave of ethnographic research on water, which we may term “grand-scale”, has started moving outside the confined realm of small-scale management by looking for the broader picture and unravelling the various dimensions contained in the human project of incorporating water into networks of exchange (e.g. Mosse 2003; Lemos 2008; Strang 2009, 2011; Anand 2011; Ballesteros 2012; Bear 2012, 2013; Wagner et al. 2013). Within this line of inquiry, water is not just a natural resource whose circulation could be hampered by mismanagement or by skewed appropriation, but rather a privileged *connector* of people. That is to say that water is not just a recipient of human attention but also an active agent that does a lot of “social work”, as it is able to bring people together around the problem of its circulation and use.

These studies show how cultural symbols are created around water services and infrastructure, political relations tightened, knowledge practices shared, power consolidated, and property regimes defined and short-circuited. Anthropologists of China such as Jon Flower (2009), Jing Jun (2000a, 2003) and Bryan Tilt (2010, 2012, 2015) are also taking part in the “grand-scale” study of water, demonstrating how, around and through water management, broader social and cultural processes take place. By paying close attention to the intrusion of the globally rising idiom of “water crisis” in various localities and to the workings of an increasingly larger number of state and non-state agencies involved in the reshaping of global water management practices, these works point at something that usually goes unnoticed in the public discussion of environmental problems: the creative and passionate engagement with human affairs that individuals and groups have added to the unravelling of global environmental processes.

The present thesis draws together in dialogue these two strands of the anthropological study of water. While showing ethnographically how Crooked Cart's dwellers confront collective action problems related to water and struggle to find local solutions, it also sets local attempts at keeping the flow of water accessible against the broader picture of Chinese and global water policies. The thesis concludes by arguing that anthropologists wishing to contribute to the debate over sustainability may take advantage of the discipline's interstitial position between the micro and the macro levels of analysis. From this position, anthropologists may actually see that the strenuous work of providing an answer to the most crucial of the environmental questions – how can we use less water and still have enough of it for all? – is currently being outsourced to the poor and the peripheral, perhaps with unexpected consequences.

Part II

Water Reform in China and its Implications for the State

In its pursuit of growth, the PRC has been described by many commentators as a political project founded on very large ambitions of societal control and transformation. From the “one child policy” to the quest of educating its massive population, the PRC has always “aimed high” in the attempt to bring about social change (Greenhalgh 2008; Kipnis 2011; also Bakken 2000: 50-72). Water management has been part of such “large ambitions”

since its inception. During the period 1949-1979 (the Mao era), more than forty thousand dams (Hathaway 2013: 13) were built on Chinese territory, producing a threefold increase in the extent of land under irrigation⁷. While astonishing in its numbers, the scale of infrastructural development in Communist China merely reflects what was a worldwide trend for that period (see Reisner 1993, Strang 2009). By the 1950s, mega water diversion and accumulation projects had become internationally synonymous with modernity and economic development – three of the biggest American dams were in fact built around that decade (e.g. Swyngedouw 2015).

China's economic rise was to a large extent entwined with the pursuit of developing a supply-led water sector. Yet, already in the 1960s, the unintended consequences of water resource development were visible to many high-ranking members of the Party. Zhou Enlai, Prime Minister of the People's Republic from 1949 to 1976, was often praised by my research participants working within the Yunnanese water bureaucracy for having been the first politician to firmly object to the expansionary, water-accumulating supply-side mentality that spellbound the hydro-engineers of the nascent socialist state. “I've been told by my doctor,” Zhou said once during an official meeting in 1962, “that if a person goes without eating for a few days, no major harm will result. But if one goes without urinating for even one day, they will be poisoned. It's the same with land. How can we accumulate water and not discharge it?” (Fu 1998: 23)

In 1973, Zhou took several steps to launch a national environmental protection apparatus (Economy 2010: 98-99), that would ultimately lead to China's decision, in 1979, to constitutionalise the notion of sustainability (Palmer 2000: 67) and make water pollution a criminal offence. However, despite Zhou's dedication to the cause of a comprehensive approach to the exploitation of the country's water resources, little change happened during the heyday of Maoism. Rivers kept being dammed, boreholes drilled, irrigated land increased exponentially and the environment degraded for the sake of hyper-development (e.g. Huang et al. 2006: 1, 2008: 171; Calow et al. 2009: 229).

Then, the end of the Cold War era brought a gust of fresh air to international water politics. As Peter Mollinga has noted: “at the particular juncture of the (early) 1990s, there was a

⁷ See the 2002 FAO report on China's development and investment in land and water by Zhou Yinghua available at <http://www.fao.org/docrep/005/ac623e/ac623e0d.htm#TopOfPage>.

confluence of three 'big ideas' about how to undertake water resources management in a better, more comprehensive and development enhancing way, bundled with financial aid and political and economic reforms” (2010: 513; also Baviskar 2007: 2). The first two ideas were directly related to the end of the Cold War, namely that the market and Western-style democracy had proven to be an unmatched solution to problems of coordination and goods production in an increasingly interdependent world. To those, the 1992 Rio Earth Summit added the idea of *sustainability* – the notion that capitalism could fix its environmental damaging externalities by transforming sources of waste, pollution and inefficiency in value-generating, market-based activities, thus making of the “green economy” a viable (albeit short-termed) solution to unsustainable environmental practices (Harvey 1996: 367-381).

Agitated by this “liberal” reformist spirit, water sector practitioners and political authorities working on water provision worldwide started, at the beginning of the 1990s to revise the customs and habits of existing water institutions. This was in the attempt to identify practices that did not confirm to the principles of *market, democracy* and *sustainability*. Looking hard at the water sectors of ex-socialist and Third World countries, water experts eventually found what they were looking for. There, local water bureaucracies had become too big and wasteful, to the point of prioritizing their own reproduction at the cost of the quality and sustainability of their services (Mollinga, Bolding 2004; Bruns 2004). What is more, grand-scale projects built more or less everywhere throughout the previous decades were found to be technically and economically dubious. Something needed to be done.

In China – one of the countries identified by the water reformists to be in need of “technical” assistance – something began to change by 1988 with the promulgation of the PRC Water Law (*Zhonghua Renmin Gongheguo Shuifa*)⁸. This was the period during which a new generation of leaders, most of them trained in hydro-engineering, was slowly coming to the fore, replacing the radical, slogans-bound politics of the 1960s and late 1970s (e.g. Zweig 1989). This rise to power culminated with Hu Jintao and Wen Jiabao – a hydro-engineer and a geologist respectively – who ended up occupying the highest political positions in the PRC between 2002 and 2012 (see Li C. 2001: 116-117). It was

8 The Water Law of the PRC is available in Chinese at: <http://baike.baidu.com/view/34142.htm> and in English at http://english.gov.cn/laws/2005-10/09/content_75313.htm. For scholarly analyses of the Law see Hu 2006 and Wouters et al. 2004.

during their administration that the latest revision of the Water Law was promulgated, in 2002. Admittedly, the Chinese public and its politicians have eventually come to realise that decades, if not centuries, of hard-nosed expansionary water politics have brought devastating consequences to the country's environment (Economy 2010: Ch. 5). Also thanks to the commitment of several Chinese environmentalists such as Tang Xiyang, Dai Qing and He Bochuan, who shaped the public discussion on the state of the Chinese environment during the 1980s⁹, and more recently of Wang Canfa and Ma Jun¹⁰, China has partially grown out of its traditional supply-side management. This thesis sets out to study the social implications of this paradigm shift.

Rethinking Governance

Let me start from the institutional framework governing water and from its reconfiguration. The 1988 Water Law (WL) introduced a “licence system” to organize the allocation, distribution and use of water resources. Under this system, all water present on Chinese territory was formally owned by the state. The state would then proceed to allocate various water-related functions – starting with abstraction and ending with water treatment – to specifically designed and hierarchically organised state departments. Thereby, the Ministry of Water Resources (MWR) was established and given apical powers to allocate water-management tasks to lower-level government agencies (Wang X. 2007: 203).

According to Chinese scholars, politicians and their World Bank and Asian Development Bank consultants – who provided Chinese reformers with useful examples of “successful” structural adjustments in the world's water sectors (Webber et al. 2008: 617-618; for two examples see Speed 2009a; Yang et al. 2013) – the 1988 system had various problems, among which the lack of law enforcement, conflicting incentives, limited information and

⁹ Tang Xiyang is a former *Beijing Daily* reporter and one of the founder of China's *Green Camp*. Dai Qing is a former reporter of the *Guangming Daily* and an environmental activist. Finally, He Bochuan, a former lecturer in the Department of Philosophy at Sun Yat-sen University, is the authors of the recently banned book *China on the Edge*. See Economy 2010: 145-153.

¹⁰ Wang Canfa is a Professor of the China University of Politics and Law and the creator of the Centre for Legal Assistance to Pollution Victims (CLAPV). He is one of the minds behind the institutionalisation of the "environmental courts" in China. One of this court operates in Yunnan and had by 2009 heard at least 12 cases on environmental law violation. Some of these were about the pollution of the Dainchi Lake. (Economy 2010: 119-120). Ma Jun is the author of *China Water Crisis* (2004), where he demonstrates that supply-side water management does not solve context-specific shortages, but drives consumption further up, contributing to the long-term depletion of water resources.

costly monitoring were those blamed for mismanagement and water scarcity. Of particular concern were two of the Mao-era principles of supply-side water politics: the under-pricing of water services and the top-down planning and implementation process that served the command economy. I will deal first with how the 2002 Water Law moves to resolve the latter issue, leaving the question of under-pricing for Chapter 2.

The 2002 revision advanced a more articulated and integrated approach to water governance (see Biswas 2005; Rahaman, Varis 2005: 16; Molle 2009: 491; Mollinga 2010, Nickum 2010: 542; Pia 2014). It addressed the issues of top-down management – namely its inability to implement centrally defined regulations – by dismantling the administrative chain of command and by distributing power along the ensuing network of state agencies. Seven River Basin Commissions – one for each of the seven major Chinese rivers – were established by law under the MWR and accorded with planning and monitoring powers (Liu, Speed 2009: 199-200), while Irrigation Districts (ID) were given the possibility “to operate on commercial rather than 'public provision', principles” (Calow et al. 2009: 232), thus enlarging the amount of possible water uses, and thereby recipients, to which irrigation water could be allotted.

With the pluralisation of the administrative landscape, *cooperative* management, as opposed to top-down command, made its way into the system. According to the principle of “devolving rights” (*fangquan rangli*) – the official recipe adopted by the reform-minded state emerging out of Maoism (Lin 2006: 266; Wang H. 2009: 23; Oi 1999) – the administrative rights to abstract, allocate, distribute, use, treat and transfer water allotments are vested in different state ministry departments (see Shen, Speed 2009), each one of which pursues a different water agenda (Dai 2012: 107-108).

According to the 2002 WL, rights ought also to be devolved downward to the village level. Below the level of national politics, provincial, county and township bureaus operate. A fuller institutional map of the various local offices where I conducted observant participation and interviews will be given in Chapter 2. For now, I just want to note that because township-level offices – such as the Crooked Cart Township Water Bureau – are jointly supervised by different departments whose mandate is to perform various and often conflicting *functions* of water management (e.g. agricultural development vs water conservancy vs energy production), at the village level, the local water bureaucracy is

often caught into administrative conflicts which they do not have the powers to avoid or solve.

Rethinking the peasantry

A second issue with top-down management detected by reformers is the alleged submissive role the old system ascribed to the greatest stakeholder in the water supply: Chinese peasants. Under Mao, farmers were thought of as “agents for change” only under the all-powerful guide of the Party. But what if the Party was wrong when it came to water management? Would Chinese peasants be able to mend their ways and adopt different water management practices – hopefully environmentally sustainable ones – without anyone telling them how to do so?

This particular debate was best summarised by the then popular television documentary *Heshang* (River Elegy), broadcast in China simultaneously with the promulgation of the first Water Law in 1988. In the documentary – “typical of intellectual elite activists’ ignorance of peasant traditions”¹¹ – the subaltern and passive role of the Chinese peasantry was likened to the flooding of the Yellow River. The idea of the author, Su Xiaokang, was that throughout Chinese history, the landlocked Chinese peasantry had never been able to change its traditional mode of production, conducive to stagnation and environmental degradation, but only to sporadically rebel – an unpredictable outburst of violence similar to the cyclical floods of the Yellow River – in time of ecological crisis (Day 2013: 30-44). Inhabited by a backward (*luohou*) and low quality (*suzhidi*) population (see Kipnis 2006) – by “dead brains (*sinaojin*)” (Liu X. 2000: 6) – Chinese history offered no solutions to the problem of sustainable development. Its elite had to look away from China to break the socio-economic ceiling erected by centuries of petty peasants' involutionary agricultural practices (see in particular Huang 1990). If China wanted to move away from a path leading toward social collapse, *Heshang* warned, reformists needed to look elsewhere for alternatives.

Indeed, reformers did look elsewhere – Westwards – searching for a model that could help them carve out from China's land-fettered peasant an entrepreneurial farmer, one that would rationally try to make agriculture more sustainable, by investing in technological

11 Stephan Feuchtwang, personal communication, 21/9/2014. See also Feuchtwang 2003.

change and thereby increasing water efficiency (see Gleick 2000). At the 1992 Dublin World Conference on Water and Sustainable Development it was argued that one practicable way to force “sustainability” into the minds of water users was to make of water an economic good – i.e. making the quality of its demand visible through a differential pricing mechanism (WET 2006; FAO 2006; Brown 2009: 31-51; Barnes 2014). This was a difficult argument to digest for the PRC, where tradition stood rather in favour of cheap water for all (i.e. the supply-side mentality) and whose largely impoverished population could hardly be served by such transition towards market-driven supply.

Recently, however, China did initiate a reform of the price of water, and opted to link it to additional reforms of its national water ownership framework. The move was made to liberate water from top-down management (Hu 2006). The key idea was the following: if water is put legally into the hands of users – who can then decide to trade it for a price – the rising price of water will be counteracted by the possible profit people could make by selling water back to needier users (Speed 2009b). Seemingly, this would elicit all sorts of calculative efforts from peasants who will start maximising their own utility by saving more water and invest money and time in efficient material infrastructure and institutions. Sustainable development would then follow as a mere by-product of a water sector composed entirely by rational farmers (Merrey 1998: 49). Simply put, transfer rights – i.e. the opportunity to exchange saved water for a price – had to be given to peasants to turn them into environmentally sustainable agents.

Transfer rights are now slowly being tested in various places around China, in preparation for their nation-wide implementation over the following years¹². At the time of fieldwork however, water bureaucrats working at the Huize Water Bureau resisted the idea of implementing transfer rights under their own constituency, mainly on the ground that they “did not adapt to the conditions of our particular place (*bu heshi women xiaodifang de tiaojian*)”. Their suggestion was rather to accompany the pricing up of water with the creation of WUAs over the Crooked Cart territory.

As Chapter 4 will discuss in detail, WUAs are a second and widely endorsed component of political experiments to trigger efficient and sustainable water markets. The contention

12 One case study in Xinjiang is reported in Yuling, Lein 2010. See also a Reuters' report at <http://www.reuters.com/article/2014/07/24/china-water-environment-idUSL4N0PZ2DJ20140724>. Last access 13/10/2014.

here is that the state could help peasants make the transition towards sustainable and efficient water use by allowing them to acquire power over water management through formal, non-state associations. Supply-led water management – as the reformists' gospel puts it – failed at empowering farmers to become the type of actor needed for the creation of a sustainable water market, rendering them dependent on the state. Rather than waiting for the next water conservancy project to be carried out by the state, then, peasants should find effective ways to *cooperate* among themselves (Merrey 1998: 48), so that the endogenous (i.e. non-state organised) maintenance of water infrastructure and institutions could be achieved. The introduction of WUAs – democratically-run groups of water users entrusted with the capacity to collect fees based on the water services they provide (Ou et al. 2004: 234) – is imagined to produce just the right type of incentive peasants need to invest in agriculture and to conserve the resource through time.

Rethinking Water

The final aspect emerging from the Chinese water reform has to do with the materiality of water, or better with the rapport between the human desire for water and its physical qualities. As the human geographer Erik Swyngedouw puts it, modern water governance makes of water a “hybrid” substance (1996) – half-natural and half-human. Water is not just a particular configuration of matter, but under the all-encompassing governance system that reproduces its availability in modern societies, it becomes enmeshed with human expectations and plans.

The problems of modern water management stem from a mismatch between water's physical characteristics and human plans for it. When water is brought under human control, it resists in three different ways. It resists unrestrained tapping because its availability is limited. It resists easy transportation because it is bulky. Finally, it resists absolute control because it is “transient” or fugitive, that is, difficult to capture (see Savenije 2002). Now, the water sector reform understands water to be a limited economic good that should be delivered at the highest price possible to optimise its consumption. For that to be possible, water needs to be rendered movable, exchanged from the lowest to the highest return rate and constantly circulated and consumed at the most efficient rate possible. Only, given the above, water does not lend itself easily to such a practice, rather being – as Karen Bakker puts it – “uncooperative” (2003). I will spend more time on this

idea in Chapter 2.

Under modern management, the physical qualities of water are responsible for another set of issues Chinese water managers have to deal with. Because water is limited and fugitive, it presents serious obstacles to the attainment of distributive practices that could be considered both fair and enduring. That is, Chinese water experts are starting to think of water as presenting the typical problems of a *common-pool resource*. Let me explain briefly what I mean by that. Elinor Ostrom, a scholar awarded the Nobel Prize for Economics in 2009, has to be credited for changing how environmental experts, various governments and civil rights campaigners think about the governance of natural resources, and of water supply systems in particular (see Ruf 2001; Oscar 2004; Strang 2005; Breda 2005; McCarthy 2005; Bakker 2010; Mattei 2011; van Aken 2012). In some of her major contribution (Ostrom 1990, 1992), Ostrom defines water and water infrastructure as a *common-pool resource*. This is a technical term suggesting the management of water by humans is – contrary to other goods – inherently *rivalrous* and characterised by *non-excludability*.

Ostrom employs this other pair of specialised terms to describe the conundrum emerging from the joint use of water. First, the consumption of water made by one user necessarily prevents its simultaneous consumption by other users (i.e. rivalrous consumption). Second, due to its flowing nature, or “transiency”, it is difficult to exclude the provision of water users who are not willing to take the necessary steps required to guarantee future availability (e.g. contributing to infrastructural maintenance; restraining waste). If water and its infrastructure are indeed *commons* – i.e. having the above characteristics – people benefiting from their availability face the multifaceted problem of how to conserve the resource *stock* (e.g. the absolute quantity of water) while fairly distributing its *base* (e.g. the relative availability of water). If water is limited, how do we divide its base among *all* cooperating users and not just among *some* of them – perhaps among those who are better positioned to acquire control over it? Moreover, if water is limited, how do we meet actual demand without depleting its stock? In her most famous work, *Governing the commons* (1990), Ostrom demonstrate that many decentralised societies have found solutions to both these questions. To do that, they have created stable institutions, legal rules and technological devices, which are designed to meet societal demand while making the latter stable in time.

Part III

Personal Engagement, Fieldwork and Methodology

The anthropological project here presented has long been in the making. While the ethnographic materials on which this thesis is based were collected during the period from September 2011 to January 2013¹³, my interest in China and in particular its water problem goes further back in time. I visited China for the first time in 2005, while on a one-semester exchange programme at the *Beijing Foreign Language University (Beijing Waiguoyu Daxue)*. There, hosted by one of the university's student dormitories, I had my first – quite undramatic – experience of water scarcity. Simply put, the dorm's public showers were coin-operated. Every 10 *fen* bought you thirty seconds of water. At the time, that simple discovery left me curious about why such a solution would be needed. Later that year I received my BA in Chinese Studies from the Venice Ca' Foscari University and moved to study anthropology. The coin-op showers still lingered on my mind, asking to be taken seriously.

During two subsequent field trips – the first one in Yunnan in the summer of 2006 and the second one in the Beijing area between September 2007 and February 2008 – I tried to make up my mind about those showers, and more broadly about the extent to which water constituted a scarce resource for China. As part of my MA in Anthropology, I spent a few months in Lingshui village, Mentougou District, Beijing Municipality, hosted by a Chinese family. This was during the “worst drought in 50 years” as the Beijing Government described it, and in the midst of the “cloud seeding” (*zhongyun*) campaign, i.e. the government's attempt at inducing rain by shooting chemicals directly into clouds.

Hosted by the Lius, a local family, I discovered the dramatic consequences that living without easy access to fresh water could produce on people's lives and their bodies. Winter in North China can be tough, with external temperature often plummeting to -20C°. Flowing water was nowhere to be found, which meant that the Liu family and I inevitably neglected our personal hygiene for almost two months. I still remember my face and hands

¹³ Fieldwork was carried out continuously for 14 months between September 2011 and December 2012.

Two months of supplementary fieldwork (October 2013–December 2013) were later added thanks to the generous grant of the Jack Wright Memorial Trust Fund. This project has also been funded by the LSE Postgraduate Financial Support Scheme, the Chinese Scholarship Council, the Universities' China Committee in London and the Chiang Ching-kuo Foundation.

becoming drier than ever before, and my hair thinner. Yonglan, my stepmother in Lingshui, used to complain a lot about this, saying that drought was making her uglier (*ganhan rangni bian choulou*). Because farming was basically impossible due to the lack of water, most of the people in Lingshui were either unemployed (*wushi*, a Chinese word that I had never heard until then) or resorted to becoming miners, a job most of them genuinely hated. Unwilling to follow local miners into their pits, most of my research time was thus spent with a local man who had made a career of buying water at the nearest town (some 30 km away) and selling it back to water-poor households.

As a student of anthropology, my interest at the time rested not so much in studying the causes of drought, but rather in discovering the social determinants of the experience of drought itself. After all, three years before, as a student in Beijing I did have access to water, no matter how short it was in supply. I simply needed to pay for it. Therefore, what I was discovering in Lingshui was that the experience and consequences of drought were unevenly distributed across Chinese society, with its rural population being the most affected group.

The present work should be understood as a second, more detailed, comprehensive and conscious ethnographic investigation on my part of the Chinese water problem. One of the things that differs the most from my 2008 research is that this second project has been carefully planned for. The fieldwork for this thesis benefited from a one-year scholarship offered by the *Chinese Scholarship Council*. Thanks to this scholarship, in 2011 I spent the first month and a half of fieldwork at the *Beijing China Agricultural University (Zhongguo Nongye Daxue)* under the supervision of Prof. Zhao Xudong, a legal anthropologist who had previously worked on water disputes (e.g. Zhao 2003). During this period, I discussed my research project with his doctoral students and talked about possible research sites. In my research proposal, submitted to the LSE Anthropology Department the previous June, I had discussed Gansu Province as a viable field site. In October 2011 however, a very unsuccessful preliminary visit made me reconsider that choice. The local authorities of Zhangye City, Gansu Province were unimpressed by my credentials and refused to assist me in a search for possible field sites in the countryside.

Once back at *Nongda*, I reshuffled my options. All things being equal, Yunnan appeared as a valid alternative. For one, I had already been there, travelled across its countryside and

familiarised myself with its capital Kunming. Moreover, according to the available literature, Yunnan was at “high” or “extreme” risk of water stress.¹⁴ Its northeastern countryside in particular had in recent years been experiencing major problems with water availability and the local government had already started experimenting with WUAs and other targeted water sector reforms (see Chapter 2). In early November 2011, I thus decided to relocate to Kunming. From then on, I made repeated visits to northern Yunnan, finally selecting Crooked Cart, a township under the Huize County Government, 300 km north of Kunming. Crooked Cart Township, on which I will give more details in the chapters to follow, is located in an area recently affected by drought and one that had cherished an important history of water infrastructure development, as this area was hugely dammed during the Great Leap Forward. Finally, water politics had also to be particularly salient in the area as the various dams of Huize County were currently being converted and integrated into the Provincial hydroelectricity grid (see Harwood 2013: 46), hydro-power representing a soaring share of the provincial economy and a key asset for the future development of all south-west China.

During a first meeting organised with the Huize County Water Office (*Huizexian Shuiwujū*) in early November 2011, my project received enthusiastic as much as unexpected support from the officials involved in the local water sector. The Head of the Office, Mr. Wang put me in contact me with Mr. Pu, the newly appointed manager of a new, state-owned enterprise called Best Water Co., which coordinated the management of water throughout Huize County. Finally, Mr. Pu introduced me to the staff of Crooked Cart Water Service Building (*shuiwusuo*) – a local state agency in charge of the distribution of drinking and irrigation water in the area – with whom I shared the following fourteen months of my life. A few weeks after my arrival, I was given a room in the Bureau dormitory, and thereafter I was allowed to carry out participant observation among the Bureau's members, taking part in their meetings, escorting them during on-site inspections and assisting in water fee collection and the construction of water infrastructure.

This part of my research also entailed tracing the network of state agencies that were involved in the distribution of water in the county. For this reason I spent some time in various locations within Huize County, interviewing the personnel of a number of water-

14 Water stress occurs when the demand for water exceeds the available amount during a certain period or when poor quality restricts its use. See Maplecroft's 2011 Water Stress Index at http://maplecroft.com/about/news/water_stress_index.html. Last access 6/10/14.

related offices and collecting a total of 270 electronic documents (38.9 MB) pertaining to the governance of water. To this end, I included in my own investigation the following institutions: the Huize Water Office; Crooked Cart People's Government (*Renmin Zhengfu*); various Village Committees (*cunweihui*), specifically those of Bamboo Forest Mouth Village and Stone Dragon; Sangou County Government; The Great Leap Forward Reservoir Office; and the state-owned Best Water Co. All these institutions were involved in the distribution of water in Crooked Cart, and maintained different functions within the water network, as explained in Chapter 2. Their study thus provided the information essential to understand the full scope of water distribution in the locale.

A critical part at this stage of my investigation was played by the weekly visits I paid to three WUAs in the area operating in Bamboo Forest Mouth, Sangou County and Pitch Black Plateau Village. Here, I was welcomed to attend meetings and to engage board members in in-depth discussions about their associations' goals and history. Long-term participant observation within all these organizations was key to secure the confidence needed to discuss the most contested aspects of water distribution.

While in Crooked Cart, I carried out twenty structured interviews with water sector officials, for a total of 19 hours and 30 minutes, discussing their daily occupations, career choices and life trajectories. These interviews were specifically designed to elicit personal reflections on the significance of managing water for poor communities and on the alleged moral dimension of this task. Questions about how water is appropriated and owned were also discussed, with the aim of recording technical observations of the property regime operating on water. This gave me the chance to probe more deeply into state agents' perceptions of their own task, shedding light on the interplay of ethical and technical aspects in the allocation of water.

Furthermore, I spent a good portion of my time with local farmers and entrepreneurs, helping them planting rice, selling products at the local market, or just passing time together. During this time, I asked villagers to evaluate the local water management frameworks, WUAs included. These discussions proved crucial to understand the amount of distrust felt locally towards the government and towards its water projects, and to reveal what common citizens do to secure water access despite the local government's repeated failures at providing local households with fresh water.

Quantitative data about household income, education and level of trust towards the local WUAs and the Township government were collected through a thirty-household questionnaire. The survey also incorporated questions about the mediation of disputes, producing data on the number of open conflicts on water among households and on the strategies adopted to solve them. As shown in various chapters, the analysis of this survey has been crucial to make important points about the state of water provision in the area. For instance, the correlation of the survey data on household income with data from the Water Bureau's water bills register allowed me to determine the weight that annual water expanses have in the annual budget of low-income families in the area. This figure, usually used by international bodies monitoring the implementation of the “human right to water” in developing countries, tells us the precarious situation in which many Crooked Cart dwellers live, despite the official state propaganda arguing for the contrary (see Chapter 2).

A second important quantitative task has been to evaluate the principles and the methods whereby state officials prioritize the allocation of irrigation and drinking water to a particular village over another. This was done through structured interviews in the form of a survey with the personnel of the Huize Water Office and of the Great Leap Forward Reservoir Office, along with the 27 village Party Secretaries who are involved in the distribution of water in the Crooked Cart area. This task, carried out during supplementary fieldwork between October and December 2013, helped detect discrepancies among the different rationales employed. Some officers prioritize growing specific crops, other securing water access for cattle and families, revealing the many and often competing rationales employed by local authorities to establish to whom to allocate water. The original model used for the questionnaire and the structured interviews will appear in the Appendix to this thesis.

Thanks to the good relationship I developed with Mr Nian and Older Brother, two appointed dispute managers, I was also given the rare chance of accessing the official dispute files stored in the Disputes Archive of Bamboo Forest Mouth Village. The data thereby collected – presented in Chapters 6 and 7 – expose the level of ongoing conflict fomented by water use in the community. Furthermore, during fieldwork I was allowed to follow ten different cases subject to third-party mediation: seven in Bamboo Forest Mouth and three in Pear Field Village. Direct observation of mediated cases provided first-hand

data as to how water-related disputes are discussed, the discursive and legal techniques used to reach settlement and the plaintiffs' strategies and motives leading them to apply to dispute resolution. This material show how, during mediation, enforceable rules for the upkeep of water infrastructures and their management are jointly created by local officials and disputants.

One comment should be made on the language used during fieldwork. Most of my research has been conducted in a mixed parlance of Mandarin Chinese (*putonghua*) and local dialect (*huizehua*). While I had previously acquired a good competence in the former through formal study and repeated visits to China, the latter remained largely impenetrable for the first four or five months of my stay. When struggling to understand what my research participants were saying, I often asked them to switch to *putonghua*. This will be evident when I will quote directly from audio-recorded interviews or annotated conversations, where key sentences will all be in Mandarin. However, where an equivalent Mandarin term was, for whatever reason, not readily available to my interlocutors, I noted down the dialect form of it, albeit without looking for a standardized system of transliteration. In this thesis, these dialectal words will be preceded by the diacritic mark “Dial.”.

Finally a word of caution on two aspects only superficially covered by this thesis. The first is gender. A partial reason for that has to do with my own gender. Except when busy with farming, Crooked Cart women were very reluctant to spend time with me alone. When in mixed-gender groups, they usually let men talk. My disputes archive also under-represents women's voices. Of 48 recorded cases, the number of men involved is 58, while that of women only ten. There have been notable exceptions – especially Old Z's cousin, a middle-aged woman who lived alone on her migrant husband's land. It is thanks to her detailed explanations of rice planting and the filling of paddies that this thesis will be able to show the involvement of Crooked Cart farmers in the management of irrigation water. Women were also conspicuous by their absence in representative or otherwise authoritative positions. But again, there were important exceptions. The Head of Qujing Water Bureau, the highest ranked official I met during fieldwork was indeed a woman, as she was the Bamboo Forest Mouth Village Party Representative.

On a different note, “ethnicity” or the lack thereof, has for long time escaped my

ethnographic gaze, and this is more because of my interlocutors' manifest lack of interest in the subject than because of my unwillingness to ask. According to official data updated to 2000, the two main non-Han ethnic groups residing in Huize County were the Hui and the Yi, representing respectively 2.3% and 2.0% of the whole population¹⁵. Yi sounding village names were fairly common in the area, and at the local Crooked Cart market, one could easily spot the black turbans of Yi or Miao sellers. Many of my research participants nonchalantly pointed out that “everyone is a little bit Yi here (*zheli women dou shi banyizu*)”, because of intermarriage (*waihun*). And yet, the local bureaucracy, even when directly enrolling “ethnic” personnel – here I am thinking of a Tibetan member of Quagmire Crossing Water Bureau – was manifestly disinterested in the issue¹⁶. Rather, the bureaucracy worked on economic parameters to identify households in need. My disputes dataset also shows only two cases involving Yi people. Nonetheless, some partial evidence suggest that individuals belonging to minorities were severely and perhaps disproportionately exposed to the effects of water shortage. The Yi and Miao nationality were often called “mountain people” (*shanren*) by Han interlocutors, because their villages were located in secluded mountain valleys, where “there's no rain nor flowing water”. Moreover, County statistics on employment suggested that the majority of non-Han people were mainly employed in farming (89.9% of employed people).

Thesis Outline

As stated at the beginning of this Introduction, this thesis addresses three overarching yet interrelated aspects of the collective projects of making water available to Chinese citizens: water politics and developmental projects; the relational techniques of cooperation; the nature of the Chinese state and the role of its local institutions. Yet, these three aspects do not exist in isolation but mutually influence one another. In fact, all the chapters of this dissertation will speak directly to all three aspects simultaneously. However, the way this thesis is organised will propose a progression of topics starting from issues of water politics and the state, passing through the study of cooperation as it unfolds within developmental projects, to finally consider how state policies and laws might determine a

15 All China Data Center, *Huize County Population by Sex, Occupation and Nationality*, available online at chinadataonline.org. Last access 27/2/2015.

16 Certainly, in any given village within Crooked Cart's jurisdiction, the non-Han population would never be over 30% of the total, and the great majority of the statistical documents in my possession do not make reference to ethnic minorities as such. Crooked Cart's Water Bureau, 2011, *Nongcun Jiben Qingkuang ji Nongye Shengchang Tiaojian* [Background Information on Rural Villages and on the Conditions of the Local Agriculture].

rupture in cooperative relationships and how these are then recomposed around the management of water.

In **Chapter 1**, I will provide an historical analysis of Chinese water management practices, showing their underlying political economy as well the extreme consequences that centuries of supply-led management have had on the country's environment. This chapter should be read in conjunction with the second part of this Introduction where I sketched out the comprehensive reform of the water sector in the PRC. China has maintained for centuries a supply-side bias. This bias is now reputed to be at the root of the serious economic and health-related problems increasingly experienced by many Chinese citizens. The reform, intended by its proponents to tackle the above issues, rethinks the regulatory framework employed in the country to appropriate, allocate, distribute and use water.

Chapters 2 and 3 will investigate how the reform is taking concrete form by looking at the internal workings of the Crooked Cart Township's Water Bureau – a small, chalky countryside office where I spent most of my time during fieldwork – as well as at the surrounding communities of rural villages, examining the rough introduction of central state policies into the everyday trappings of water allocation and delivery. **Chapter 2** discusses the political economy of water management in the PRC. It presents the current situation of the Chinese water resources and the different and competing uses of water within Huize County's economy. It then moves to describe both the institutional and physical networks that operate the drinking and irrigation water system in the community. It will argue that the political economy of water in Yunnan constructs scarcity and allocates drought-related risks differentially among the population.

Exploring the friction between centrally designed water policies and the needs of local communities, **Chapter 3** probes into the political dimension and the ethical implications of managing water in contemporary China. It documents the ethical engagement of Crooked Cart's water bureaucrats, as they compromise between the implementation of policies, the provision of water and the survival of their own institution. Their ground-up, ethically-minded intrusion into Chinese water politics demonstrates that the contemporary PRC cannot be simply described as a ruthless dictatorship, as is usually done by Western mainstream media. Locally, the Chinese state could appear – perhaps surprisingly – to be primarily concerned with the well-being of its citizens, even though structural factors in

the management of water are increasingly making delivering water to all an unprofitable enterprise.

Studying the circulation of water means tracing the journey of water as it continuously flows from one place to the next, stored upstream behind the tall barrier of a reservoir, diverted to water fields, pumped into houses, discharged into fish-breeding tanks or compounded with chemicals inside a purification station. As this journey is man-made, it also requires micro-political arrangements that could keep the water flowing in a particular direction to perform a specific and ordered series of tasks, as well as to make sure that the flow will be available for future tasks. These arrangements are multi-dimensional, involving different institutions and differently positioned actors reciprocally connected with one another through a supply network. Successful cooperation is thus the situation where the joint action undertaken by all the participants in this man-made flow allows for water to come in today and to go out the day after.

Realizing how crucial cooperation is to solve the Chinese water problems, reformers are now suggesting that sustainable forms of water journeying can be successfully engineered not via targeted amelioration of relevant infrastructure alone but more poignantly, via legal and administrative reforms, that is, by working on how people ought to behave within the water supply network. Thereby, Water Users Associations (WUAs) and the reconfiguration of water service recipients into customers are making their appearance in Crooked Cart. This dissertation will make the analytical effort to study in detail what cooperation in water management might look like and what the reformist push is truly achieving in the Chinese countryside. In this light, **Chapter 4** zooms in on the process of building cooperation between the state and non-state institutions. This chapter deals specifically with WUAs and shows how the relationship formed between elected representatives and the wider community determines the recalibration of the WUA model onto the expectations and aspirations of local villagers.

Chapter 5 looks at the problem of cooperation between individuals, both within and outside the state. It will document the local forms of collaborations and practices of mutual support employed by many of my research participants in times of shortage, such as the redistribution of drinking water among households through the excavation and maintenance of communal water wells. It will also point at moments where failure appears

to be the most likely outcome of collective action, and explain these by the historically constructed distrust towards the state and, more tellingly, towards the idea of cooperation itself, held by many of my research participants.

The last two chapters engage with the breakdown of cooperation, the multiplication of conflicts over water access and the various repertoires of contention Crooked Cart citizens are becoming increasingly familiar with as the Chinese water problem unfolds.

Cooperation between the state and the common citizens is crucial to afford water access in Crooked Cart. Yet, water access is effectively becoming a “contentious” commodity throughout China, with mass protests against local governments being more and more often suppressed coercively by police intervention. Crooked Cart Township does not significantly deviate from this pattern. Here, the development of the local economy has led to disruptions to the supply network, causing scarcity for many rural dwellers. This, along with a perceived lack of effective supervision, is bringing local farmers to publicly oppose the local government, as they see it fail to keep its obligations towards them and the public good of water provision.

Regarding this issue, the ethnography explores the various claims expressed by local citizens, as well as local practices of everyday resistance, non-compliance or strategic collaboration with local authorities. **Chapter 6** brings to the fore the contentiousness of water management by focusing on the documented occasions during which outright opposition towards the local state is staged. This chapter develops a native theory of property relations in China and show how this theory contrasts with the various legal arguments advanced by state agents in their attempt to justify state-led development involving land requisitioning.

Chapter 7 looks at how cooperative relationships on water are stitched together through quasi-legal remedies such as legal mediation. Disputes resolution are show to be instrumental to the upkeep of the supply network and the reproduction of practices for its maintenance, as during mediation managerial rules are effectively established and enforced. Thus, Crooked Cart's dwellers do not just avoid the state, but creatively come up with counter-management practices – such as redistributing water across needy households or customary rules for the maintenance of water infrastructure – that side-step entirely the problem of depending on state-run but insecure water provisions, *de facto* replacing and

integrating state services. Through such creative and participated engagement with water governance, Crooked Cart's citizens envisage novel and collective modes of re-appropriation of local water resources, laying the foundations for participative and humanistic alternatives to modern water management.

The **Conclusion** ties all the previous discussions together, advancing a reflection on the Chinese directions in water management provided by the thesis. The active project of making water available to humans is a complex endeavour, practised not just according to the principles of efficacy but hugely driven by moral principles. The delivery system encountered in Crooked Cart works on the assumptions that some distributive, allocative and conciliatory actions crucial to its perpetuation ought to be undertaken. Participants take active interest in the well-being of fellow villagers, and engage in the operational activities required to bring water to human use – that is, they cooperate with others – as part of this other-regarding interest. Water circulates in rural Yunnan not solely according to its economic value but as the tangible manifestation of valuable, non-instrumental human relationships. Actually, water still flows in rural Yunnan without it doing “any work”.

Chapter 1
In the Footsteps of Yu the Great:
A Brief History of Chinese Water Management and its Consequences

My attempt in this first chapter is to present to the reader a brief history of Chinese water management. Water, at first glance an unremarkable substance, is something anyone can claim to know quite well from everyday experience. Management, on the other hand, sounds rather more technical and aloof, figuratively encapsulated behind an office desk and a lot of specialist paperwork. Their combination – i.e. when we speak of a system for “managing water” – usually suggests little more than processes of measurement, calculation and optimisation. While these processes are certainly part of the picture, here I will show how water management is much more than that. Human imagination, collective effort and political struggles are all bound up in it. In other words, I will try to provide a human context to water management, conjuring scenarios and ideas which, at first sight, may not appear to be directly related. I will make the case for an understanding of water management that is rooted in geographically and historically specific practices and imaginaries. That is, I will try to figure out what *Chinese water management* might be. To get a sense of what I am getting at here, let me give you a snapshot of my fieldwork in Crooked Cart.

The bulk of my fieldwork was spent working alongside the water engineers and plumbers at the Crooked Cart Township's Water Service Building (WSB). Every day a new channel had to be excavated, a leaking pipe had to be fixed, or a small water cistern had to be plugged into the supply network. The amount of manual work, practical thinking, leadership and problem-solving skills that went into the daily routine of my research participants was outstanding. Acknowledging that this was a job not everyone could do, Crooked Cart's water workers took great pride in what they did.

On one of my last days of fieldwork, I was kindly asked by the WSB staff to escort them to a mountain site. This was where the drinking water main was located – the principal supply pipe in the local arrangement of pipes distributing drinking water to Crooked Cart's community. This conduit was cleverly designed to bend around the side of a high rising, vertical cliff, and to get there one had to climb the unfenced, man-made stairway that had been carved out of the mountainside. When we started queueing up on the stairway, the

excitement was palpable. As my fieldwork had already proved to me many times, being a water worker in north-eastern Yunnan was a surprisingly adventurous endeavour. When we finally reached the top of the stairs, we removed the heavy stone plates used to protect the water flow from external contamination. The now uncovered water was flowing so effusively that we could hardly hear each other speak. Then Xin Mengfu – the most good-humoured member of the crew – put one foot on top of the water conduit, and assuming a triumphant pose, boasted daringly: “Look at me! Am I not like Yu the Great now?” The roaring water was suddenly drowned out by laughter.

Mengfu's joke is funny only if one knows the history of Chinese water management. As always with events occurring along the breadth of Chinese history, at this point things might start to assume a time-honoured complexity. To avoid what would certainly be a convoluted discussion, I will pause here only briefly, skimming through many centuries just to press one simple point home. By and large, the management of water for the fulfilment of human needs in China has been practised according to an expansionary, supply-side agenda. That is, the imperial, republican and communist governments have all tried to expand the amount of water available to social use in the attempt to sustain the economic and demographic growth of the country. However, as suggested by many environmental historians, many centuries of supply-side management have eventually brought the country to the brink of an environmental catastrophe.

In this first chapter, I will provide the background information needed to fully appreciate the ethnographic material and theoretical discussion that will appear in the following six chapters. **Part I** of the chapter will be concerned with the history of Chinese water management and its complicated relationship with the Chinese environment. By chronicling many centuries of Chinese attempts at harnessing water resources, I will make the point that upon the development of water infrastructure the Chinese imperial bureaucracies, the local gentry and the common people have established a terrain for the mediation and negotiation of their interests. The central state and the surrounding localities identified in the constant extension and maintenance of water supply networks a mutually beneficial project, where sustaining local traffic and agriculture dovetails with the aim of deepening and extending the state's purchase on local governments and society. In **Part II** I will focus on the environmental consequences of this long-lasting, mutually advantageous relationship. Lastly, in **Part III**, I will show the anthropological insights that

may be gained from taking seriously the materiality and agency of a water supply network. I will provide an account of China's environmental history that gives weight to the role played by the interplay of technology and politics in the unfolding of long-term environmental processes.

Part I

A Water-Rich Political Imaginary

China has a long history of centralised government. For centuries, this project of governance has been carried out via the control of water and the expansion of the water supply. For this reason, Karl Wittfogel famously called China a “hydraulic civilization” (1957: 8; also Needham 1971: 223), meaning a country where order was established through the top-down mobilisation of labour needed to control floods and irrigation. Historical evidence now suggests a more complex picture: extensive infrastructural planning and sustained water use have also been achieved by decentralised networks of rural villages (Lamouroux 1998a, 1998b; Bujard, Dong 2001; Lamouroux, Will 2003; Wang M. 2004; Dean, Zheng 2010; Lamouroux, Dong 2011). The management of water in China has long been a political affair that saw the central state and local communities cooperating with one another.

In this section, I will sketch out the contours of a cultural imaginary that, I believe, represents well the model of political cooperation between the central state and its population that was achieved in ancient China. The Chinese government has long relied on a particular technique of government, i.e. the mobilisation of mass labour and the expansion of the country's water supply, to continuously supply water to a thirsty society in exchange for legitimacy, surplus and power. On the other hand, local landed elites profited from state-sponsored water diversion projects and irrigation schemes, as these directly affected the extension and productivity of their property. Lastly, the canal navigation was welcomed by small farmers who, thanks to water-borne traffic, gained access to a wider network of markets. It is upon the political platform provided by the collectively built water infrastructures that this particular configuration of state-society relations – the “co-acted” state – emerged in China.

Before showing this, however, I want to introduce the reader to a few political ideas and

concepts that have been developed within Chinese culture and that attribute moral and political value to the management of water. I do this because I believe that an informed appreciation of the Chinese political imaginary, and the role that water plays in it, could prove helpful in future discussions of the historical and ethnographic materials to which I shall refer in this dissertation.

An ancient literary passage exemplifies well the political role the ancient Chinese attributed to water infrastructure. As early as the 3rd century BCE, we are informed by the author of the *Master Guan* (*Guanzi*) of the consequences of unscrupulous water management:

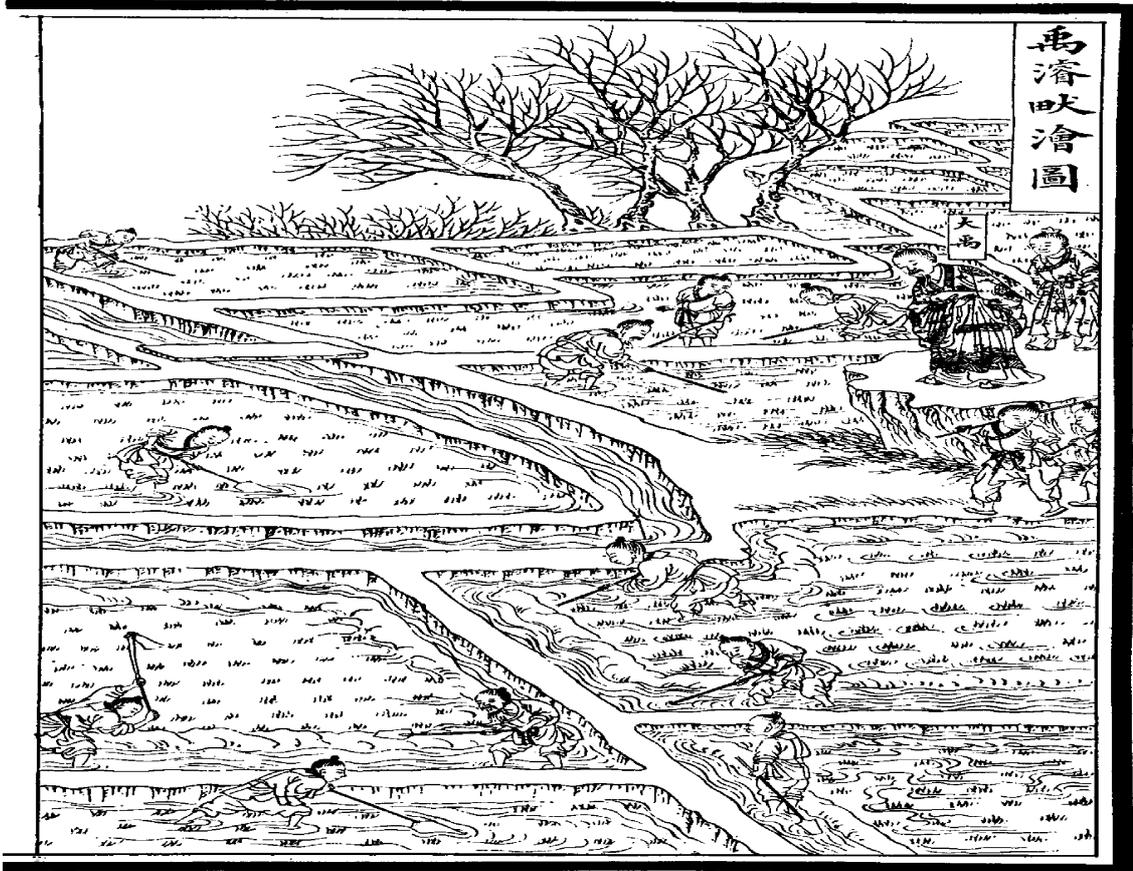
It is the nature of water to flow, but when it reaches a bend (in its channels), it is retarded. [...] When it leaps up it runs to one side. On running to one side, it forms whirlpools. After forming whirlpools, it returns to its central course. On returning, it [...] deposits silt, and when this has occurred, (the channel) becomes obstructed. [...] Impeded, (the water) runs wild. Running wild, it injures men. When it injures men, there arises great distress among them. In great distress, they treat the laws lightly. Laws being treated lightly, it is difficult to maintain good order. Good order lapsing, filial piety disappears. And when people have lost filial piety, they are no longer submissive (Needham 1971:223).

The art of water management or control (*shuili* in Chinese, lit. “turning water to advantage”) is, according to Master Guan, inextricably bound with the art of controlling the nation. Since ancient times, the nascent Chinese empire sought to reclaim new land and to extend the reach of its “civilizing” effort through flood control and irrigation. In this form, water management has an astonishingly long and successful history in China. Archaeological evidence shows that as early as the 4th century BCE the state of Chu – a vast swathe of land including the present-day Chinese provinces of Henan and Hubei – was already involved in the realisation of multi-scale irrigation projects (Needham 1971; also Bray 1986: Ch. 3). Recently, Steven Mithen (2012) has vividly described the feeling of absolute bewilderment that comes with visiting some of these ingenious surviving works of ancient Chinese hydro-engineering. Li Bing's diversion of the Min River – still in place today after almost twenty-two centuries – and China's “Great Canal” (*Dayunhe*), the longest waterway ever made, are just two of the many living testimonies of a history of infrastructural grandeur.

Here I want to go even further back in time, to the mythological roots of the Chinese water–power bond. The story of Yu the Great – the mythological figure Mengfu so amusingly invoked when we reached the water main – has to be placed around 2300 BCE in what is today Sichuan Province, south-west China. At that time, according to legend, the world was flooded with water and its management was ultimately about “giving order to the world and making it habitable for men (sic)” (Allan 1997: 39). Yu was the son of Kun, a man appointed by the legendary emperor Yao to solve the problem of devastating floods that had been inundating the Sichuan countryside. Kun, failing to control the water, was first exiled and then killed by Yao. Yu then succeeded his father in the daunting task of devising a means of flood control. Yu spent thirteen long years – during which time he never visited home and sacrificed his body to his task – dredging Sichuan’s river beds, successfully channelling water into a myriad of different ditches, which would eventually convey the water to the sea (see Mithen 2012: 156-157). To do that, he worked hand in hand and shared his food with the common workers recruited to his water scheme. Finally, the floods were put under control and Yu became the next emperor and founder of what is now known as the Xia Dynasty.

Yu's devotion to imbuing water with a sensibility for human needs – making its natural flow work with, rather than against humans – makes of water a “vector of power”, as the Chinese anthropologist Zhang Yahui puts it (2007). Here I want to spend some time exploring what sort of power that might be. There is an ancient picture, contained in Needham's *Science and Civilisation in China* (Vol. 4: 213), that gives some clues about this. In this drawing, Yu is standing, elegantly dressed, on a rising platform, watching several irrigation workers level paddies, exhorting and guiding them to better work. Great Yu is here represented not only as a brilliant water engineer, but also as a figure worthy of respect.

Figure 1: Yu the Great supervises the canal works



Indeed Yu's story appears to have a moral and political content that could easily escape a shallow reading of it. What model of authority is Yu exerting here, and what kind of power? In this respect, Chinese philosophy has a great deal to say¹⁷. For instance, the ancient Chinese philosopher, Mencius – supposedly a pupil of Confucius's grandson – was one of those who saw in Great Yu's achievements a parable of good government. For Mencius, “Yu's means of directing water was to make the water move where it had no resistance. If knowledgeable men would [...] make people move where there was no resistance, then their knowledge would be great indeed!” (quoted in Allen 1997:41). In Mencius' view, Great Yu's story epitomizes a model of “soft” government where power is exercised gently, directed at catering for the natural tendencies and exigencies of its subjects. Water here is a metaphor for human nature: bendable and inclined to move around obstacles. A sage ruler is one who acknowledges the natural predispositions of

17 Here I will only refer to the Confucian view of Great Yu and of water management. There are many others philosophical traditions that have influenced how Chinese culture has approached this topic, typically Daoism (Allen 1997). Needham famously discussed the Confucian and Daoist traditions of hydraulics as being in opposition with one another (1971).

human nature and adjusts to the need of the people.

In the Confucian tradition following Mencius – for many centuries associated with the ruling orthodoxy – philosophers would make the further move of talking explicitly about correct human conduct in hydrological terms. For these philosophers, “tidying up” or “aligning” a water channel – so that water would no longer swirl into it – is a practice akin to “aligning” or “rectifying” (*zheng*) one's thoughts and actions – to make thoughts and action quiet and clear as resting water. On the other hand, “misconduct” is in this tradition visualised by a turbid water current (*ni*), whirling around with neither reason nor goal (Cheng A. 2000: 507). Along similar lines, the Chinese anthropologist Zhang Yanhui, already quoted above, has recently brought attention to the role played by water and its management in Chinese political philosophy. In a beautifully crafted ethnography, Zhang comes back to the passage from Master Guan, quoted at the beginning of this section, commenting: “the logic of this passage could be summarised as 'if the water is good, then human relationships are good', [...] but in Chinese culture the equation between the art of government and water could also run the other way around: 'when human relationships are good, water is good (*renqing hao, shuijiuhao*)’” (2008: 268-9).

This is the point at which, I contend, the “cooperative” dimension of Yu's story comes to the fore, where the interdependency between human relationships and water management becomes evident. In the myth, the effort of controlling the waters is jointly undertaken by an emperor's envoy and the common people. Yu's story suggest that working together – cooperating across hierarchical divides – is valuable *per se* and yields what individual effort alone cannot. Furthermore, it contains the idea of individual dedication to the collective good. Great Yu sacrifices everything for the sake of serving the Chinese people. Lastly, in the Chinese political imaginary encapsulated by the myth, self-abnegation and participation in collective endeavours are joined to form a specific cultural notion of charisma. Yu is made the emperor because he has proved to be able to lead the people towards a common objective. The reader should note that in the following chapters many of my interlocutors will speak of water management in terms similar to those used here to unpack Yu's story.

My idea is that the figure of Yu the Great can actually be thought of as a boilerplate for a

Chinese notion of good government¹⁸. This notion stresses the mutual benefits of working together, while also allowing for a group of skilled and technically competent individuals to take the lead, with the belief that for cooperation to be effective, one needs first recognizable and devoted leadership. In turn, this political ideal is operationalised by the belief that joint work under the enlightened guidance of an authority figure will lead to collective success and to a reaffirmation of the bond between that authority and the masses of mobilised workers. In China, the management of water appears to be a core metonym of cooperative and morally prized power relationships.

What I am describing here is a cultural imagery of hydro-engineering that attributes a political and moral connotation to the collective effort of controlling sources of water. In the next section I will show how this imaginary of beneficial collaboration across hierarchical divides worked in practice. The concrete history of Chinese water management is one where the imperial state, its bureaucracy, the landed elite and the common people cooperated to bring water under control to mutual advantage.

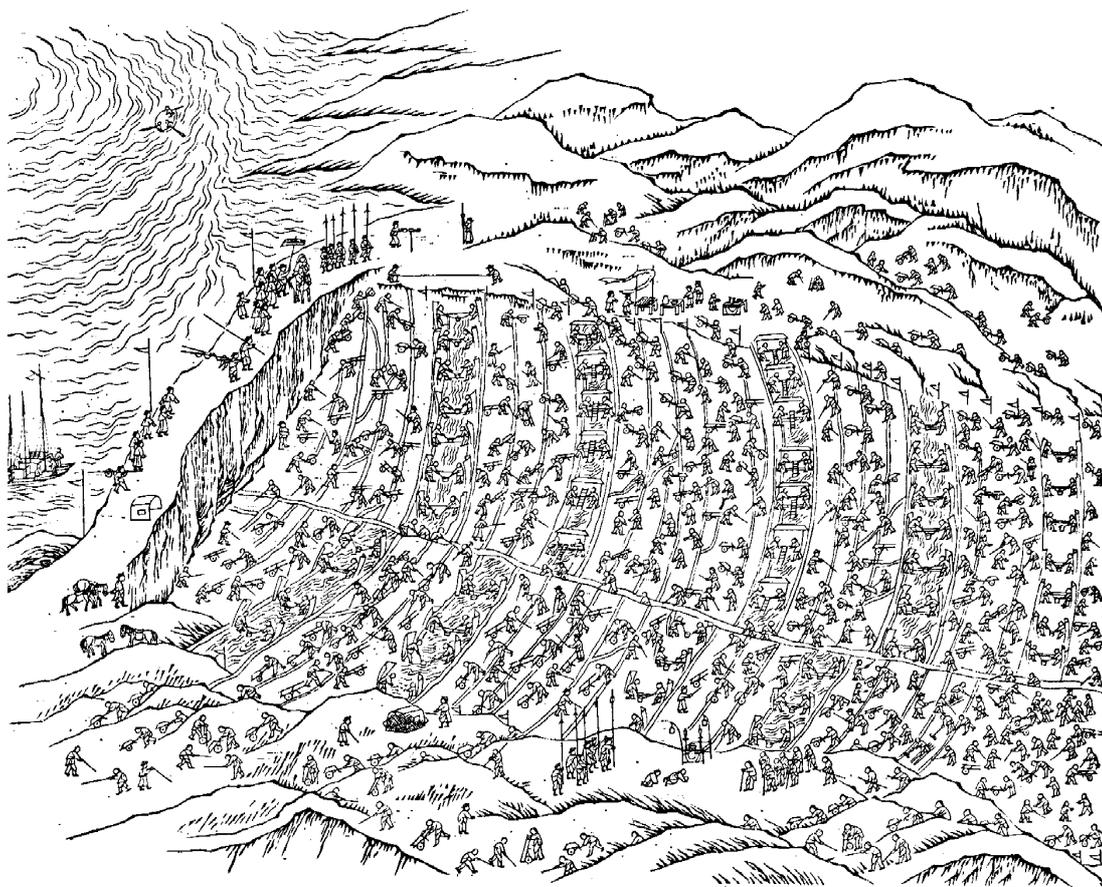
A Brief, Non-Linear History of Chinese Water Management: Rationale

There is another great picture contained in Needham's mammoth encyclopaedia (vol.4: 262) that conveys the political imaginary I am referring to. Lin Qing, a Manchu water official who lived during the 19th century, compiled a *Memoir* made of drawings. In one of these, the cutting of a canal on the Yellow River is beautifully evoked by precise Indian ink strokes. A bird-eye view shows a huge number of ant-sized workers, labouring together to dry the excavation and erect the canal walls. The bird's eye view can be attributed to Lin Qing himself who, being the engineer-in-charge, supervises the operation from above. Here, the enlightened, technical guidance provided by Li, together with the keen collaboration of a spirited mass of workers, leads to the realisation of a public project on a grand scale.

18 Interestingly, the Chinese political vocabulary is largely composed of words whose characters contain the radical for water. The “Law” (*fa*), to “govern” (*zhi*) and the “Chinese people” (*Han*) for instance are all terms reducible to actions related to water management or linked to bodies of water (see Wang Y. 2007).

Figure 2: Lin Qing's Drawing

紅槍河引



Something very similar to Lin Jing's drawing, but on a much larger scale, is currently under way in present day PRC. The South-North Transfer Plan (SNTP), of which the reader will hear more in Chapter 2, is in fact an updated version of Lin Qing's cross canal, an aqueduct projected to carry massive volumes of water from the Yangtze River to resolve the chronic scarcity of water afflicting the north of the country. The SNTP is a decades-long infrastructural project, again involving top-down technical planning, the concerted action of thousands of workers and the single-minded pursuit of the “common” good. It could have been designed by Yu.

At this point one might raise the question of why the Chinese have gone, and still go to so much trouble to organise grandiose projects to maintain and expand control over various water sources? Here I do not want to attempt any grand theory – nothing on the scale of Yu's accomplishment! – but rather to point to the fact that such projects were – and in large part still are today – organised, sponsored or at least welcomed by the Chinese state. To

readers familiar with the anti-Wittfogel turn taken by scholars of Chinese history¹⁹, this statement may come across as an overstatement. Let me qualify it. Historians working on water management systems in ancient China have argued that “before the Ming and Qing dynasties, all works relating to water resources were done by the central government” and that since then: “except for some large-scale water projects, the state gradually withdrew from routine water management, and local societies became more and more involved in and undertook responsibility for local water management” (Dang et al. 2013: 645). This would imply that for a very long period of time (1368-1949) the Chinese state, at least up until the return of centralisation with the PRC, had little role to play in water affairs, thus at least partially contradicting the seemingly state-led narrative I have presented thus far.

However, the position I take here is one that avoids drawing too sharp a line between the state and the local communities, rather emphasizing the “interesting patterns of ebb and flow” between the state, the local gentry and the common people in the development of water schemes (Gao 2012: 14; see also Elvin 1977; Bray 1986: 92-3). That is, my point is that one should constantly determine empirically the degree of proximity that describes the relation between the state and the local society under analysis. In this regard, an illustrative case is Kenneth Dean and Zheng Zhenman's thorough analysis of the historical development of the Putian Valley irrigation system, Fujian Province (2010). Interestingly, while supporting the view that the state might not be the principal driver behind the expansion of many water projects in the area, the authors provide evidence that seems to support the thesis that the state still had a huge role to play in water management.

First, the authors find that around the 11th century, land reclamation by military colonies in the Valley – promoted by the state – slowly gave way to increasingly complex and interdependent irrigation networks. Second, while the construction and maintenance of the infrastructure were customarily carried out locally, by lineage and multi-lineage groups (i.e. not directly by the central state), the resulting expansion of the (potential) tax basis²⁰

19 I here refer to those historians who wished to criticise the “Oriental Despotism” theory by emphasizing the self-governing spirit of local water management in imperial China. The work of Peter Perdue (1987), Pierre-Etienne Will (1990) and Kenneth Dean (2010) exemplifies this line of argument.

20 Predictably, there is a great deal of variation in how land taxes have been applied across dynasties and provinces. Dean and Zheng report that the Putian landed gentry was given tax breaks on new land adjoined to local irrigation systems as an incentive to develop and maintain local water infrastructure. On the other hand, Kathryn Bernhard reports that land owners in the Lower Yangtze Region had to bear the costs of construction materials or discount rents to cover for tenants' individual investment in local water infrastructure (1992: 268-69n84). That is, when the state looks for ways to mobilise local elites on public works, it provided incentives which are then balanced by legal or quasi-legal liabilities.

through locally organised irrigation works – as more land was put under the plough – was not forbidden but welcomed by the state. Third, the local gentry was actually composed of *literati*, who joined the ranks of central state administration by passing the imperial examination and rising to official positions (see the discussion in Dean, Zheng 2010: 96-102; also Wang M. 2004). Finally, during the Ming, “gentry landlords [were] obliged [by the state] to provide corvée labour by sending their tenants to join maintenance work” (Bray 1986: 93).

In practice, rather than remaining uninvolved in the construction, maintenance and expansion of water infrastructure, the bureaucracy governing the Chinese nation during the imperial era secured a stable source of revenue by delegating managerial functions to and providing incentives for the landed gentry. Let me give you two brief examples of this. The first one is Mark Elvin's (1977) account of the economy of the Shanghai area around the 17th century. In his account, Elvin shows a water supply network (including canals for navigations, dykes, and irrigation channels) designed by the state and governed by middle-ranking landowners who were rewarded for their civil service with gifts of officials loans, official ranks and tablets of officials commendation (452). The local gentry already enrolled by the local bureaucracy was instead exempted from water-conservancy duties but held liable for any failure. According to Elvin, the late-imperial Shanghainese socio-hydraulic edifice was one that allowed the local economy to prosper, thanks to the productivity of its cash crop water-fed agriculture and the interconnectedness of its waterways upon which markets thrived.

My second example comes from Yan Gao's very detailed and nuanced historical study (2012) of the rice-producing region of Jiangnan, Hubei Province. In her doctoral thesis, Gao shows how the state, the local elite and the peasantry collaborated in the upkeep of the area's hydraulic structures – a dyke enclosure traditional to central China called *yuan* – in ways resembling the Shanghai system described by Elvin. Gao argues that “the lower level governments (including the county and prefecture) were in close collaboration with the local gentry in representing community interest, initiating dike management, and mediating conflicts. Meanwhile, the local communities formed highly organized institutions to manage local resources and resolve conflicts” (99). In initiating local water management projects, the provincial government would be extremely scrupulous in identifying the tax liability and responsibility of each household living within the

boundaries of a *yuan* (306).

I should stress here that these "water-borne" political arrangements should be taken to favour not simply the central state, but all the members of an extended and mediated bureaucracy that populated every single Chinese settlement, from the big market city to the small rural village. What is more, the increased availability of water certainly helped farmers turning unproductive land into rich, fertile soil. Here I refer mainly to Li Bozhong (1998) and Kenneth Pomeranz's (2000) analysis of agriculture in the Yangtze region during the Qing (1644-1912), which they claim achieved high productivity and generated diffused wealth comparable to that of nineteenth-century England (but see Huang 1990). Along the same lines, one should also consider William Skinner's point about the crucial role played by the innervating web of waterways developed in China's riverine environments to the beneficial expansion of the rural market economy of late imperial China (1977). That is, everyone profited from directing the flow of water, at least on the short-term.

To recapitulate, from the point of view of the pre-modern Chinese state, the maintenance of public water infrastructure described above was intrinsically connected with the problem of securing a steady source of taxation (paid in money or kind) for the ever-expanding Chinese bureaucracy (Marks 2012: 338; Pia 2011: 149). However, as the next part will show, this particularly diffuse and extensive presence of state bureaucracy within Chinese society – what I termed the “co-acted” state in the Introduction – is to be held partially accountable for the long-term deterioration of Chinese water resources. The configuration of power relations that the Chinese tradition of water management afforded meant that equilibrium depended upon constant expansion. To use the jargon of a water expert, Chinese water management across the centuries shows a bias for supply-side solutions. To keep up with a growing population – the result of the increased productivity of a well-watered agriculture – the state had to allow more land to be tilled, and thus more water to be tapped for agricultural use. While this afforded a faster growing and steadier source of income for the central state, the margins of resource exploitation increasingly become thinner, and almost vanished. The next section shows how the water–power bond encapsulated in Yu's story – and perpetuated in the efforts to modernize by both the Republican and the Maoist governments – has eventually led China to an environmentally degraded present.

Part II

A Brief, Non-Linear History of Chinese Water Management: Consequences

As Master Guan noted above, the provision of water is intrinsically connected to social stability. Yet, because its provision is a complicated socio-technical endeavour requiring enduring cooperation between differently situated actors, many things can go wrong, ending in structural damage and social unrest. Moreover, when hydro-engineering is undertaken at the scale that it has in China, the magnitude of the side-effects could be enormous. In this section I wish to talk about the history of Chinese water management not from the point of view of its accomplishments – Needham making the point that ancient Chinese hydraulics achieved “epic” results (Vol. 4: 378) – but from that of its unforeseen consequences (Ferguson 1994; Scott 1998). As discussed above, this section will talk about the damaging consequences of water management in China as not having one single perpetrator. For what I think are good reasons, I will avoid placing on the state alone, or on “society” for that matter, the onus of irremediably compromising the ecological stability of the country, rather advocating for the co-production of environmental crisis.

There are a series of examples I want to quote here to support the view that large, multi-scale, complex, coordinated infrastructural projects may produce unforeseeable consequences. One is Liu Changming's study of the SNTP (2000)²¹. Liu argues that the long-term consequences of connecting the Yangtze River to Northern China could include the unpredictable alteration of ecosystems, permanent land loss, siltation, decrease in agricultural output, mass migration, increasing consumption of water in the receiving regions, and finally the subsequent mutual reinforcement of all these factors, producing a downward spiral towards long-term scarcity and depletion. Perhaps, though, a more convincing way of going about this section could be to examine some water projects that have already produced massively damaging consequences for the Chinese environment and its human population.

Chinese history is replete with such cases. One is Mark Elvin's story of how in Ming China

21 The SNTP started officially to draw water on December 2013 (see <http://sinosphere.blogs.nytimes.com/2013/12/11/a-quiet-start-to-south-north-water-transfer/>). Quite a few online articles have been written to document and forecast various issues that might ensue from the completion of the water transfer. See for examples: <https://www.chinadialogue.net/article/5128-China-s-South-North-water-transfer-is-irrational>; <https://www.chinadialogue.net/article/show/single/en/4396> and <https://www.chinadialogue.net/article/show/single/en/4085-Drying-up-the-Han>.

(1368-1644 CE) water management was eventually captured by an expansionist drive, which led various emperors to keep looking for possible improvements to the national supply network (2004: Ch. 6). Riverbeds were constantly cleared for better flow, canals and gates upgraded and huge swathes of land annexed to the wide-spanning irrigation systems that innervated the countryside. Unfortunately, grand-scale water works often evolve into unforeseeable pattern of landslides, floods or untimely shortages. Elvin makes the case of the improvement of drinking water and the water-borne grain supplies to sixteenth-century Beijing. This involved an unsustainable amount of alterations to the extant infrastructure and to its water flow that would later reverberate throughout the canal network, producing unexpected flooding, leakages and famine (2004: 131-140). Lillian Li gives another example of ill-planned infrastructural development, when she recounts the story of how, in the Qing period, North China's plain saw its ponds and lakes dry up, never to be seen again due to over-canalization, siltation and water logging (2000: 68).

One final example is that of the Huai River Valley, located in the North of China, one of the places Yu the Great supposedly laboured in, rescuing inundated China from drowning. For a great portion of the history of unified China, the Huai River has been subject to frenetic and unstoppable hydraulic works. Once the waters of the Huai had been connected with those of the Yangtze – to boost canal navigation and commerce and support the state's bureaucracy – the integrated management of such a widely spanning but intrinsically irregular ecosystem gradually escalated to unprecedented complexity. David Pietz explains this well, when he notes that excessive waterway development “led to a breakdown of hydraulic conditions which in turn mandated large expenditures to restore stability” (2002:7). Large expenditures caused various imperial governments to collapse under their inability to acquire control over localities from whence funds and labour needed to be extracted, halting infrastructural maintenance and therefore prompting – as in the passage from *Master Guan* quoted above – bank subsidence, siltation, floods and political turmoil.

Unfortunately, the degradation of the Huai River Valley did not end there. Between 1400 and 1900, the valley was hit by 350 large floods. By the beginning of the 20th century, what was once a luxurious rice-growing area was largely abandoned, becoming the hotbed of permanent civil rebellion, as described by Elizabeth Perry (1980). The Republican Government attempted restoration, via centrally planned mass-mobilization, at the beginning of the 20th century, with little result (Pietz 2002). Then the Communists took

power. Some years prior to the launch of the Great Leap Forward, the restoration of the Huai Valley had been launched, under the Party's motto "Harness the Huai River" (*zhihuai yundong*), to garner millions of peasant's active participation in the effort to bring more irrigation water to farmed land. Twice as much as earth as was used for the building of the Panama Canal was moved by hand to divert the course of the Huai River, allowing for a better control of its flowing waters. In the next few years more than four thousands dam were constructed on the Huai River Basin, providing water for what had become a fast-growing industrial area (Marks 2012: 299-300). Today the Huai River is considered "dead" (Economy 2010: 1-9), with its water quality, despite the regulatory effort (van Rooij et al. 2012), unable to get above a grade IV classification, unsuitable for human use and fishing²². This pattern is also becoming ubiquitous for the more recently exploited Yunnan water resources, now experiencing appalling levels of pollution (see Chapter 2).

The Socialist Footprint on Chinese Waters

On his first visit home after the foundation of the People's Republic, Mao Zedong decided to take a dip in the waters of a recently built reservoir nearby. Watched over by two lines of cheering peasants arranged along the reservoir banks, Mao swam for a couple of hours, inspecting and testifying to the quality of the communist-built infrastructure (MacFarquhar 1983: 189). Those were the years of the Great Leap Forward (GLF, 1958-1961)²³, a mass campaign Mao had forcefully stood for, in the attempt to provide energy and food to communist China. As Judith Shapiro documents in her thoroughly researched book (2001; also 2012), tellingly called *Mao's War Against Nature*, this and other policies of that period had serious environmental consequences, comparable to the pre-modern cases mentioned above.

Starting with the GLF, China undertook an effort unprecedented in its scale and magnitude in its long history of water management. Simply put, the construction of dams took precedence over anything else. Today, China has become the first country in the world per number of dams²⁴, of which by 1981, 3,200 had already collapsed while 40% were found

22 Grade IV – Mainly applicable to water bodies for general industrial water supply and recreational waters in which there is not direct human contact with the water (World Bank 2007: 158).

23 The Great Leap Forward, in Chinese *Dayuejin*, was a mass campaign organised by the Communist Party aimed at rapidly transforming the country's agrarian economy into one based on heavy industries. The GLF produced hideous consequences. In only four years, an estimated 36 million people died of starvation. See Yang 2012.

24 Data available at <http://www.internationalrivers.org/programs/china> and

to be below project standard²⁵. During the Mao era, the annual dam failure rate was around 110²⁶ (Fu 1998: 22). In the largest of these incidents – the collapse of Banqiao Reservoir in Henan Province – almost 85,600 people died (Marks 2012: 302). At the time of writing, there were more than 87,000 dams in China, and Yunnan was projected to house many other more such dams in the near future (Tilt 2015: Ch. 4). From a socio-environmental perspective, the problem with dams is that they irremediably alter people's relationships with the environment, first relocating people away from their traditional dwellings, and secondly replacing sustainable practices of water management with pro-growth schemes of water allocation (Baviskar 1995, Baviskar et al. 2007; also Yin 2012). The Chinese Three Gorges Dam (*Sanxia Daba*) is a case in point²⁷. Once completed, the number of people displaced for its realisation will reach 1.2 million (Webber et al. 2011: 161), transforming an area of the size of London into a lake. Some of the people, already relocated on new land, have been forced to cultivate unsuitable sloping plots to maintain their standards of living, very likely re-initiating a damaging pattern of unsustainable land use (Webber 2012: 39).

The impact that dams have on people and the environment is similar everywhere, contested locally, but always publicly supported by “lesser evil” politics (e.g. Espeland 1998; Tilt 2015). In my field site, the Great Leap Forward Reservoir located in Big Bridge County – the main water supplier in the area – instantiates this stereotypical story of divisiveness. The reservoir was realised by the mobilisation of thousands of workers under the Party motto “Man Must Conquer Nature” (*Ren Ding Sheng Tian*), a solemn pledge to eradicate poverty in the country. During its construction – thanks to which 135 km² of afforested land disappeared – environmental degradation caused unanticipated floods, unleashing their devastating power over the surrounding communities and villages. Hundreds perished, while precious soil was washed away, turning the surrounding farmland into a muddy desert.

http://www.greenbang.com/which-countries-get-the-most-energy-from-hydropower_21763.htm. Last accessed 11/08/2014.

25 Chellaney reports that in 2009, 37,000 dams (40% of the total) were considered by the Chinese authorities to be in "potential danger" of being breached. Between 1998 and 2008, 59 dams were breached in China (2011: 72).

26 The relative short lifespan of many dams constructed during the Maoist period is usually explained by referring to the "red expert" politics of the period. The idea that ideological robustness should have been prioritized over technical competency for all the personnel involved in public projects. See Andreas 2009: Ch. 7.

27 The Three Gorges Dam, costing between 400 and 600 million RMB and providing by itself almost 3% of China's installed electricity generating capacity, is one of the most contested water projects ever realised in the country. See in particular Boland 1998 and Webber 2012.

All over Yunnan, the construction of dams correlates with the deforestation of its mountain area. Between 1958 and 1964, the afforested area of Yunnan experienced a drop of almost 10%, with around 40,000 ha² of land being degraded (Shapiro 2001: 82-83; also Marks 2011: 119). Clearing farmland for a population of landless peasants, while gaining the energy needed for the growing commanded economy from the felling of hillside trees and the expansion of the water supply was the rationale of what later become an ecological catastrophe. In fact, irrigation water used on this land would cause landslides and deprive farmers of their stubbornly conquered land plots (Shapiro 2001: 110-112). Around Yunnan, deforestation and state-sponsored over-cropping have long deteriorated the soil, which once flushed away by irrigation water would end up clogging canal networks and engulfing dams. Engulfed dams would eventually cause further degradation, farmland loss, migration and death (e.g. Smil 1996: 76, 1999: 424-26; on similar cases in Gansu, Jun 1996, 2007).

All the cases I have presented in this second part of the chapter should be seen as indicators of an engrained Chinese tendency to expand and exploit the country's water resources whatever the cost, improving the short-term wealth of the nation (which joins together the interests of an elite with the welfare of the Chinese people) by neglecting the longer term. Pre-modern dynasties and the national governments of the 20th century are here all united in this attempt to ascribe political projects to water availability and use. During the Maoist era, the Party had put in place a series of development projects to expand, control and better the country's water supply. This was based on the idea that a more reliable and abundant supply would solve the plight of the poorest and thereby fulfil the Party's promise of a prosperous socialist future for the Chinese people. The rationale for such large-scale campaigns, I suggested in this last section, does not differ much from the water politics of pre-modern China.

Part III

The Anthropological Implications of Taking Water Infrastructures Seriously

The environmental story that I have been narrating thus far is one where humans and their environment mutually transform one another. Yu the Great's effort was to make workable land emerge from the Yangtze's waters. In turn, the waters of the Yangtze – now channelled

along a human-devised supply network – have subsequently affected the conditions of Chinese society, adversely affecting later dynasties and planting the seeds of future human intervention on that same network. Rather than having a history of *equilibrium* with the environment, we have one of *non-linear* development (see Worster 1990, Scoones 1999).

This particular way of looking at human-to-environment relations, I will suggest here, should not be taken lightly, but rather unpacked to show the anthropological insights that might be gained from it. Therefore, before proceeding further in my analysis of Chinese water management and tackling the ethnography of its undergoing restructuring, I first need to succinctly position the discussion that will unfold in the next chapters within debates recently flourishing at the junction of anthropology, water science, political ecology, and science and technology studies about the “nature” of human-environmental relationships (e.g. Escobar 1999; Latour 2004). A theoretical bracket is requested here, for what usually goes under the dyad “environment/society”, as well as what constitutes our relationship with it, and the place that water has in all of this, have been “black boxed” for quite some time – i.e. “routinised away” from public scrutiny and discussion, thus forestalling their empirical understanding. Common sense suggests that the “environment” is where water is found in its “natural state” and ready to be taken (see Linton 2008), while our very limited experience of the latter comes mainly through our household taps (Illich 1985: 75-76). The relationship of humans with water is arguably “thicker” than that, however, and it includes everything that needs to happen before we can actually get water flowing from the tap, not to speak of any of the operative irrigation ditches I would regularly bump into while in Crooked Cart.

A first key tenet of this thesis is that humans and the environment mutually constitute one another. As the anthropologist Veronica Strang puts it: “the assumption that humans merely engage with natural forces masks the reality that 'the environment' is a creative product of culture” (2009: 29). The story of Yu the Great explains this well: mythological China – its land and environment – is, quite concretely, the mass of land gaining the surface thanks to Yu's dedication to flood control.

Building on this, we could push the argument further by pointing at what actually happens when humans interact with their environment. This interaction is never one-directional (i.e. humans acting upon nature; nature striking back), but fundamentally “recursive” or

“cyclical” (Strang 2004: 5; Blatter, Ingram, Doughman 2001: 20; also Descola, Pálsson 1996; Ingold 2000). Humans are constantly engaged in acts of transformations of their “environment”. In turn, these transformations loop back – often unpredictably as in Elvin’s account – to significantly alter the context in which further human and non-human induced transformations take place.

In fact, humans are not the only forces shaping and reshaping the environment. Take the case of aquatic environments such as rivers or seas. As the anthropologist Franz Krause has aptly noted in relation to the Kemi River (2011, 2013) in Finnish Lapland, it is the river itself that exerts force on the environment, through erosion and sedimentation which considerably alter the appearance of the river, thus forcing humans to adapt their plans and desires to the shape-shifting conditions of its flow. Moreover, other living species may also partake in the effort of producing what we call the environment – e.g. by transforming dead waste into life nutrients – as Anna Tsing and collaborators noted for mushrooms (2009) and Stefan Helmreich for marine micro-organisms (2009). Differently put, rather than being a static object humans simply act upon, the environment is an emergent entity of interconnected human and non-human activities (e.g. Callon 1986; Latour 1993; Hathaway 2013: Ch. 6).

That is to say that the environment is not a “place” from whence to take what we need, but rather a constantly evolving entanglement of non-living, modifiable elements and living species interacting with one other in complex ways. Humans thus never fully control water, but they merely *co-produce* the modality of its appropriation. Actions undertaken in the past and in conjunction with other species (and water itself) may in fact have an effect on present and future interactions with the environment, and with water in particular. Thus, because the effects of the massively transforming acts undertaken in various periods of Chinese history are cumulative and determine the conditions under which humans interact with water, present day Chinese water management already carries the heavy environmental load of such disruptive history.

That is to say that the unintended consequences ensuing from the engineered appropriation of water are not fully explained by “internal” conditions alone (e.g. below-standard infrastructure), but by taking into account the fact that the environment is both *plural* and has a *history*, i.e. it is constantly being remade by the aggregated actions of said forces. For

this dissertation, it is the reverse of this argument that matters most. Environmental issues and natural crises are never simply “natural” – never about the unpredictable outburst of floods or unfolding of droughts – but always about humans’ concurrent participation in them. Chapter 2 and 4 will dwell at length on this point.

The second important consideration underpinning this study is that in such a *co-produced* environment, humanly devised infrastructures feature prominently as a vehicle of water flow. Waterworks of all sorts – e.g. irrigation channels, dams, wells and pressurized pipes – have now definitely become the preferred human strategy to move water across and fix it to places and times. The desire for a well-watered world, so vividly encapsulated by Yu's story, is translated, in China and elsewhere, into institutional and infrastructural projects of water abstraction and circulation.

Water availability is now almost completely mediated by humanly produced infrastructures that capture and distribute it. One point that has emerged from the recent engagement of anthropology with infrastructures (von Schnitzler 2008; Anand 2011, 2012; see Larkin 2013 for a review) is that socio-technical procedures of water distribution and circulation are poorly understood and are frequently neglected by the general public, to the point of becoming “invisible” – culturally moot and insignificant to public opinion – though they might actually be hyper-visible and bulky as a dam or a sluice gate (Larkin 2013: 329; 336 also Elyachar 2010). This thesis makes an effort to “open up” the “black box” of modern water management, showing the interplay of technological, institutional and human factors in the production of various water services in the Chinese countryside.

What is important to underline here is that the question of the infrastructure's “invisibility” (Starr 1999: 380) is less pressing for my case – after all, for the great majority of my research participants water infrastructures were actually “visible”, as we have seen in the initial vignette – than the point about their *agency*. As with some other key terms employed in this theoretical discussion – e.g. “black boxing”, “network” and “non-humans” – speaking of infrastructure as having agency means gauging the contribution that science and technology studies (STS) could give to an ethnographic understanding of water management (in particular see Latour 2005).

When I say that water infrastructure has agency, I intend to point out its ability to bring

people *together* and to *encode* social goals and values. Think what happens when a water reservoir is built, such as the Big Bridge Reservoir I mentioned above. A dam allows stored water to be amassed in the form of a lake. An ensemble of technical and bureaucratic figures is thus summoned to control the discharging of water – i.e. its social use. Based on what rules are developed to regulate the stored water, other figures might then appear: demanding farmers, industrial corporations, thirsty urbanities as well as power brokers who can exploit the possibility of creating connections between possible recipients and allocators. In other words, the reservoir intervenes in the drawing of substance-specific connections – i.e. relationships that pass through water – among previously unconnected or differently connected actors, thus producing what I will call a *water network*.

What anthropologists and scholars of science and technology studies frequently underline at this point (e.g. Riles 2005, 2008: 617-24; Bray 1997: 3, 2013: 187), is that, the above *transition* – from freely flowing to artificially stored water – is also a *translation* into novel regimes of knowledge, practices and values. Big Bridge Reservoir stores water behind walls. It is now from the specialised authority supervising the Reservoir that *any* water in the community has to be drawn. The practice of regulating water consumption via reservoirs thus becomes – also thank to a supporting narrative made by science – the only and more rational way of drawing water, that is, the most *valued* one. While the reservoir itself now *encodes* a value-system made of preferred managerial practices, alternatives to these starts to be depicted as irrational, backward or inefficient, in sum *de-valued* and morally debased, as Chapter 5 and 7 will show.

That is to say that what usually goes unnoticed about water infrastructure is not the (crucial) work it does on water – the fact that water gets delivered, treated, purified and made available to production and consumption thanks to the interlocking of different water technologies – but rather, what they do to *people, ideas* and *relations*. This includes how they connect or disconnect them, and how they help “creating and solving ethical challenges” for humans (Bray 2013: 176; Lansing 2006: 210). Precisely these assemblages of simultaneously material and immaterial operations will be one of the principal concerns of this dissertation. Following on from the work of anthropologists such as Nikhil Anand (2011, 2012), Antina Von Schnitzler (2008) and Francesca Bray (2013), this thesis (in particular Chapter 3 and 5 and 7) will be similarly concerned with investigating what the

operations of water technologies, infrastructure and institutions do to the people who get stuck into them: what type of relationships, ideas, and ethical commitments they contribute to producing in contemporary China.

Conclusions

My point in this first chapter has been that water management in China belongs to a series of collective endeavours that have actively concurred in the creation of a native Chinese notion of good government. In China, the construction of water infrastructures, such as dams to control floods and canals to irrigate wastelands, have for many centuries represented the locus where the idea of the common interest was construed, the legitimacy of the ruling elite put on trial and where important decisions of political economy were taken. For centuries, the Chinese ruling elite aimed at expanding its control over water sources. To open new waterways, control old ones and harness previously untapped water sources has constantly been the preferred strategy to secure water access to its people, establish new traffic routes, and irrigate the land.

In water management studies this approach – involving the intervention of the state and the mobilization of collective labour – is usually referred to as a “supply side” approach, that is, an approach to water use that is mainly concerned with expanding the available quantity of water as opposed to containing and directing its demand. Yet, the “good” of supply side government has been merely synonymous with what is “good” for the here and now. Short-sightedness and self-serving water management have eventually led to the present environmental predicaments, which pose a threat for the present and future well-being of the Chinese population.

The reason for telling this long and complicated story is to demonstrate that the reckless harnessing of water sources across various periods of Chinese history has been heavily characterised by a supply-driven, expansionary agenda. It is this agenda that has caused cumulative negative consequences for the Chinese environment and for all living species dwelling in it. An important point made by environmental historians such as Mark Elvin, Robert Marks, and Vaclav Smil is that China may never fully recover from what has been done to its physical environment. Robert Marks writes that: “the combination of China's very long history of environmental degradation [...] may have created a situation in which

China's natural environment has progressively lost its resilience and ability to recover from the damages inflicted by humans” (Marks 2012: 335).

Thus, it is against this very bleak backdrop of alleged environmental irreversibility, that this thesis will make an effort to look for what Chinese people are doing to recalibrate their relationship with their environment, and especially with water. In the second part of the Introduction, I analysed the emerging consensus that is growing within China as to how to resolve the present crisis. This consensus consists in moving away from exclusively state funded, supply-led solutions, to consider what the “market” could do for the Chinese environment, a movement that is intimately tied up with broader, global trends in the ways in which the state is imagined to operate. However, my contention here is that, while the Chinese state is indeed starting to adopt market mechanisms to control and circulate water resources in the country, as the next chapter will show, the way in which the state works at the local level maintains striking similarities with how it operated in the past — the “co-acted” model I advanced in this chapter.

Chapter 2

The Political Economy of Water and the Production of Vulnerability in the Contemporary Chinese Countryside

Old Z, Master Du, Master Du's four-year-old grandchild and I were walking the mud road that circled around Pitch-Black Plateau Village, a mountain village 5 km north of Crooked Cart. It was my second day in the village and only few weeks since my arrival in Crooked Cart Township. I had met Master Du through Mr Pu, the Head of Best Water Co., a newly created state-owned enterprise supervising the water supply in the area where Pitch-Black was located. I was interested in studying the local Water Users Association, a non-state farmers' association apparently in charge of the village's water provisions, and Master Du happened to be its former leader. That day, I had many questions I wanted to ask Du, but it seemed that he and our common friend Old Z from the Crooked Cart Water Bureau wanted to climb the hill, to show me what they considered a breath-taking panorama.

As we walked past one exposed water pipe, Master Du stopped as if something important had suddenly come to his mind. He pointed towards the pipe as it ran through a thick pine grove, and asked us to follow him. Behind the grove, a cleared grassy space hosted a cement pillar, which leaned against a rising earth wall. The pipe entered the pillar to disappear underground. While Master Du's grandchild was playing in a pool of dirty water that was leaking out of the pipe, Du asked me to go closer to the pillar and read a string of Chinese characters that was carved into its surface. It read: "South-North Water Transfer Project for the People" (*Nanshui Beidiao wei Renmin*).

I mumbled, not knowing how to react. To my knowledge, the North-South Water Transfer Project was a massive, state-founded water reallocation programme that consisted in diverting water from the Yangtze River, the longest river in Asia, to the North of the country, where the Chinese capital, Beijing, needed it the most. My bookish, pedantic mind lingered on the project's figures. The North-South Water Transfer Project promised to carry 44.8 billion m³ of water per year to the thirsty north of China, thus remedying the chronic water shortage afflicting the region. I had no idea that an infrastructural project of that scale would also provide for the water needs of a remote, unknown village in north-eastern Yunnan, as appeared to be the case. What is more, the narrow water pipe, a centimetre in radius at most, which we had trailed up to the commemorative pillar to see, was hardly in

keeping with the supposed grandeur of the project.

“This pipe is very small,” I mumbled. “I always had the idea that the South-North Transfer Project had to be BIG!” Master Du and Old Z laughed loudly but said nothing. A few minutes later, we ambled silently back to the village. At the central basketball ground, a common feature of many rural villages in China, a group of people was playing mah-jong, the popular tiles-based table game. Old Z and Master Du joined the group, commenting on the game and asking who was winning. The noise of tiles being shuffled and traded was almost hypnotic, making me ruminate again on the surprising discovery of a North-South water transfer plan that diverted westwards. At some point, I asked Du to elucidate the matter for me. In response, he said: “Do you understand how mah-jong is played?” “Not at all!” I replied, puzzled. “Well, you don't understand mahjong as I don't understand water distribution (*ni dui majiang yiwusuo zhi, wo dui diaoshui yiwusuo zhi*)!”

While that day my follow-up questions as to how the village succeed in plugging its own water network into the North-South transfer project did not receive any plausible answers, my study of the Yunnanese water sector did not fail to surprise me with its frequent, unexpected revelations. Indeed, despite its ubiquity, water management is something that is rarely fully understood by the general public. Yet the analogy drawn by Master Du is a telling one: on many accounts, water management does resemble a mahjong game. For one, its rules are complicated and have many variants. In contemporary China, the transformation of flowing water into the purposeful project of delivering water services to its citizens is accomplished through and within a series of multi-sited arrangements – between central and local authorities, private and public sectors, rural and city needs, and between competing economic interests. Sitting at the mahjong table, you have as many “players” as water users, and the exchanged tiles arguably work like water allocations. In fact, when distributing water to users, water needs to be drawn from and discarded by other water users in precisely the same way as mahjong tiles. Moreover, at this “water mahjong table”, every single “player” sits with his own strategy in mind. Players will interact with one another, taking into account other players' strategies, and adapting to them. Water does not flow “freely” here, but according to the interplay of competing interests.

Unlike mah-jong, however, the rules regulating the water game are often designed not to

make interactions between players effective but to advance a specific political agenda. Based on the ethnography of Crooked Cart's water bureaucracy that follows, I will argue that in the broader scheme of things, it is not Chinese water users' interests that are actively pursued, but the fulfilment of policies whose logic may be unknown or unintelligible to the players of the “water game”. This means that, in contemporary China, water management tends to be a rigged game, in that only one of the players sitting at the table has the power to make up new rules. This player is the Chinese Communist Party (CCP).

In this second chapter, I will describe the Chinese water sector's players, rules, and their purposeful manipulation. Its overarching argument is that the political economy of water in Yunnan – the rules of the game – actively constructs scarcity and allocates drought-related risks differentially. While my field site's environment is endowed with plentiful water sources, since 2009 many of its inhabitants have experienced a diminished availability of water. Official media coverage easily blamed the shortage on climate change and unprecedented droughts, asking the populace to reinvigorate efforts to reduce water waste and consumption. However, the real problem was not one of scarcity, but of prioritized allocation. That is, right to water for some users was protected, while that of others was not. To keep with the mah-jong metaphor, it was not that the tiles played at the “water mah-jong table” were finished; they were simply no longer passed on. However, this rough play was indeed consistent with the rules of the game drafted in Beijing. The water policies dictated by the CCP, and patchily implemented down the administrative chains, were and still are – this chapter contends – contributing to the water shortage experienced by many of my informants during my stay.

To advance this argument, this chapter is divided into three parts. The first part will provide background information about the water sector of the People's Republic of China. As China is currently facing pressure over the adequacy of its water managing practices to meet international standards, my discussion will bring in a consideration of the efforts undertaken by the Chinese water bureaucracy to modernize the national water infrastructures and the legal and institutional framework under which they operate. This pressure derives from the widely shared perception of an impending water crisis, which has now become common currency among global water players. In this part, therefore, I also tackle the problem of drought and water scarcity at a global, national and regional level, dwelling on the reasons behind the global rise of the idiom of crisis.

In the second part, I present the local network of state and non-state agencies, the object of my field research. This bird's eye view of the various players involved in allocating, distributing and regulating water aims at providing a general understanding of how water flows in my field site as well as a sense of the level of coordination and complexity required for this task. This inherent complexity is one of the reasons why water comes to be allocated unevenly in times of reduced availability, thus contributing to the experience of shortage. In the third and last part, I consider the rules operating in and enforced by the Huize water network, and discuss issues of water pricing. Here I will spend some time considering the transformation of water into a commodity and the creation of a market for it within the local economy of my field site. The chapter will conclude by considering how centralised developmental policies of water management not only have an impact on the population, but also tie the hands of local allocators (i.e. water bureau officials) in making their own distributional choices for the community they work in. This last theme will be considered more fully in the following chapter.

Part I

Naming the Beast

In one of his trips to the drought-hit south-west of China in early 2010, the then Prime Minister of the People's Republic of China, Wen Jiabao addressed an audience of rural farmers, local cadres, and journalists. Referring to the upcoming national holidays for the Chinese new year, Wen delivered a comforting speech to the worried farmer, who had been going through – as Chinese authorities put it – the “worst drought in a century” (*bainianbuyu de hanzai*)²⁸: “The Party and the government will help you overcome the *drought disaster* (my emphasis) and ensure you have a happy Spring Festival”. Wen assured the farmers that the government would intervene to “guarantee enough drinking water for local people and livestock, and at the same time make preparations for the spring farming”.²⁹ Unfortunately for Wen, this was neither his first trip to the rural countryside,

28 See the reportage by *China Daily*, CCP's in-house organ, online at <http://www.chinadaily.com.cn/china/2010drought/index.html>. For a critical commentary on the official media's scaremongering on the Chinese water crisis see <http://view.news.qq.com/zt/2010/bnby/index.htm> (in Chinese). Last access 18/03/2015.

29 *China Daily* 2010, "Premier visits drought-hit southwest." Xinhua, February 14, 2010. Available online at http://www.chinadaily.com.cn/china/2010-02/14/content_9469676.htm.

nor would it be the last in the attempt to confront the country's water problem.

Indeed, according to various international agencies working in conjunction with the Chinese Water Ministry (World Bank and AusAID 2001; World Bank 2009; Asian Development Bank 2009, 2011), the whole of China is currently experiencing tremendous pressure on its water resources. In recent years, “water scarcity” (*qeshui* or *shuiyuanbuzu*) has become the buzzword of the Chinese water sector³⁰. News agencies have not failed to notice the critical situation China is now considered to be in, with hordes of newspaper articles, books, academic workshops, and documentaries being produced on the topic³¹. As we have seen in the Introduction, the interest in the water issue showed by the Chinese public finds its place in the growing “climate” of environmental crisis brought about by a scientifically informed global debate over the “footprint” (Wackernagel, Rees 1996) our modern ways of producing marketable goods has on the planet. This “footprint” is simply too big, it is argued, inhibiting the capacity of the planet to regenerate those resources human societies need the most, including water. In the dissemination of this often-technical debate, however, it is the idiom of *scarcity*, *natural disaster* and *emergency* that gains the upper hand (Hoffman, Oliver-Smith 1999). Like Wen Jiabao's remark about the “unprecedented drought”, this language ends up shielding from view less evident, structural variables affecting the physical availability of water in particular locations and times. This point is one that is often stressed in anthropological and human geography-informed debates about the production of environmental crisis (e.g. Metha 2010: 2; Harvey 1996: 144-50), and this chapter follows their lead.

30 A quick search on the website of *China Water Resources News (Zhongguo Shuilibao)*, the official publication of the Chinese Ministry of Water Resources, finds that between 2001 and 2014 this newspaper published 5292 articles relative to water shortage (*qeshui*). That is roughly one water shortage article a day for the last 14 years.

31 The water debate in China is galloping, and hard to follow in all its ramifications. He Bochuan, who appeared briefly in the Introduction, has certainly been instrumental in kicking off the debate (He 1991: 42-45). The discussion received widespread attention in 2004, with from a former *South-China Morning Post's* journalist, named Ma Jun. The debate was then reignited ahead of the Beijing's Olympics, by a Shaanxi Province official who asked compensation from the central government for the damages the Olympics' water diversion projects caused to his province (see <http://news.bbc.co.uk/1/hi/world/asia-pacific/7266681.stm>). In 2010, the debate was once again back in the headlines, thanks to a book published by an ex- People's Liberation Army official, Li Ling. In his book, called *Tibet's Water will Save China (Xizang zhi Shui Jiu Zhongguo)*, Li argues that the only solution to the Chinese water crises crisis rests in tapping the so called “Asian's Water Towers” – the perennial glaciers of the Himalayas ' perennial glaciers – located in the Chinese Province of Tibet. Finally, it is a recent Sino-Canadian documentary, of recent publication, called *Waking the Green Tiger* (2011), that is once again putting the spotlight on the Chinese water problem. The documentary covers various popular campaigns against dam projects in north-west Yunnan, showing the rise of a Chinese environmental movement (see <http://www.facetofacemedia.ca/page.php?sectionID=2&pageID=107>).

Therefore, before engaging with the impact that the scarcity of water has on China, I want to remind the reader of a point made in the Introduction, namely about the “transiency” of fresh water. Fresh water is “transient” because it is never fixed to a single space, form or time. As a geographically unbounded flow resource, water is, in modern societies, channelled into the built environment so that it can be put to human use. Flowing water is also part of a hydrological “cycle” (see Linton 2008) that regenerates its availability through time. Soil evaporation, cloud formation, rains, snow and glaciers are all part of this cycle, making of fresh water a specific, time-constrained manifestation of the transient chemical bond of oxygen and hydrogen. Because of these physical qualities, human control over water needs to come to terms with two problems: making water available to water-poor areas, and taking into consideration the fluctuation in the availability of flowing water through time. These are the “structural” variables connoting the availability of water for humans.

In this regard, Chinese water resources are not exceptional. In China, flowing water shows a marked geographical asymmetry in its distribution. The South is water-rich, as some of the planet's longest rivers flow through it, while the North (including West China) is water-poor, gripped as it is by the Gobi desert. Bringing fresh water from the South to the North – the South-North transfer scheme I was earlier surprised to find part of in Master Du's village – is one of the context-specific preoccupations of the Chinese water sector. Yet, in relative terms, China's fresh water endowment is far from meagre. On the contrary, it is actually the world's sixth greatest. However, its per capita availability is only one quarter of the world's average (World Bank 2009: xx), due to the massive population inhabiting its northern regions. Moreover, Chinese rain patterns are also seasonally marked, as most of the country is affected by a monsoon climate, while other areas are characterised by low precipitation and aridity.

Nonetheless, the problem of water scarcity is – and here is the point that should be kept in mind – *by definition* a phenomenon arising from the correlation between a time-constrained supply and a time-specific demand. It is therefore important to note from the outset that, albeit often portrayed as a “natural disaster” – as in Wen Jiabao's drought speech – water scarcity is always a “relational measure of experience” (Samuel, Robert 2010: 117), indicating a lack of fit between the amount of water available at a specific time and the societal demand for it. Therefore, *scarcity* is a relational state that should come as

no surprise, as well as something not entirely dependent on the natural availability of water. *Emergency* and *natural disaster* are just not the right terms to describe its manifestation. As such, water scarcity should not be seen as the outcome of unforeseeable natural phenomena (i.e. drought), but related to the disregard that human demand shows for temporal and spatial fluctuation in water availability. Of course, this is not to say that water is an unlimited resource – annually China captures almost 80% of its total accessible runoff, according to the most recent available data (Cao et al. 2012: 519) – but that the social experience of water scarcity is one not dependent on the exhaustion of water sources in a narrow sense. I shall explore this important point in more detail later on in this chapter. For now, let us turn to the social impact that water shortage has on China.

China's Water Problem

When we talk about water scarcity, we need to know first what water uses are most affected by it. In the following discussion, I will focus mainly on domestic (e.g. drinking, cooking and sanitary) and agricultural (e.g. irrigation) uses, while referring only in passing to industrial (e.g. electricity generation; commodity production) ones. Water for all these uses comes from three different sources: rivers, rain and groundwater. These water sources are no longer considered able to meet the increasing demand coming from within China.

Domestic use is the greatest source of concern. The availability of sufficient clean water for common citizens appears now to be severely threatened. Recent data suggest that the biggest water basin in the country, the Hai River basin that supplies water to two of China's fastest growing and most populated cities, Beijing and Tianjin, is now de facto incapable of sustaining the local demand for water (World Bank and AusAID 2001). To fully understand this figure one has to consider that Chinese water supplies are heavily polluted, with municipal waste water being the first cause of pollution, as only 56% of it is treated in some form (World Bank 2009: 12; Gleick 2009: 82)³². Pollution has a huge impact on the total amount of water available to the population, as it reduces the total quantity of fresh water that can be supplied, thus producing *scarcity* (e.g. Economy 2004; van Rooij 2010).

³² The figures on water pollution in China are not uniformly accepted. In 2010, China Water Risk – a Hong Kong-based think-tank – reported that the major culprit of water pollution in China is the industrial sector, with almost 50 billion tonnes of its wastewater being discharged annually (7). In an interview given in early March 2014 to the same think-tank, Professor Ma Zhong, the dean of the College of Environmental Sciences of Renmin University of China, declared that "China's water pollution is mainly caused by businesses" (available at: <http://chinawaterrisk.org/interviews/fundamental-issues-in-industrial-wastewater/>).

One example is what happened in Wuxi City, Jiangsu Province in 2007. The waters of Lake Tai – both the main drinking water “faucet” for Wuxi dwellers and the “sink” for most of its locally generated waste water – were affected by a large-scale algae bloom, resulting in almost 70% of the local water supply becoming unsuitable for consumption. Because of that, 2 million people faced drinking water scarcity (ADB 2011: 118). Similar events occurred around the same time in Kunming, Yunnan Province, as the nearby Dianchi Lake experienced a series of identical massive algal blooms (e.g. Zhou, Lei 2010: 32).

If anything, the situation in the countryside appears even more dramatic. Waste water treatment plants are very uncommon in the countryside, and therefore people living there are forced to rely on a polluted supply or on unhealthy water-saving practices, exposing themselves to life-threatening diseases (World Bank 2009: 20; Lora-Wainwright 2013; Tilt 2013). When all these issues are taken into account, the number of Chinese people who would benefit from an increment in their daily intake of safe water is around 300 million (Gleik 2009: 91).

Industrial and agricultural uses are also threatened. Economic damage caused by failed electricity generation from hydroelectric dams is estimated to be at least RMB³³ 24 billion (USD 3.8 billion). Moreover, agricultural drought, i.e. a multifactorial phenomenon liable for at least 30% agriculture output reduction in a given year under the Chinese Government’s definition, has been estimated to be the direct cause of 48% of China's total economic loss in the last thirty years (ADB 2009: 1). Scarcity is here an overt product of man-made mismanagement. Irrigation infrastructures are a case in point. According to international observers, a great number of China's irrigation infrastructures are of poor quality (e.g. Mollinga et al. 2005: 340). Water-pipe leakages are ubiquitous, and the national water supply network is considered one of the lowest performing utilities in the world. Moreover, at least one study suggests that the aggregated figure for water delivery in China shows that only 50% of irrigation water from primary canals is actually delivered to fields (World Bank 2009: 26). This means that poor infrastructural quality significantly contributes to the scarcity faced by the Chinese agricultural sector. I will come back to these issues in chapters 6 and 7, addressing the problem of infrastructural

³³ *Renminbi*, Chinese currency. At the time of research, the exchange rate was circa 1 RMB = 0.1 GBP/ 1 RMB = 0.16 USD.

mismanagement.

To the health and economic damage scarcity generates, one should also add the long-lasting effects that diminishing water availability has on the environment. Ed Grumbine, a prominent ecologist currently working in Yunnan, mentioned during an interview with me in September 2012 that issues of environmental flow – the amount of water discharged from dams to the environment to fulfil the most basic needs of the affected ecosystems – were rarely addressed in any of the water related projects he had participated in in China. Unfortunately, this environmental short-sightedness is leading to an increasing rate of specimen loss with unknown long-term consequences for the Chinese environment (Grumbine 2013: 26).

A fourth and final issue with water scarcity is the ensuing social upheaval. It was only a matter of time before Chinese citizens started protesting about the state of the country's water sources. In the last decade, the confrontation between farmers and the local administration around water allocations has risen (The Pacific Institute 2008). The media have reported many conflicts. For instance, in July 2000, civil unrest erupted over the use and allocation of water from Baiyangdian Lake – the largest natural lake in northern China. Several people died in riots by villagers in Shandong after officials cut off water supplies. In August 2000, six died when officials in the southern province of Guangdong blew up a water channel to prevent a neighbouring county from diverting water³⁴. As if glossing over the endemic nature of such disrupting conflicts, the ex-director of the Policy and Regulatory Department of China's Ministry for Water Resources, Gao Erkun, has reported that for the period 1990-2002 the number of water quantity conflicts recorded by the Ministry reached 120,000 (quoted in Hildebrandt, Turner 2004: 99). That may well be an understatement, since the Chinese Ministry of Environment Protection claimed that for the year 2006 alone, the country saw 51,000 pollution-related collective incidents, the majority of which were about water pollution (Ma, Schmitt 2008: 97; Ma T. 2009: 35; also Jun 2000).

Water Crisis in Yunnan

All the aforementioned issues are now becoming the everyday reality of water use in

34 Pottinger 2000. "Major Chinese lake disappearing in water crisis." Reuters Science News.

Yunnan and in its North East area where this research was conducted. When I first arrived in Kunming, Yunnan's capital, in late October 2011, an “aggressive” poster campaign for raising awareness of water scarcity was plastered everywhere around the city. Both Kunming's airport and the Northern Bus Station –from where I would hop on the bus toward Crooked Cart Township – hosted huge posters denouncing the water crisis. To the casual reader, these would suggest one should “Protect the Earth, Save Water” (*Baohu Diqu, Jieyue Yongshui*). Not only travellers were subject to these fierce warnings: public toilets around Kunming would also remind you that “South-West China is still in drought, please save water. Really appreciate your environmental friendly action. :-).” Taxis hopping around the city would also have blinking LED messages on their roofs, asking people to “restrain from wasting water, rainfalls are still not enough” (*jinzhi lanyong shuiyuan. jiangyuliang bu zu*).

Despite the advertised naturalization of the water problem – rainfalls are not enough! – Yunnanese public opinion has always been very politicised and combative in the attempt to “de-naturalise” and re-embed in society the problem of scarcity. In a beautiful book, *China's Water Warriors*, Andrew Mertha has documented the staged opposition of a milieu of national and international NGOs, workers, urban citizens, farmers and sympathetic party officials to a water development project which would have led to massive water dispossession for thousands of people. The campaigners militated against centrally imposed policies which would have led to the over-damming of one of Yunnan's most historically important and ecologically rich riverscapes, the Nu River valley. Chinese anthropologists have also taken sides in this struggle, with prominent figures such as Jing Jun and Zhu Xiaoyang fighting the ideological war of defining who has to be considered the main culprit of the regional water shortage³⁵.

Intellectual and political resistance notwithstanding, since 2009, some parts of Yunnan have started to suffer from a diminishing availability of water. While Yunnan has been experiencing several months of decreasing rainfall every year, its greatest problem with water availability stems from mismanagement. Seemingly, pollution and a process of severe deforestation (see Chapter 1) have considerably undermined the province's ability to provide suitable water for humans and agriculture (Yang, Zhou 2013). Huize County,

35 See for example this Zhu Xiaoyang's piece published on *China Dialogue's* website. (<https://www.chinadialogue.net/article/show/single/en/3587-Resisting-the-urban-dinosaurs>).

where Crooked Cart is located, has been a major victim of this Yunnanese trend³⁶. In 2010, Professor Cai Huansong of Guangdong Literature and Art Vocational College posted on the internet some intense pictures he had taken while on a trip to Mao Village Reservoir, Huize County, the biggest reservoir in the area and Asia's biggest earthen dam. The pictures showed an empty, eroded soil upon which humans, animal and plants would similarly struggle to survive³⁷. Cai's pictures had an immediate resonance throughout Yunnan, and put the Huize county government in the limelight. By 2010, quenching Huize citizens' thirst had suddenly become the priority for the local government. When I first met with Huize Government officials in November 2011, they insisted that they were going through a third consecutive year of “matchless” (*wubi*) drought. When I eventually left my field site for London in December 2013, the official length of the drought had extended to five years, as if nothing could be done about water shortage except just go through it. What was the government doing besides counting the drought years?

Figure 3: Environmental Warnings in Kunming



36 See local media coverage at http://society.yunnan.cn/html/2011-09/04/content_1806985.htm and http://society.yunnan.cn/html/2011-09/04/content_1806962.htm (in Chinese).

37 Cai's photographs are available at <http://www.cphoto.net/article-68299-1.html>.

Thinking of a solution

While it may be one of the worst, China is far from being alone in its water problem. The World Bank reports that 80 countries now suffer water shortages that threaten health and economies, while the number of people still without safe access to sufficient water numbers around one billion worldwide (Gleick 1999). Moreover, it is estimated that almost 2.5 billion people (40% of world's population) lack access to adequate sanitary water (Metha, la Cour-Madsen 2004). As discussed in the Introduction, in the last thirty years water experts, bureaucrats and politicians have slowly reached a consensus around a reform of global water governance. The state, they argue, ought to be substituted by the market, if a sustainable water sector is to be attained. In this debate, the faulty management practices in need of revision are usually grouped under the “state hydraulic paradigm”, while the new approach is often referred to as the “market environmentalism paradigm” (Bakker 2003: 22-33).

The “state hydraulic paradigm”, widely subscribed to during the 60s and 70s under the aegis of the fast-growing economy of the West, is primarily concerned with universal access to water. What this paradigm does is to provide a supply-side solution to water management problems. If users demand more water, the hydraulic state will look into how to supply more. In this approach, the emphasis is thus put on developing new sources of supply, by building reservoirs, diverting water or tapping underground sources. This universalistic approach to water development laid the foundation for a specific ethic of water management, one that assumed water access to be essential for human dignity and for participation in public life. Fairness in payments and distribution underpins this paradigm, putting production and treatment costs on the affluent, the big consumers or on the collective (e.g. the state).

As we have seen in Chapter 1, the history of Chinese water management has arguably been dominated by the “state hydraulic paradigm” and by supply-side solutions. The Chinese ruling elite went to great pains to keep water sources expanding and to ensure water for agriculture. In the case of the Communist Party, Mao thought that “water is the lifeline of the people” (*shuiziyuan shi renmin de shengmingxian*), as one motto hanging in Crooked Cart Water Bureau's office read. For Mao, water was needed to sustain the nation and to prove that his classless society was capable of ensuring better standards of living for its

rural populations than what was provided by its capitalist opponents (Wang 2011).

While this paradigm does a very good job in tackling the issue of equal distribution and in securing water access, it does have some blind spots. Above, I mentioned the two “structural” variables of water management: bringing water where there is none, and coping with fluctuating availability. Indeed, the “state hydraulic paradigm” could be seen as solving the first issue while failing to address the second. Scholars working on the Chinese water sector have indeed pointed out that in the last thirty years the Chinese state approach to water management has given “a green light to a 'pump race', which caused a series of problems such as dried rivers and ground subsidence” (Wang X. 2007: 204; also Nickum 1998: 896). Keeping pace with an inflating economy resulted in utter disregard for temporal fluctuations in water availability, thereby contributing to the production of the present shortage³⁸.

This is where the “market environmentalism paradigm” comes in. In the 1980s, the water debate in China and elsewhere moved on whether the interests of the water sector could be best served by the full marketization of the resource. Proponents of market solutions to inexpediency in water use (induced by the universalistic and expansionary quality of state-led water provisions), reasoned that the “state hydraulic paradigm” had led to an overconsumption of water sources while failing to provide safe and clean fresh water to its users. Furthermore, market environmentalists argued that only by making water a commodity and its users, customers, could both “structural” issues with water management be solved. It was crucial, they argued, to shift from supply- to demand-side solutions. With a supply-side approach, regulations are about securing water availability for all. With a demand-side, regulations are about letting users decide how much water they actually need.

38 Water reservoirs and other water storage solutions are generally understood to address precisely the problem of fluctuating availability. Why is it then that dams and reservoirs have not been able to cope with this problem in China? A simple explanation for this is given by the so-called *Jevons paradox*: the increase in efficiency with which a resource is used tends to increase (rather than decrease) the rate of consumption of that resource (Alcott 2005). That is, with dams, water becomes available and cheap throughout the year. This creates incentives for the local economy to tap more stored water than the amount drawn prior to storing it, producing a greater aggregated consumption. That the *Jevons paradox* is one of the crucial factors in the production of the Chinese Water Crisis has been demonstrated by Ma Jun in his book (2004; see also Molle 2008). Another factor is that water reservoirs and dams are never as efficient and environmentally friendly as they claim to be. Storing too much water, for instance, can actually impede agriculture, as stored water can more easily overflow and infiltrate the soil, producing waterlogging (see Marks 2012: 301-12).

If users are in the driving seat, it is argued, water will flow according to actual, measurable social demand, while natural and temporary fluctuations in the supply will trigger a rise in price, leading eventually to a self-regulating demand. This paradigm shifts the locus of water politics from the state to the users. As we will see in Chapter 4, the water users are now thought of as the leading players in the water game. China enthusiastically welcomed the new consensus, piloting many components of the demand-side reform, almost all over its territory, toying with marketable water rights, users' associations, and installing water meters in every rural household (Speed 2009a, 2009b; Cai X. 2008).

Evidence from my field site shows that while market environmentalism (*ziyou shichang huanjingzhuyi*) has indeed started to inform the Chinese water sector and its regulations, the reality on the ground is much more complex. For one thing, the old ethos of universal access still survives among local water workers and common citizens, making supply expansion still a viable choice. Secondly, demand management has its own shortcomings, in that it puts the burden of reduced consumption on the less affluent, as I will show below. Thirdly, water is a politically charged resource that is still deemed crucial to achieve centrally set development targets³⁹. The heavy, visible hand of the Party often needs to guide the invisible hand of the market. This point is often overlooked by market environmentalists, who think that water should and could be treated like all other commodities. While in Huize County, the water bureaucracy is indeed pushing the commodification of water, thinking it would be beneficial to all, this very project ends up being seized on by the Party itself, which is using the market to bring its own proper vision of China's future to life. It is from the combination of these patchily implemented market-based reforms – the rules of the game – and the ambitious development targets of the Party, that drought and scarcity ensue, becoming an everyday reality in Huize County.

Part II

The Water Network

39 Regardless the alleged water crisis, PRC today requires the unthinkable from its water sources. By 2015, the PRC aims at producing 120 million Kw/year of hydroelectric power along with an 18% rise in rice production (that is double the amount of rice per Ha produced in 1975). By 2015, the government also aims at achieving full cereal self-sufficiency. All of this, while aiming at a 30% reduction in water consumption. See *China's Twelfth Five Year Plan (2011-2015)* available online in English at <http://www.britishchamber.cn/content/chinas-twelfth-five-year-plan-2011-2015-full-english-version> and Chinese at <http://www.ndrc.gov.cn/fzgh/ghwb/gjjh/P020110919592208575015.pdf>.

It is a general contention of this thesis that to fully appreciate what the common project of bringing water to humans actually entails, one needs to look at how the tiny, technical details that pertain to the allocation and distribution of water – such as its hydraulic and legal aspects – are creatively taken up by the people who are recruited into such activities. The daily activities of the people running common water supply, no matter how technical, are far from being repetitive bureaucratic tasks devoid of meaning: quite the contrary. In fact, the water workers I encountered during my stay brought to the “water table” not just the particular, petty interests of local power brokers, nor the passionless rationality of a faceless bureaucracy. As Annelise Riles puts it for an ethnographic context equally enmeshed with problems of administration and technical appraisal, my own informants were routinely confronted with problems that demanded “creative work, political mobilization, technical skills and considerable devotion” (2011: 46).

Yet, in contemporary China, the human dimension of water management is far from its most silent component. It is rather the surrounding water politics that determine the condition under which water is appropriated and distributed, considerably delimiting, as it were, the boundary of human interaction with and enjoyment of water. I will consider to what extent the “rules of the game” are manipulated, circumvented or upheld by my informants within the Huize water bureaucracy more extensively in the following chapter. Here instead I describe in detail the network of water institutions operating in my field site, and how this network functions as a vehicle for the particular water politics I have discussed above.

First, let me give a brief account of the natural network of streaming waters that constitute Huize County's natural endowment. Ten rivers cut across the County's territory and are tapped to provide water to Huize's inhabitants. One of these, the Jinsha River, is nothing less than the mighty Yangtze River in one of its upper reaches. It is on one of the branches of the Jinsha River, the Yili River, that the Greatest Earthen Dam in Asia, located a few kilometres south of Huize City and visited by Professor Cai, has been erected. Our journey into the institutional network base of my fieldwork starts from here.

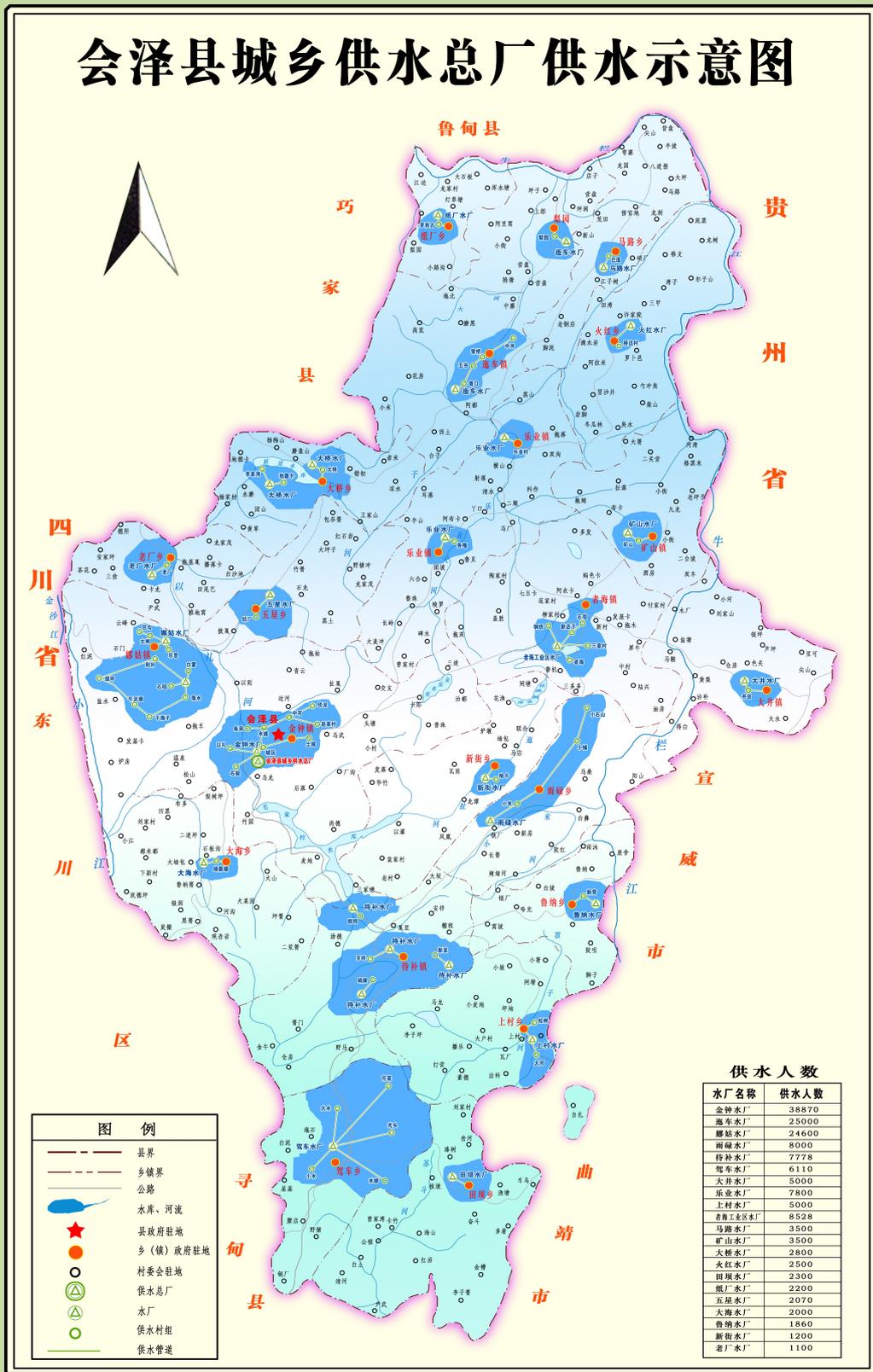
Huize County's Water Bureau (*shuiwujū*) was my entry point to the study of the Chinese Water bureaucracy. It was here that, in early November 2011, I met with Mr Yan and Mr Pu, respectively the Head of Huize County's Water Bureau and the newly appointed Head

of a state-owned water company operating in Huize County called Best Water Co. As a researcher affiliated with the Chinese Agricultural University of Beijing – a prestigious academic institution in which China's most renowned department of water and agricultural development is located – that day the two men vied with each other to see who could display the warmest and most gentle hospitality. My initial concern was to find a rural site where associations of farmers could be seen contributing to the management of water. From reading the relevant literature, I knew that in Huize County, 72 such associations operated (Liu X., Guan H. 2009: 73) — my only problem was how to gain access to them. In that respect, Mr. Pu showed himself to be the most helpful gatekeeper, introducing me to what would eventually become my home for the following sixteen months: Crooked Cart's Water Bureau (*shuiwusuo*).

In this section I explain how the local water bureaucracy is structured, what its services are and to whom these are targeted. Huize County (*Huize Xian*) is a mountainous area of North-East Yunnan under the jurisdiction of Qujing City. Ninety-five per cent of the county's territory is mountainous and average altitude is around 3,300 m. The almost 900,000 inhabitants are daily served by four major water reservoirs which distribute water to twenty-one different “water stations” (*shuichang*), the smallest administrative unit within the Chinese water bureaucracy. Crooked Cart Township hosts one of these stations, the Crooked Cart Water Service Building (WSB). The WSB is an old-style communist *danwei* or work unit, a compound where workers have their own offices, dorms and a state-run canteen. Until the 1990s, workers would not leave the *danwei* very often, as the state-subsidized canteen and dorms would provide a far better standard of accommodation and quality of food than the outside world. Now however, it was not uncommon for the people working at the WSB to stay in the *danwei* only for the working week or day, leaving for Huize City as soon as they could. Crooked Cart City is in fact a small rural, township-level city (*zhen*), whose underprivileged conditions are very reminiscent of a not too distant past. Of its 96,000 inhabitants, only a small fraction live in the city proper, while the majority reside in one of the twenty-seven villages (*cun*) under the city's administration. Bamboo Forest Mouth Village, Pitch-Black Plateau and Pear Field Village are three of these villages, which I visited often during fieldwork and that will appear throughout this thesis.

Figure 4: Water Supply in Huize County

会泽县城乡供水总厂供水示意图



A nested bureaucracy

Two different administrative offices are located in the WSB: the Water Bureau (WB) and the Water Engineer Office (WEO). The former is run by Mr Yong, a very talented, young party member, who supervises a team of five permanent employees and a small number of temporary members. The main functions of the WB are to coordinate the activities of the WSB with other government offices, to implement provincial and county-level regulations, to usher in higher-level officials on an inspection round, to approve infrastructural projects and to help devise their development⁴⁰. To a great extent, all of these activities are considered “political activities” (*shiye*) by the personnel of both offices, requiring excellent negotiation skills, a stiff character and unbridled ambition. On the other hand, the WEO – formally dependent on the WB – is more of a “business” (*qiye*), selling its services to a population of customers. The office is headed by Mr Song, a man in his thirties with a penchant for water pipes and bird hunting. Mr. Song presides over a staff of eight: one female secretary and seven male technicians. The WEO covers several practical aspects of water management: it collects drinking water fees; operates and maintains the local water purification station; repairs the drinking water supply network; and provides manpower for the construction of small water cisterns or other water conservancy projects.

The WSB staff can be divided into two groups: those who were already part of the water sector prior to the “opening reform” of the 1980s and those who came later. The former, such as Old Z at the WB or three of the technicians at the WEO, are Crooked Cart born, well-known figures who are generally very accessible to the population and inclined to go beyond their duties as government workers to help out. The latter—younger and better trained—could also be locals, but approach the work at the WSB in a different way, usually as the first step towards a better-positioned career or as a temporary stop. By November 2013, two people belonging to this latter group of workers had already left for other positions in the water bureaucracy, yet maintained cordial relationships with their former WSB colleagues. Both WB and WEO workers have a vocational college background (*dazhuan*), some having studied in Sichuan, others in Kunming or Huize City, and only recently have some of them attempted to gain a higher qualification such as a university degree in hydro-engineering or water management. At the time of my fieldwork,

40 At the time of fieldwork, Crooked Cart's water supply network was an intricate infrastructural arrangement of channels and pipes covering 7.5 km² and delivering irrigation water to 1,826 Ha of farmland.

Jiang Kai and my flatmate Shao Zhi were the only two people properly trained in water sciences. The former worked as a hydro-engineer at the WB, the latter spent most of his time operating the water purification station. Despite differences in age, occupation and educational background the WSB people all earned more or less the same, between 1,800 and 2,000 RMB per month.

It may be observed that none of the offices described above is concerned with allocative or distributive tasks; that is, these two offices neither decide where water should go nor have the power to make it flow somewhere specific. This is because the allocation and distribution of water happen not *in* a particular office but *along* the network of institutions through which water flows. Therefore, to gain the full picture one needs to look above, below and alongside the administrative level at which the WSB operates. Looking above, the WSB takes orders not only from the Huize Water Bureau, but also from Best Water Co. This Company, created one month before my arrival in Huize, has the delicate assignment of integrating rural water use (e.g. agricultural and drinking use) with urban use, which involves domestic sanitary drainage and pumping and electricity production. The very presence of this state-owned company indicates China's movement away from supply-side solutions towards demand-side ones. Mr Pu works on managing water consumption, trying to accommodate rising water demand from the urban areas with rising water efficiency in rural areas. He does that by investing the revenues coming from taxing water use in Huize City and installing water meters in the countryside, allowing rural users to modulate their water demand according to their measurable needs.

Both above and alongside the WSB, one finds the Great Leap Forward Reservoir Station (*Dayuejin Shuiku Shuiguanzhan*). This is an office supervising the water reservoir's routine operations, such as the supply of water to Crooked Cart Township. The Station coordinates its activities with the Huize Water Bureau, with which it sorts out how much water to discharge seasonally⁴¹ to sustain the local agriculture and drinking supply⁴². Under the new regulatory regime, influenced by “market environmentalism”, water is not delivered free to Crooked Cart Township, but is bought as a commodity by the Township government. However, delivering water is not just about trading water allotments with other state

41 Water for agriculture is discharged twice a year, between March and June, and between late September and November. Chapter 4 and 5 give more detail as to how irrigation water is delivered to Crooked Cart.

42 I report here some of the technical features of the Great Leap Reservoir. The Reservoir was completed in 1958 and expanded in 2002. Its has a capacity of 56 million m³ and supplies water to 55,000 entities in three different townships: Crooked Cart, Sangou and Big Bridge.

departments, but a politically charged endeavour. Water is a crucial input for many state entities, and therefore allocative decisions are not taken solely in accordance to policies drafted by the Ministry of Water Resources, the Station's superordinate authority. Targets of agricultural production coming from the Ministry of Agriculture, appeals for considering the basic needs of the local ecosystems mounted by the Ministry of the Environment, and municipal requests for ad hoc distribution also featured in a final allocative decision. Thus, above the WSB there exists a cluster of national, provincial and county level institutions that will not stand on ceremony, doing whatever they can to influence the allocation of water to their benefit.

If water allocation is already contested above the WSB, what happens below it, where water is actually distributed? Here, two main institutionalised entities are involved: the Village Committees and the Water Users' Associations. The Village Committees (*cunmin weiyuanhui*, VC) are a group of people elected by villagers comprised of three to seven members who serve their constituency for three years, with the possibility of being re-elected for a second three-year term. By Law, a VC is responsible for “village public welfare services, dispute mediation, maintenance of public order, and communication of villagers' opinions to township governments” (O'Brien 1994: 39). During my stay, I worked in several VCs around Crooked Cart Township and beyond⁴³, looking at how they contribute to water distribution and address relevant disputes (see Chapter 7). Party Secretary L, Master Du and Gao Zong are three VC chairmen (*zhuren*) who will appear in this thesis⁴⁴. As I will discuss in Chapter 4 it is thanks to their mediating skills if irrigation water is delivered on time to the villages they represent, or if farmers are accorded an extension of their allocated withdrawing time-slot to better water their fields. Party Secretary L and Master Du had in fact acquired the prestige they enjoyed in their community precisely because they would need no more than a phone call – as I witnessed many times – to convince someone at the Great Leap Forward Reservoir Station to keep

43 During my stay, I was able to follow closely the workings of the VCs of Bamboo Forest Mouth Village, Pitch-Black Plateau Village, Pearl Field Village, Stone Dragon Village and One North Village. For a particular research task I will describe in Chapter 3, I also came into contact with six other VC chairmen.

44 Other than being VC chairman, Party Secretary L, Master Du and Gao Zong had been or still were Communist Party Secretaries (*zhibu shuji*). This is not an elected position but an appointment by the local CCP branch. Because the law does not prohibit a VC chairman from also being a Party cadre, there is still a lot of confusion about the degree of independence this elected body has in rural China. For instance, Party Secretary L had long been a Zhu Family Village Party Secretary before being elected as Chairman of Bamboo Forest Mouth VC. The confusion remained unresolved even after the 1998 revision of the *Organic Law* (O'Brien, Li 2000: 488). The law was last revisited in 2010, with again little change in the matter of the Party's intrusion in village affairs (Alpermann 2013: 152).

the water flowing out of the reservoir for a few more days.

Below and beside the WSB one finds the Water Users' Associations (*nongmin yongshuizhe xiehui*, WUAs). These will be covered extensively in Chapter 4. Here I shall just inform the reader that, during my stay, Crooked Cart area had eleven such non-state associations, all of which were going through different stages of their institutional life. Some were in their infancy while others had just passed away. Most of them were stillborn. All of them, however, were supposed to collect irrigation fees (even though this task was very often taken up by the VC), write “water constitutions”, and keep an eye on water waste and infrastructures. Finally, one should mention the role of the common villagers in the actual redistribution of Crooked Cart's water. This was crucial, as I shall argue in Chapter 5. Here I note only that one way villagers contributed to the circulation of water was by reaching out for the state, looking either for collaboration or for confrontation, allowing the state to “see” when something went wrong in the provision of water.

Thus, at the Crooked Cart's “water mahjong table” sit a large number of players, all linked by the flow of water but separated by their different administrative duties and political objectives. From my overview of the water network, I ask the reader to take away the notion that the circulation of water is a multi-layered pursuit. Water is appropriated from the environment and distributed along a very complex network composed of state and non-state actors. Indeed, the over-complexity of the Chinese water management administrative framework, with overlapping and under-defined responsibilities, is often quoted in the relevant literature as being one of the major causes of ill-management leading to resource waste (Nickum 2005: 95; Webber et al. 2008: 621; Yang et al. 2013: 724; Dai 2012). The next and final section will show how “the rules of the game” that govern the flow of water along this network could produce scarcity in particular portions of the network by prioritizing some needs over others. At the water table, the game is rigged.

PART III

Cyclical scarcity

Up to now, we have witnessed China as it navigates through turbulent, water-scarce times. We discussed China's water management framework and the institutional actors taking part

in the effort of making water available and its consumption sustainable through time. Yet, we have not heard anything from anyone who is actually experiencing the water shortage and in what ways the shortage is affecting their lives. While statistical data and personal narratives about the extent and severity of the water problem will appear throughout the thesis, here I shall dwell briefly on Crooked Cart's villagers and their experience of scarcity.

Crooked Cart Township is composed of many villages. In turn, these are usually subdivided into smaller hamlets of approximately twenty households each. One would find these hamlets in the most unexpected places: clinging precariously to cliff faces or perched on towering mountaintops. Others nest in unreachable narrow gorges. Many such hamlets would not even have Chinese-sounding names, but Yi (e.g. A-wuo, A-du). Both Mr Yong, the Head of the WB and Jiang Kai, his chief engineer, were born in one of these remote hamlets. They used to complain to me that their life conditions had been unbearable, and that part of the reason why they had decided to get into the water bureaucracy was because they still have memories of how much their families had to struggle to bring buckets of water to their houses and farm plots. Indeed, water scarcity has been a constant of Crooked Cart's life. As I was many times reminded during fieldwork, none of those who lived on these mountains would have considered drought a “natural disaster” (*tianzai*). Rather, they would look at it as a cyclical phenomenon related to their geographical position (*dili weizhi*) that they needed to learn to cope with. As one farmer once put it, “It’s not that there is no water, the problem is that there is not enough when we need it the most, during farming season! It's always been like that”.

That water scarcity was not just a natural disaster ensuing from diminishing rainfalls, but a by-product of a rising demand in periods of fluctuating availability, is corroborated by some of the data I collected during fieldwork. Two are the indicators suggesting that water, both for irrigation and domestic use was not diminishing during the period of my research: the pluviometric pattern and the quantity of water discharged to Crooked Cart Township from the Great Leap Forward Reservoir did not diminish. I collected pluviometric data from three different sources: the Huize County Weather Station, official statistics from the WB database and official documents for intragovernmental communications from the same bureau. A comparison across this rainfall dataset suggests two things. First, that for the

period 2008-2013, no discernible downwards pattern can be detected.⁴⁵ Second, that statistics on rainfall vary, with the lower figures consistently appearing on the documentation used by the WB to communicate the magnitude of the local drought to other state departments. These communications were panegyric in nature, often ending with a series of drought relief measures successfully implemented by the bureau in the community. Rainwater was not consistently diminishing, as suggested by some of the officials we met earlier, but rather fluctuating.

There is more. Water quantity (as opposed to water availability) was actually increasing throughout the alleged drought period. This is best described by the data I collected from the Great Leap Forward Reservoir. In 2002, 1.5 million m³ of irrigation water was supplied to Crooked Cart Township. By 2007, this number grew four-fold. In 2012, the Reservoir released 6 million m³ of water to my field site. This is rather counter-intuitive evidence. How could we even talk about drought and scarcity if the amount delivered to the studied area had not been diminishing but rather increasing?

To understand this, one should recall that scarcity is a *relational* term, indicating not a thing but a relationship, an in particular, a relationship between a supply and a demand. It may well be the case that along with the supply, the demand was also on the rise, perhaps to such a degree that it became greater than the supply itself, hence generating the perception of scarcity. In fact, scarcity could be generated by a socially fabricated over-demand, as when more canals and water cisterns are built than those one could possibly fill up (e.g. Molle 2008). But there is also another way whereby water scarcity is produced, and this is when water is available, yet not universally so. In the same community, someone could be supplied with plenty of water, because it is easier, more profitable or strategic to do so, while others could be excluded from the supply. My argument is that both drivers of scarcity – over-demand and lack of universal access – are to be found in Crooked Cart. Here however I shall talk only about the latter, leaving the former for the

⁴⁵ The recorded patterns in mms according to the Weather Station (WT); WB official statistics (WBS) and WB intragovernmental documents (WBD) are: March-October 2008: 780 (WT); March-October 2009: 521,7 (WT); March-October 2010: 617 (WT), 665,8 (WBS), 486 (WBD); March-October 2011: 494.9 (WBS), 416, 437,486 (WBD); March-October 2012: no official statistics reported. For 2012, only one intragovernmental document mentions the amount of rainfall, specifying that "rainfall has been quite abundant this year (*jiaoda*)". The average for the period 1970-2000 in Huize City is around 745 mm (see <http://www.weather.com.cn/html/cityintro/101290408.shtml>). There is no such statistic for Crooked Cart Township proper. However, because of the higher altitude of the latter, the Head of the Huize Weather Station has clarified to me that average rainfall for the same period in Crooked Cart area should be considerably lower, around 550 mm.

next chapter.

One small drip can make a big difference

In Crooked Cart Township, common citizens are denied access to water by means of two different policies: water pricing and prioritized access. While this language is undoubtedly too dry to talk about what is, ultimately, a life-threatening circumstance, here I rely on interviews with water bureaucrats – who are very keen to use this technical language – to suggest that what is at stake here is a conflict between making water available to all, versus sustaining the “national interest” as defined by the Party. In Crooked Cart, scarcity is the outcome of the rules employed to make water circulate according to the interests of the Party. That is, the game is played not with, but against some of the players sitting at the water table.

To explain how scarcity is socially produced, I wish to start from water pricing. As a component of demand-side solutions to sound water management, the process of pricing – setting the “right” monetary value for the provision of water – is thought of as an instrument to regulate water demand. Setting the right price will induce water users to recalibrate their consumption on an amount of water they would not do without. This recalibration would eventually lead to less waste, and therefore expanded availability for all. A good example of this line of reasoning is found in Best Water Co.'s media strategy.

“One small drip can make a difference” (*Xiaoshuidi Zerun Daminsheng*) is a document published by Mr Pu to commemorate the first year of Best Water Co. activities. The document – a non-fiction, celebratory narrative of how Best Water Co. is helping poorer households to cope with water shortage – was later used by *Huize Television*, a state-owned channel, as the script for a two-hour, prime-time show on the victims of the local drought⁴⁶. Mr Pu’s story starts as follows:

I was introduced to Old Grandma Gui on a work trip. When I first met her, she was staring at the gurgling water flowing from the water tap inside her house. She immediately started chattering: “There's no reason to worry anymore, thanks to Best Water Co. and what they have done to supply us with good water (*haoshui*).

46 The show is available online at http://hztv.zjw.cn/html/2012/hzzx_1029/405.html. Last access 10/2/2015.

This water's clean, plentiful, and the service fears no disruption, day and night. The bill is no more than 80 yuan a year. With all the younger Guis from the family working in Kunming, what we need is just one day of their work to pay an entire year of water fees, which makes them feel at ease while away from home”.

The beginning of this story already explains all there is to know about water pricing. Water provision is a problem for poorer households living in the Chinese countryside. There, water sources can be extinguished or insufficient. While rural communities would need to invest capital to build basic water infrastructures, this option is locally unviable, as these communities are just too poor to pool resources. It is here that Best Water Co. comes into the picture, plugging these communities into the supply network, which will deliver water for a fee. The revenue thus generated will be later used to treat water and maintain the institutional and material infrastructure needed to keep the service running. Best Water Co. does also make a profit out of its service, thus repaying their initial investment. When everything works as it should – that is when everyone is paying for water they consume – water bills should be cheap, allowing underprivileged families to secure their share of the water. Only, nothing ever works so smoothly.

It is easy to unveil Mr Pu's story for what it truly is, a “market environmental” fable. Yet, despite being ideological, Mr Pu's remains a very powerful story, because it sustains institutional practices that end up having serious consequences for people like Grandma Gui. In the fable, water is a commodity like many others. As such, its price should be set according to the relationship between supply and demand. When water is available to all, it should be relatively cheap. When cheap, it should be affordable also for poorer households. If everyone buys water, Best Water Co. will accrue the capital to maintain the supply clean and operative, thus producing a functional water market.

However, there are a few empirical problems with this narrative. First, water is no normal commodity, or as Karen Bakker puts it, it is an “uncooperative commodity” (2003: 28-36; 2007: 442). The problem of supply of water is that, it being a flow resource, it is difficult to exclude possible users from its use, especially in the countryside. That is, water is difficult to privatise. Asking water users to buy something that it is not fully owned by its seller is tricky, because users could get it by other means, as Chapter 5 will show.

Another problem is that water is heavy. Therefore, it is expensive to transport relative to its value. Water infrastructures are extremely expensive to maintain and it is generally accepted in the water management literature that water fees could never fully cover the costs involved in the supply of water (the so called “sunk costs”). If buyers can free-ride on the resource – not paying for its consumption – and if water is costly to transport, it is very difficult to see how water fees can ever be cheap, as in Mr Pu's story. In fact, in Crooked Cart, water fees were actually getting more expensive, not cheaper, suffering from a double increase in the price of water over a period of only 24 months.

Indeed when I asked Mr Pu and other water experts working for the Huize Water Bureau about how to set the water price correctly, their response would invariably sound the same: “Water is too cheap in China”. The rules of the water market for Huize County divided water provisions into four different kinds: water for cash crops (*jingji zuowu*); water for subsistence crops (*liangshi zuowu*); electricity production (*fadian*) and domestic use (*yinshui*). The price for these different uses was decided locally, with the latter being the most expensive⁴⁷. A price cap, however, was set politically from above, by the Yunnan government. This cap kept moving upwards during my fieldwork.

Drinking water was initially set at around 1.5 RMB/m³. It rose first to 2.5 and then to 3 RMB/m³ by August 2012. In November 2013, drinking water was sold to rural households at 4 RMB/m³. While this price might not seem high to the reader, one should keep in mind that domestic water in Crooked Cart would also be used for watering private plots and for cattle. The final figure tells it all. A family of four, living on a 2000 RMB/year salary⁴⁸, would spend more than 200 RMB a year for water, making of water a very precious commodity⁴⁹. Not exactly the amount earned in “a day of work”, as in Mr Pu's fable. And

47 In 2012 prices were set at: cash crop 0.06 RMB/m³; subsistence crop 0.04/m³; domestic use 1.5/m³. I was not able to acquire reliable figures about the price of water for electricity production, mainly because my informants considered this to be an “industrial secret” (*gongye mimi*). In Crooked Cart domestic use was further partitioned into business use (2/m³) and construction use (2.5/ m³).

48 This figure is derived by comparing various information relative to household income collected during fieldwork. The official figure of the Township Government (*Renmin Zhengfu*) is 1318 RMB/year/person. To get to the household's income from this figure – more interesting if we are to understand the impact of water price on household income – the government statisticians usually multiply it by two (i.e. 2636 RMB/year/household). This figure, however, does not account for the remittances sent by migrant members of the household. Bearing in mind that household income is usually under-declared, the official figure is most likely higher for the worst-off and lower for the better-off. A thirty-household survey carried out by me and by two assistants in the locale substantiates this claim. In my data set the mean for income for the worst-off households (eighteen respondents) is 2142.85 RMB; while for the better-off (six) is 10000 RMB. The remaining six households lie somewhere in between with a mean of 4166.66 RMB/year/household.

49 This sum is derived by structured conversations with farmers about water bills and from a survey of the

the market prospects looked even bleaker. When I talked with experts from Huize Water Bureau about water price, Beijing had in fact just promulgated a new document suggesting that the correct price for domestic water use should be set around 20 RMB/m³. Only with such a rise would both capital recovery and environmental damages finally be included in the water price. “No one could ever pay that sum here,” was my informant’s very laconic comment.

Performing Scarcity

Now, this is when Mr Pu's fable gets seriously in the way. In Pu's “ideal scenario”, prices will go down and water quality up with good management. While this might be true in the long run, Pu's story substantially contributes to the idea that commodified water will best serve the most endangered users. It does that by shielding from view a very important point about the creation of a water market.⁵⁰ In fact, when people’s desire for water is made visible and quantifiable by accounting, that is by associating a price to a demand, it is not just users' consumption behaviours that change according to the users’ – now calculable – water needs, but also those of the institutions which supply water. If water is priced, a supplier can logically decide to maximise revenues by seeking the satisfaction of some particular users; those willing to pay more per unit of water or those willing to simply buy more water. Water pricing works both ways, inflecting demand *and* supply.

For example, water use in Huize City is more profitable than water use in the countryside. This is because urban water is priced 0.5 RMB/m³ more than rural use, but also because city dwellers are better off, thereby less concerned to save money on water. Urban users

WEO's water fees registry. The mean for twelve months (March 2011-March 2012) of drinking water bills for the 89 households surveyed is 104.75 RMB. This sum is calculated on a 1.5 RMB/m³ payment rate. Note that, according to the United Nations Development Program (UNDP) guidelines, household annual water expenditure should not exceed 3% of its income (Ballesteros 2014: 30). My data suggests that Crooked Cart's poorest households are paying around 10% of their annual income on tap water.

50 Huize water market is a monopolistic market, that is a market controlled by one single supplier, Best Water Co. Because of that, the reader could be led to think that the rising price of water is merely a by-product of this monopoly, and that within a truly competitive market, Mr Pu's fable could actually become reality. Therefore, here I should clarify, following Karen Bakker, that generally speaking water markets worldwide show an inherent tendency toward monopoly. Water, like electricity, is transported via an infrastructural network usually built and owned by the State. To privatize a market where commodities are sold via a state-owned asset, one would require the construction of an alternative, privately-owned distribution network to engender meaningful competition among competitive suppliers. However, this rarely happens because of two factors. First, recovering the cost of building the alternative infrastructure is, for the private sector, impossible, or too risky. Second, given that running water provisions in a monopolistic market is more profitable than running it under competition: private companies face no incentives to actually invest in the creation of such competitive market (see Bakker 2003: 33).

also consume more water through household utilities, such as dishwashers, showers and washing machines (Robinson 1985: 43; Wu 2008: 226). Moreover, urban waterworks are usually of better quality, with fewer leakages and higher efficiency. For a water supplier, urban users are simply more profitable than rural ones. Because of that, local institutions such as Best Water Co. tend to invest more steadily in the city, under-investing in rural water provisions (see Chapter 6). In Crooked Cart, some villages are simply not connected to the water network because it would be unprofitable to do so. Here water scarcity ensues from market logic. Mr Pu eloquently explained to me the self-serving logic underpinning the system during one interview:

Under the ‘business model’ (*qiye moshi*) we have introduced last year, it is no longer the central state that subsidises local provision. It is we who need to recover most of the cost of running the system, (*chengben huishou*) [...] One big problem is the price of water. Now it is around 3 RMB/m³ but it still is too low. The revenue collected according to this price (*shou shuifei shouru*) is not enough to make the system sustainable. What I'm getting annoyed by is the very logic underpinning the system, right? We distinguish between the city and the countryside, OK? In the city, you pay more, and here [in Crooked Cart] users are registered as “rural” (*nonghu*). My question is: according to what principle should we make this distinction in the first place? Here you have families that are making more money than some poor migrants who have only recently got to the city. Some of these families are even owners of small industries that consume a lot of water, but they are still allowed to pay less. This is unfair (*bu gongping de*). Look at the water law. The law says that there is just one single entity (*suoyouren*) buying water, the user. It does not say anything about urban and rural users. We should move forward on this issue [...] China is now moving toward a “big belly” society (*da duzi de shehui*). You still have a big gap in income distribution, but we are moving towards a society largely composed by middle class families, the belly. A man with a small head, small feet and a huge belly, this is the China of the future. As ugly as this may sound, for water management (*yongshui fuwu*) this is the only type of society where sustainability can be accomplished. It is just very difficult to run water provisions for the poor.

What Mr Pu was indeed missing, is that his “fable” is not just representing how a water market works, but actually doing its share to help the Chinese society “swell its belly”. That is, the fable is *performative* (Callon 1998; Holm 2007): it creates (rather than describing) the conditions for a “big belly society.” In this regard, pricing water could be

seen as one policy which smooths out the transition from a rural to an urban society by rendering the countryside simply uninhabitable. In fact, by virtue of the logic promoted by water pricing, Crooked Cart's water infrastructure does not only end up being neglected, but is rendered unable to work properly.

The Huize water network gives priority to energy generation and urban use, as opposed to rural use. It does that by delivering water in different time-slots (*dingshi gongshui*). The morning is for the city and hydroelectric plants, the afternoon for users in the countryside, and the evening for the industrial sector. This time-constrained delivery squeezes rural demand through a narrow time window. Because the household water network in Crooked Cart is old and its maintenance systematically underfunded – investment going in favour of urban water infrastructures – concomitant water demand can create disruption to the service, as the water pressure is not enough to accommodate the demand coming from so many household taps simultaneously. Again, time-constrained allocation, in conjunction with a biased water market, produces water scarcity for some, making rural water provisions an insecure supply.

Conclusions

I wish to conclude this chapter with an ancient tale, well known among readers of Chinese philosophy as well as among many of Huize's water workers, Mr Pu included. During the Warring States period (481-221 BC), China was fragmented in several different states constantly waging war against one another. The bellicosity was so much ingrained, that even channelled water would be used as a weapon, with hydro-engineers being recruited by warlords to trigger man-made floods over vast swaths of the enemy's territory. Thinkers living during those turbulent times were confronted with a fundamental question: why would fellow humans fight against each other? As this question allows for many possible answers, Warring States philosophers would soon enough find common ground for debate. That ground was human nature. Is there something inherent in human nature that makes war possible? Confucians argued that humans were good-natured, and that war was the outcome of the perverse character of the Warring State society.

In one of the philosophical debates contained in *Mengzi* – a collection of conversations between Mencius, whom we encountered in the previous chapter, and some of his peers –

we make the acquaintance of Gaozi. Unlike Mencius, the philosopher Gaozi maintained that humans were “neither good nor bad” (*xing wushan wu bushan ye*), and that the quality of their behaviour should be determined according to the outcome of their actions. Mencius obviously opposed this position, contesting that humans have a predisposition towards goodness.

Here is where Gaozi and Mencius' discussion attracts my interest, not for what it reveals about human nature, but rather for the implications Gaozi's argument has for contemporary Chinese water politics. In staging their altercation, both philosophers make reference to water flow, and to how this could be used as an explanation in support of their alternative positions. In a particular passage, Gaozi states that “Man's nature is like water whirling round in a corner. Open a passage for it to the east and it will flow to the east; open a passage for it to the west and it will flow to the west. Man's nature is indifferent to good and evil, just as the water is indifferent to the east and west”.

Let me pause here and ask you to consider the political implications of Gaozi's position. Gaozi's notion is one that stresses human ingenuity. Men can make themselves anew, because their nature is protean and their inventiveness allows them to intervene in nature (theirs included) so that they end up inhabiting a world created to their liking. This world is infinitely pliable, and humans' need for water fulfilled just by making water flow in the right direction. As such, Gaozi's position enshrines the supply-side ideal of water management, where human thirst is quenched by finding new water sources or by diverting pre-existent channels.

Yet, as we have seen in the Introduction, this imaginary is running out of steam. China is now coming to terms with a water crisis which is seemingly putting constraints on future prospects of growth and on the very project of creating a “big belly” society. As a new approach is needed, China turns to the outside world asking for advice. “Market Environmentalism” seemed a sound alternative to the unsustainable, state-driven expansionary practices with which China was familiar. With it, problems of spatial and temporal unavailability of water would be resolved by self-regulated demand. Adopting a demand-side approach to water management, it was assumed, would give way to a more reliable service and to a better quality of water for humans and the environment. Only in rural China, it is exactly these managerial counter-practices that are now falling short of

meeting actual demand. Before, demand was engineered by an expansionary drive, now demand is neglected by rent-seeking water institutions.

Market Environmentalism is not only falling short of what it promised, but also reconfiguring water politics. By intervening in water demand, this new paradigm is shifting the burden of water politics from the state to the users. However, while users are asked to “manage” their water demand, they are not allowed to take any decisions as to how water should be used or priced, for that matter. Chinese citizens have acquired a right to “manage” their desire, but not water. By this logic, water politics is removed from the purview of local institutions as it is from water users' hands. The “environmental water market” – as implausible a fable as it is a productive one – is being performed by the Chinese water bureaucracy as a centrally designed instrument for modernising the nation, a nation where growth and sustainability, demand and supply will be finally reconciled thanks to the virtuous management of the Party. To achieve this, the basic concerns of the common, less privileged citizens need to be disregarded. It is upon the people living in remote, rural areas that the costs of sound management are being discharged. Scarcity is the heaviest cost.

Therefore, at the water table the game is fundamentally unfair, because the rules are designed to advantage some players against others. As politics – or a public discussion over the rules of the game – is *de facto ruled out* of the game in favour of keeping the water flowing to the highest profit, players taking part are left with nothing else to play with but their own, intimate feeling of fairness. In Crooked Cart, water management stops being part of politics and administration to become part of individual commitment and ethical reasoning. The rigged rules that I have described in this chapter are not publicly contested by water officials, but approached and accommodated on individual, private terms. Where so little space is left for collaborative, human engagement with the project of making water available to people, water politics become mere water ethics. It is this sort of ethics that the next chapter shall discuss.

Chapter 3

On the Water Margin: the Ethics of Local Water Service Provisions

The staff of Crooked Cart's Water Service Building (WSB) appeared, at first glance, as a motley crew of characters whose irreducible plurality of human conditions and aspirations one could only ascribe to chance or fate. There were people like Mr Yong – at 29 the youngest “head” ranking cadre in any of Huize's state departments – who, thanks to his own talent and ambitions, had successfully wriggled out of poverty and escaped the life of strenuous toil his parents had endured in a mountain village near Crooked Cart. Under Mr Yong's supervision were Peng Guoqiang and Fu Lin, two retired military officers. They were enjoying a sort of “golden retirement” at the Water Bureau, bearing no responsibilities while still earning a top-end salary. They had served all their adult life in the now-defunct Huize Disaster Relief Corps (*jiuzai bingtuan*), living through hard times of dam-building and unpredictable floods, de facto laying the foundations of the institution that later become the very organisation I decided to study.

The WSB crew also enrolled water experts like Jiang Kai. A hydro-engineer by training, Jiang Kai worked constantly long hours doing AutoCAD on his laptops. He would spend his working day jumping from one infrastructural project to the next, being summoned to the Land Development Office at dawn, called to attend an urgent matter by the Public Affairs at dusk. Matching the strict standards of science with the blurred lines of politics was his daily bread. Fee-collectors and plumbers made up the rest of the crew. For a large portion of my fieldwork, I worked long hours in their company, filling in the gaps of some sloppily kept account book or watching the uneventful unclogging of water-pipes in some unfinished basement. Born and bred in the cluster of villages surrounding Crooked Cart, these workers did not expect to leave their *danwei* any time soon, and they were very pugnacious when it came to maintaining the good reputation of their institution.

The variety of interests and perspectives hosted by the WSB came together at the building's canteen. This was on the roof-top and represented the very heart of the *danwei*. The canteen was the place for talking shop, family or technicalities. It was often invaded by delegations of extra-*danwei* party cadres, keen on booze and flattery, or more rarely by engineers with a penchant for hydrodynamics. Meals at the canteen could be spent in a broody silence, or among joking and cheering tablemates anxiously waiting to prolong the

evening at the nearby karaoke bar. Being almost forced to attend all the various banquets my research participants hosted during fieldwork, I slowly developed a personal interpretation of these occurrences. I envisioned the attendees as the protagonists of the famous Chinese medieval novel written by Shi Naian, called *The Water Margin* (*Shuihu Zhuan*). The novel, extremely popular in China and with a strong echo throughout the Far East, tells the story of a group of state officials who, fed up with the state of corruption in the nation, decide to turn outlaws, banding together to deliver justice to the needy, fighting back against state oppression and corruption. They achieve this by means of trickery, defiance, violence and cunning. When a plot succeeds, the outlaws celebrate, like most of the water officials in this chapter, by binging on food and drink. Incidentally, the title of this thesis is a homage to that very persistent impression.

Why was this literary impression so persistent?⁵¹ The reason lies in the moral conundrum both the *Water Margin* outlaws and my own informants had to face every time they dealt with the problem of how to accomplish their own collective mission (i.e. to make water available in Crooked Cart). Indeed, the bunch of picaresque braggarts described in the novel usually find themselves caught in some sort of ethical compromise: on the one hand taking the law into their own hands, on the other submitting to the prescriptions of a higher-level authority. While the outlaws are driven by their own private morality, they usually do not fail to recognise that a greater good is possible, one delivered by the Emperor, who embodies the rightful wielding of power and authority. Similarly, for the WSB staff, delivering water today, while making sure it will still be available tomorrow, is a task requiring a compromise. To fulfil its mission, this institution needs to balance the actual water needs of the Crooked Cart's community against the constraints imposed by the broader political context, which I discussed in the previous chapter.

This chapter is an ethnographic exploration of this theme. During fieldwork, many times I observed the WSB personnel confronting the issue of how to carry out their official duties, struggling to stick to the water management book, while often working with discretion to make ends meet. Here, one might ask why the “book” would not give guidance enough for seemingly straightforward occupations such as those undertaken by my informants. What is so ethically problematic about collecting water-fees, aligning an irrigation channel,

51 Another reason is that the soundtrack of a famous 2011 TV drama adaptation of *The Water Margin* story was very often played by water officials while driving around Crooked Cart in their service cars.

delivering drinking water or running the water purification station?

As this chapter will show, each one of these tasks harbours its own particular ethical conundrum, one which involves a compromise between following the protocol and following one's conscience. Who has to pay for drinking water? Is it the poor rural households or the state? Who has to build a new canal and who should pay for it? How pure does water have to be, given the financial constraints the institution is under? How do we make our institution survive in such an unfavourable environment?

The Ethical Challenges of Water Allocators

In taking on the state agents' view of what is ethically compelling about distributing water, this chapter directly addresses the anthropologically vexed question of how the state is encountered in practice, and how its power is made visible (Abrams 1988; Gupta, Sharma 2005; Herzfeld 1992, 1997; Mitchell 2002). While the literature on the topic is massive, my entry point in this debate will be rather narrow. When studying the state, anthropologists have usually been interested in how its presence in society is imagined (Anderson 1983) or in the effect of its techniques of government (Foucault 1975; Scott 1998; Greenhalgh, Winckler 2005). This later approach usually leads to incredibly detailed and nuanced descriptions of how the state constrains and fashions its citizens' subjectivities (e.g. Anagnost 1997; Farquhar 2002). Others have used this approach to rethink the ways in which the boundary between state and society is negotiated in practice (Gupta 1995; Ferguson, Gupta 2002; Elyachar 2005; Howell 2007). Whatever the case, in order to do so, anthropologists need to give broad-stroke representations of what the state looks like in their own field sites, avoiding any “insider” discussions of what working for the state may feel like for the people who inhabit it. Along with a recent rapprochement with the state within the anthropology of China (Feuchtwang 2004; Brandstädter 2007; Pieke 2010; Steinmuller 2010, 2013; Pirie 2013) in this chapter I will assume the latter position.

Tackling the problem of how state agents construct local institutions from within – often balancing the incumbency of a far removed but authoritative central state with the demands coming from the local community – this chapter takes on board Jon Elster's analysis of local institutions and regimes of welfare and burdens allocation (1992). Elster starts from the consideration that “the life chances of the citizens in modern societies do

not depend exclusively on market choices or governmental decision. To an increasing extent they also depend on allocations made by relatively autonomous institutions. [...] One could write the fictional biography of a typical citizen, to depict his life as shaped by successive encounters with institutions that have the power to accord or deny him the scarce good that he seeks” (1992:2). Elster proceeds by suggesting a line of inquiry into the study of these alleged life-defining encounters. His approach would “consider the conception of justice held by actors who are in a position to influence the selection of specific procedures or criteria to allocate the scarce good” (1992:4).

Consistently with this chapter's findings, Elster describes local institutions providing public goods as enjoying some degrees of freedom in terms of how to fulfil their institutional role. Because the decision-making process internal to these institutions – while conditioned by state laws or objectives set above (e.g. by the central state) – is rarely disclosed, disputable or informed by open debate, Elster quite explicitly discusses its unfolding as a problem of ethics, as opposed to one of politics. Rather, my aim in this chapter is to link questions of ethics with questions of politics, so as to produce an original “insider” account of the Chinese State as well as furthering an anthropological approach to the State which could make the ethical agency of the people inhabiting it visible.

This chapter will point cautiously at how a focus on ethics – i.e. prospective thinking about the direct consequences of one's own actions on others – might “deepen our understanding” (Lambek 2010: 7; Stafford 2010: 188) of how the local state concretely operates. As Chapter 2 concluded, the realm of Chinese water politics, while far removed from the daily necessities of the labouring water workers of Crooked Cart, explicitly delimits the province of their agencies. Consequently, this chapter shows how many of my research participants understand life in the workplace less in political than in ethical terms, that is as questioning their own ethical sensibility. For local state agents such as those described here, the ethical might indeed appear a valid template to describe why a particular institutional action has been selected in lieu of another. It is this self-reflexive ethical attitude towards the state and its doings that will be the object of this chapter.

Let me now return briefly to Elster's work. By providing a description of the ethical problems faced by local allocators⁵² of limited goods, Elster finds three, slightly different

52 In this chapter I adopt Elster's use of the term “local allocators”, that is local state agents who enjoy

yet related, ethical challenges these state agents need to grapple with. First, local allocators, such as those working in the WSB, need to consider whether to practice forward- or backward-looking water management. Some villages are so far off it may be difficult to provide them with a reliable source of water. Should we relocate the local dwellers elsewhere, so that we could provide for their water needs? Or should we just keep bringing barrelled water to those villages, even if it would be more costly and, in the long run, inefficient?

Second, they need to subscribe to alternative types of utilitarian ethics, choosing to implement distributional practices which favour the whole nation or only those who belong to the community they work in. Third, they have to compromise between efficiency and equity. Water is becoming a scarce commodity in Crooked Cart. Should we exempt poor households from paying for water even though this could mean impinging on the resources we need to maintain the service on the long run? A fourth issue, not mentioned by Elster, is the following. Under the water politics presented in the last chapter, the local water bureaucracy is asked to rely on locally generated funds to provide its services. By virtue of the hardened constraints put on their institution's budget, however, the quality of services the WSB provides and their maintenance costs – salaries included – are pitted against one another. How do we make our institution survive without neglecting the rights of Chinese citizens to safe and clean water?

To show this four-layered ethical challenge, this chapter will present four different ethnographic vignettes. I will start by recounting the story of “giving water”, an institutional activity carried out by the Water Bureau. This will allow me to show the reader how people involved in water management struggle with issues of forward- and backward-looking policies. I will then move on to show what is required to bring clean drinking water to Crooked Cart and how its service could be kept alive. This section proves that the WEO does its best to avoid pitting its own interests against those of its customers, going to great pains to secure safe drinking water despite the lack of financial resources. Third, I will describe how water-fees are collected in my field site, showing the

considerable discretion in terms of how to make water available in the community they work in. Note however that throughout the thesis I use the verb "to allocate" to denote political choices in terms of water use made by higher-level authorities. Conversely, I use "to distribute" to denote the series of administrative and physical actions through which water is actually brought somewhere specific. Thus, terminological consistency would require me to call the local allocators of this chapter “local distributors”.

ethical challenges local allocators face when they are forced to prioritise efficiency over equity. Finally I will look at how irrigation channels are built by farmers in the community. When new infrastructures are needed, the water bureaucracy cannot help but seek the cooperation of farmers', who in turn lend themselves to the job only if they are paid lavishly.

Taken together, these vignettes will help me qualify the ethics of Crooked Cart's local allocators, revealing its “dual-purpose” nature. In fact, my aim in this chapter is to show that a) the Chinese state agents I describe have a genuine concern for “the other” — that is for the recipients of their water services — and b) that this other-regarding concern is inherently tangled up with a self-regarding concern for the survival of their own jobs and institutions. Therefore, the ethics cultivated by Crooked Cart's local allocators is at the same time other- and self-regarding.

Moreover, when Elster's analysis is coupled with the ethnographic material presented here, a re-assessment of recent anthropological discussions about the state, but also about ethics, becomes necessary. First, local state agencies might be actively informed by an other-regarding sensitivity. That is, the state may reproduce itself by a logic that differs from that of mere self-preservation. Second, as power is distributed differentially in society, so are ethical challenges. Some of these challenges are precisely about how to use one's influence and connections to benefit those who do not have such power. That is to say that not all ethical problems are about self-cultivation or determination, as most anthropologists seem to have argued recently. The pivotal moment in *The Water Margin* is when Song Jiang, the outlaws' leader, accepts Emperor Huizong's amnesty, thereupon accepting his guidance as to how best to serve the nation. While incapable of reaching the same degree of poignancy, the daily preoccupations of the people working in Crooked Cart's WSB do resonate with the question of how best to serve others.

How to Quench Thirst

As I said in the previous chapter, Crooked Cart's mountains and gorges are flecked with tiny hamlets. Crooked Cart's inhabitants refer to this feature of their environment as the community's “scatteredness” (*fensan de xiangcun*). Because of this scatteredness it is hard to arrange the water pipes to bring drinking water to all households in Crooked Cart. In

fact, only 23% of Crooked Cart's population are currently connected to the water network. This leaves a huge amount of people relying on alternative sources. Mountain communities tried to get their water by various means: one carried water up from distant rivers; others relied on private couriers. In this case, shortage-hit villagers would pay for both the water bottles brought by the couriers and their transportation.

The local state was also involved. Crooked Cart's WB had a shortage relief program called “giving water activity” (*songshui huodong*). This “activity” consisted in hauling bottled water from different sources to villages which did not have any stable sources of drinking water in their vicinity. Between March and April 2012, the number of the villagers within the WB's jurisdiction lacking a secure source of drinking water stood at 4903. Of these, 3332 lacked structural water access, and 1571 suffered from seasonal variation in drinking water availability⁵³. In these villages, water sources had slowly dried up due to several reasons: damming, deforestation, protracted dry seasons or lack of pressure in the supply network. Most of these people lived in families composed entirely by elders (*kongchao laoren*) or by elders who had to take care of their grandchildren (*liushou ertong*).

The WB's decision to run the “giving water activity”, was enthusiastically taken up by Mr Yong alone, and was not considered to be a compulsory element of the WB's institutional tasks. In fact, WBs are allowed great latitude in fulfilling their institutional mission. The WB could choose how best to deal with such situations, relocation of households being one option among many. In Crooked Cart, the “giving water” activity was the first choice when it came to counteracting water shortage. Only in 2012 Crooked Cart Township Government had sent 291 water-hauling trucks to affected communities, built 18 water pumps, drilled 16 deep-ground wells and donated almost one million kilos of grain. The Provincial government was the institution most involved in counteracting water shortage, having invested almost RMB 25 million in these activities.

One morning in March 2012 I took part in a “giving water activity”. Mr Yong, Jiang Kai and I were driving a Landrover up a mountain trail departing from A-wuo village, a cluster of a few mud houses, which was the birthplace of both my travel companions. Mr Yong had insisted that I accompany him on this trip which, he forecast, would be of great

53 Crooked Cart Township's Water Bureau, 2012, *2012 Drought Period Statistics on Drinking Water Shortage for Humans and Livestocks in Severely Affected Villages* [*X Zhen 2012 Nian Kanghan Qijian Ren-Chu Yinshui Queshui Qingkuan Tongjibiao (Tebie Kunnan Cun)*].

relevance to my research. “We were covered with mud up to the knees! Handing one cask of water after another! You need to see how exciting it can get!” Mr Yong vouched for the forthcoming “activity”. After more than two hours of skips and hops, we eventually arrived at a very isolated hamlet located on top of a fully terraced mountain. The scene spoke of dramatic water shortage: the soil torn apart by high-altitude sunshine, no vegetation in sight, a lone, skinny horse, so dehydrated you could count his every rib.

We left the car and walked past the end of a line of forty people. Most of those in the queue were middle-aged women and men. They were chatting impatiently, getting in and out of the line, jostling as they tried to reach the front. A man in a military suit – the local Party Secretary – was having a hard time keeping the queue in order and everyone in their proper position. The man was continuously referring back to a hand-written list he was holding. The wait was finally ended by the arrival of a fire van, followed by a series of heavy haulage trucks. The trucks were carrying hundreds of empty 25 l drinking water barrels, with a total capacity of 30000 l. Once the barrels were loaded off, however, the people had to endure an even longer wait, as the “activity” could not take place without the formal approval of the local authorities. As the fire fighters were filling the empty barrels with their pump, we patiently waited for a Police Officer and the representative of a construction company, both of whom had been invited by Mr Yong.

As in many other occasions during fieldwork, the situation was soaked in dark humour. There was drinking water, and yet it could not be handed over before a formal speech had been delivered to the thirsty audience. An elder woman in the queue suddenly lost her temper, giving voice to the crowd's scepticism towards the “activity”. The village had two water wells that were widely used until a few years back. Why did the government prefer giving water this way, instead of looking into how to make the wells usable again? The crowd giggled, but the provocation was left unanswered. Finally, Mr Yong, the police officer and the corporate representative gathered in a semi-circle in front of the queue, to give a brief speech. “We gather here today to bring you water. During this time of drought, under this present predicament (*xianzhuangmao*), I tell you what is to be done: we have to team up (*zuo dadui*) and to show the tenacity of the whole family (*fahui quanjia de renjin*)”. Behind them, the red flag of the Communist Youth League of China fluttered in the roaring wind. It was a perfect image, which the Huize TV camera operator, called in for the occasion, did not miss the opportunity to record.

Figure 5: The “giving water” activity



Firefighters and policemen then proceeded to deliver the water barrels, helping farmers carry a barrel on their shoulders or on a donkey. When I helped, I was filmed by the TV crew. At the end of the distribution, a woman was left with an almost empty water barrel. Crouching down, the woman burst into tears, accusing her thirty-something son of being incapable of filial care (*xiaodao*). “You want to kill me, this is what you’re doing! I can’t stand it any more! No light, no land, no water! Poverty is killing me! (*bunengzai zheyang pingqiong la!*)”. The crowd stood silent as if they had witnessed similar performances before. The few remaining policemen moved away. No one was taking pictures or filming any more. The local Party Secretary was the only one to approach the woman’s son, telling him that the distribution, as he must have known, followed the principle of “neediest first” (*xian zui pinkun, zai qita de yuance*), and that he was responsible for taking care of his mother. As no one contested the amount of water delivered, the crowd left mother and son shedding tears.

The “giving water activity” could be seen as the WB’s answer to Mr Pu’s problem of “running water provision for the poor”. The WB takes responsibility for meeting the needs of these marginalised communities in face of the costs it will incur, as water and transport are paid partly by the Bureau. To take responsibility here means acknowledging that these communities *deserve* to receive water no matter how large the burden on the collectivity of hauling water. In stressing the ethical dimension of this practice – the fact that someone is seen as *deserving* water – I want to suggest to the reader that the “giving water activity” is a first practical example of the ethics informing the way in which my host institution was run.

Yet, the choice of rewarding desert as opposed to thinking of it as a structural, “forward-looking” (Elster 1992: 210) solution to this very common distributional problem should not be seen as free from self-serving purposes. As seen in the vignette above, the state brought forward the “activity” with the not-so-hidden objective of boosting the legitimacy of the Party. There are a few clues as to why this should be the case. The local TV was recruited to broadcast the image of a caring government. Police officers attended the distribution in an ambivalent capacity: while they were accorded the role of water deliverer they were also there to discourage recrimination on the villagers’ part. Moreover, I mentioned the presence of a representative of a prominent construction company. This was due to the fact that, around that period, this state-owned company had been engaged in the requisitioning of agricultural land, as a major highway was under construction in the area (see Chapter 5). A few days before the “activity”, Mr Yong had invited the representative to the WSB to discuss the opportunity for involving the construction company in organising the delivery of drinking water, and paying for the water haulage trucks. This, Mr Yong suggested during a meeting, could have helped the company to “grasp” its face back (*zhangwo mianzi*) as land reallocation had embittered local farmers’ stance towards it. The resulting image of a caring government was not the by-product of ethically driven drought relief measures, but the rationale behind it.

Interestingly, the self-serving nature of the “activity” – which significantly qualifies the type of ethical engagement I am proposing in this chapter – did not pass unnoticed by the actors involved. The “neediest first” principle mentioned in the vignette prescribes that, in any single “activity”, water should be handed first to the households with the highest numbers of elders. This logic was fiercely opposed by various local leaders I met. In

structured interviews carried out with six VC chairmen representing villages that had been selected for the “giving water activity”, four of them critiqued the WB's distributive choices, condemning them as “empty” (*kongxu*) or “useless” (*bai*). Instead, they thought it important to consider the economic situation (*jingji mianmao*) of the receiving household. In particular, the number of cattle a household owned had to be an important parameter for deciding how much water that household should receive. The death of cattle due to the lack of drinking water was, in fact, dramatically affecting the ability of many households to sustain themselves economically, including their capacity to sustain those very elders the “activity” was there to help in the first place. In other words, the “activity” achieved little, as it was unable to uproot the problem of shortage once and for all. One interviewee explicitly mentioned that this “activity” was “just there to pay lip service (*kongtou zhipiao*) to resolving the water issue in a self-serving way (*zisizili de fangfa*)”.

An initial ethical dilemma confronted by the WB concerns the nature of the measures it has to take to best serve the Crooked Cart community. Mr Yong enthusiastically vouched for bringing water to the “neediest” because this is what “the Party is there for”, as he usually pointed out to me. The other side of this institutional activity, however, was unashamedly self-serving, with Mr Yong carefully staging a scene to boost his and his institution's prestige. There are various ways in which this “dual-purpose” ethics can be inflected. The next section will show that the WSB also gives shelter to individuals who, contrary to Mr Yong's way of doing things, are happy to work below the counter to protect the well-being of their fellow villagers.

How to Purify Water

As described in Chapter 2, Crooked Cart's WSB houses two different institutions: the Water Bureau and the Water Engineer Office. While in everyday practice, the staff of these two offices mingled a lot, provincial and national regulations on how to run local state offices properly required something rather different. The central government had in fact recently asked the WSB to implement a policy, which went under the name of “institutional rationalisation” (*xingzheng renwu-renyuan mingquehua*)⁵⁴. This is a

54 This was a high-profile nationwide campaign carried out throughout 2011 and 2012 (among the many see *Zhongguo Shuli Bao* [China Water Resources News], 20-3-2012, p.1, Interview with the Director-General of the Taihu Basin Authority Ye Jianchun; 4-5-2012, p.1-2. Minister of Water Resources Chen Lei's water sector reform speech; and 3-23-2012, p.1, Vice-Minister Minister of Water Resources Zhou Ying administrative law reform speech). Crooked Cart Township's Government Circulars, sent in conjunction

component of a broader reform of the Chinese water sector that commenced formally in 1985, with a significant cut in the Water Ministry's budget, and has the aim of making local institutions rely on locally generated funds for distributing both drinking and irrigation water and maintaining its dependant bureaucracy (Nickum 2010: 541). The Chinese State had in fact decided that investing heavily in state-run, local water provisions was no longer profitable, redirecting capital expenditure towards double-digit growing sectors (Bramall 2009: 331; Naughton 2007: 105-6; Nickum 2005; also Huang 2008: Ch5). As mentioned in Chapter 1, the projected downsizing of the Chinese water sector has been carried out in accordance with similar policies undertaken worldwide since the advent of “market environmentalism” (see also Bakker 2003: 19-27; Mollinga 2007, 2010: 513; Ingram, Whiteley, Perry 2008: 2).

“Institutional rationalisation” prescribes the administrative distinction and legal definition of various tasks (*renwu*) carried out by the water sector, the imposition of budget constraints over previously more loosely run state-funded water services and the drawing of a neater demarcation line between administrative and political functions. Thereby, the WB and WEO are distinguished in terms of budget and allocated tasks. This reform, I should point out to the reader, has important ethical implications for local state agents, as it forces them to turn a blind eye to the downsizing of welfare they were accustomed to provide to their fellow citizens. Generally speaking, the reform pits fiscal efficiency (i.e. provide the service you can pay for) against equity (i.e. provide the service to everyone), thus forcing those who run drinking water services, for instance, to cut insolvent customers off from the network or to save money on waste treatment, accepting the provision of a lower quality service⁵⁵.

with the Huize Water Bureau Office and processed at the Crooked Cart's WB also often mention the need for “rationalisation”. Two points were cited most often: a) the WB and the WEO should perform different tasks and bear different liabilities; and b) these institutions should behave according to national laws, avoiding any ad-hoc operations. Circular n. 2/2012 (Guanyu Renzhen Zuohao Xunqian Jiancha Gongzuo Tongzhi, p.1) opens with the slogan: "The principle should be the following: 'Whoever is in charge, that is whoever under-signs a document, should be considered the one bearing responsibility' (*shei zhuguan, shei qianzi, shei fuze de yuance*). In another one, (Circular n. 5, 2012, Guanyu Jinyibu Jiaqiang Kuqu he Yimin Anzhiqiu Jichu Sheshi Xiangmu Jianshe Guanli de Tongzhi, p. 2) it was specified that: "Local solutions without authorization in matter of reservoir construction are prohibited (*budei shanzi tiaozheng*). By November 2013, the formal distinction between the WB and the WEO was also made spatially, with the re-collocation of all WB staff and offices to a renovated wing of the *danwei* distinct from the one occupied by the WEO.

55 Note that while Crooked Cart has indeed been experiencing a lowering quality of water supplied to its inhabitants after the water sector reform, this is not valid for all countries where market environmentalism has held sway. Water quality in England and Wales for instance has dramatically increased after the supply was sold to private entities (Bakker 2001: 150).

State agencies now had to behave somewhat like private companies. If not able to make a profit, they at least had to show they were not running a deficit. This, it should be said, is a dangerous, rather pretentious move to make in a sector such as water where, until a few years ago, the Chinese state had the monopoly, water prices were (and still are) highly subsidised, and the rationale underpinning distributional choices considered water access a key driver for growth, thus to be constantly expanded regardless of costs. For this reason, when my fieldwork started, the WEO was pretty much left at the mercy of the market, a position in which it was not navigating comfortably. Simply put, the WEO had to relearn how to provide its services from scratch, or else perish.

From 2001, the year of the formal partition of the Crooked Cart Water Bureau into two entities, the WB and the WEO, the engineers, plumbers and fee-collectors employed by the latter started experiencing an increasing reduction in the provincial and central government investments into their office. By 2012, the WEO had to rely for 85% of its budget on revenues generated by its own activities. This had a serious impact on its staff salaries and career prospects. Xin Mengfu, the most vocal of the WEO staff, commented once during an interview on the topic: “It’s one thing to be in the party-business (*shiye*), as those in the WB are, and another to be part of a proper business (*qiye*). We are much less likely to manage good money and are more easily laid off. We have to study, to get a university degree and be examined every year. Yet, no one knows how much money we will be getting next year”.

To be fair to Mengfu, up to 2012, the threat of bankruptcy was real. From 2007 to 2009 the fiscal balance of the office showed its marginal utility falling steadily, until it was running a debt in 2009 of over 100% of its total budget⁵⁶. After that date, there is no official budget. During my stay, liquidity was running at an all-time low. There was no money for new water meters, nor for electronic registers. The motorbikes, used to reach far-off villages when fees were due, were running on low fuel or battery. Some days, it was even difficult to find a pen to write with. When higher-tier officials visited, I would often overhear their negative comments on the state of the WEO: “This looks very backward” (*tai luohou le*).

On top of that, the water purification station was a liability of the WEO, and the source of

⁵⁶ Data collected at Huize Water Bureau, *Revenues and Expenditures of the Crooked Cart WEO for the period 2007-2009* [*X Zilai Shichang 2007-2009 Nian Shou-Zhi Qingkuang*].

constant preoccupations for its Head, shy Mr Song who was so poor at networking. The Station was built in 2001 thanks to a generous grant from the World Bank, with the supervision of the Township government and the involvement of a Fujianese construction company. Since then, little maintenance had been carried out. This was a shoddy building, with unoccupied dusty rooms, where only a wooden bench and a decently working TV hinted at the fact that every fortnight Shao Zhi, my flatmate at the WSB dormitory, was stationed for seven days monitoring the purification apparatus. The water arrived at the station from the Great Leap Forward Reservoir, and carried the sediments of the open-air distribution canals as well as the fallouts of an undisclosed industrial plant. The purifier in use was outdated, and the technicians usually said that since it was plugged into the network, the station had never worked properly.

To purify the incoming water, enormous volumes of aluminium chloride (*jianshi yanghualü*), a common coagulant for wastewater treatment, had to be poured into the first of a series of purification cellars. Water could be drunk only after the unsuitable water had passed all the filters and reached the delivering tank. The technicians knew what they were talking about: even after the whole process, water still looked brownish in colour. In Crooked Cart, it was well known that the purification station was falling behind standards and, as I will describe in Chapter 5, most of its residents obtained their drinking water by other means. In fact, the WEO had scored badly in a series of periodical water quality tests (*shuiyang songjian*) administered by the Huize Water Bureau. The situation was so bad that it engendered tragi-comical effects. For instance, if thirsty while on duty, one had to drink water from imported water barrels. When I joked about it with Mengfu, he replied: “This imported water costs 5 *yuan* per 19 litre barrel - the one produced by the station 1.5 *yuan* per 1000 litres. This says everything about quality”. Indeed, the station was in urgent need of amelioration and yet no state investment was on schedule. It was unclear who would pay for the work.

A possibility for improvement came in a truly unexpected fashion. One day in August 2012, Mr Song called me to his office early in the morning to ask a favour. Someone important was coming to Crooked Cart. In his youth, this local celebrity used to live in an almost unreachable hamlet located in the mountains north of Crooked Cart; a village I will name Red Cap. Coming from a deeply impoverished background – his father had died prematurely of a lung related disease after years spent toiling in the local coal-mine – he

received his middle school education at the Red Cap public school. After graduating with good results, he subsequently moved to Kunming as a migrant worker. By the time of my fieldwork, fifteen years had passed, a period of time which this poor boy with neither assets nor luck, spent becoming one of Yunnan's most important producers of electrical batteries (*dianchi*).

Now a young man, he drove a Porsche, had married a young model, and dressed in a Gucci leather jacket and customised Nike shoes. He had become the manager of a power battery company, but in his spare time he was also hugely involved in fund-raising and in helping rural students get a proper education. As he later explained to me, a proper education to him mainly meant an English-based curriculum. This is where Mr Song brought me full circle: was I willing to accompany the young entrepreneur at the celebration for International Children's Day (*Guoji Ertong Jie*) to be held at Red Cap's primary school? Could I perhaps give a speech to the students, summarising the benefits of a British education and take a seat beside this important guest, giving him even more face than he had already secured?

For the argument of the present chapter, the details of that particular day are less important than what happened a few months after I decided to accept Mr Song's invitation. One day I drove to the purification station in a huge van with the WEO people, carrying a range of kitchenware, furniture, a pair of Silkie Chickens (*wuguji*; *tuji*) and a bag full of big-head mushrooms we had picked together the previous weekend. A special meal for a special guest was on schedule, and we spent the afternoon cleaning up the years of accumulated mess Shao Zhi had never had the guts to get rid of. A specially rich chicken stew was heated up on the stoves of the newly arranged kitchen, while we patiently waited for our guests to arrive. Surprisingly, at least to me, the Kunming entrepreneur finally showed up with his wife, his beautiful golden retriever, his bright, English-speaking son and his friends. He had brought wine from Kunming and we dined right there, contemplating the resting water contained in the station's rusty ponds.

Eventually, I realised Mr Song had orchestrated something I had not expected him to be capable of. Many times I had seen him being left at the margin of some important meeting. He was always too ready to serve and to second his superiors, a disposition of character considered inappropriate for a proper leader. Despite that, he had worked in silence for

months trying to convince the wealthy man to invest money in the station. This was a crucial – actually the most important – component of Crooked Cart's water provisions and its renovation was both urgent and necessary. Did the entrepreneur know that the two greatest consumers of drinking water in the area were two schools?⁵⁷ Would he contribute to his personal quest for good education by investing in the quality of water these children receive? That evening Mr Song won his guest's attention.

In November 2013, while on supplementary fieldwork, I paid another visit to the station. Now the banner of the Best Water Co. appeared on its external walls. Inside were new rooms, better purification pools, and a brand new chemicals mixer. “To work here now I have to wear a white coat!” Shao Zhi humorously pointed out on that occasion. The money for the renovation came from the Kunming businessman, but instead of pouring the sum directly into the WEO account, the man decided to donate to the state-owned company, under which the WEO now operated. The station now appears in a commercial leaflet promoting Best Water's operations in Huize County, a poster child for the potential of sound water management. When asked about the station's successful recovery, Mr Song, smoking from his water-pipe, replied frankly: “It is a way of preserving the government face. Had he given us the money directly, the Huize government would have looked like it did not care about drinking water for the poor. Now I won't get any merit (*gongde*) for this, but at least we have a functioning station. When the government is not there to help, you still need to do something, right? (*bushi zhengfu guan, shei ye yaoguan?*)”.

I have dwelt at length on the ingenious solutions envisioned by Mr Song because I believe it provides an immediate sense of the type of ethics on which this chapter focuses. Mr Song had undoubtedly saved the station, and surely his own career prospects, by an individual act of bureaucratic dedication. He did so, with little help or guidance from the higher tiers of the state. The dilemma faced by Mr Song is very common under “market environmentalism”. For the people at the WEO, this dilemma implies disavowing notions of equity and universal provisions in favour of efficiency and “fiscal prudence”. When this logic is applied to institutions running a common resource such as the WEO, it generates perverse incentives.

57 Data updated to 2013 reports that the three biggest water consuming *danwei* in the Crooked Cart area are the Crooked Cart Middle School with 7494 m³ per year; the Crooked Cart Third Middle School with 4958 m³ and the Crooked Cart Animal Hospital Station (*shouyinzhan*) with 3421 m³.

On the one hand, it could force the WEO to go after insolvent customers to pay for the renovation of key hydraulic structures. This move, however, would inevitably lead to more resistance and to a loss of trust in the WEO, thus generating more defections and eventually fewer funds available to keep the clean water flowing. The opposite scenario however could also put the WEO in a bad light, with the WEO overlooking issues of water safety while being more accommodating of villagers' malpractices such as the unlawful drilling of water wells and tax avoidance. Again, this could tragically lead to increased levels of waste, pollution and to the overconsumption of the common groundwater. Mr Song's ethical move is quite creative in this respect. By enrolling a powerful, private actor into the water-sharing network, he has de facto privatised the costs of management while socialising its benefits, escaping the equity vs efficiency cul-de-sac.

How to Collect Water Fees

Another important task carried out by the WEO was the collection of drinking water fees. This, as every tax-collector would confirm, is never an easy task. Confining myself to the Chinese context, it should be noted that almost half of the popular insurrections that took place in China in the last century happened because of discontent over taxes (Bianco 2005: 116, 2008: 280-5; Perry 2002; Bernstein, Lü 2003). Taxes are contentious for many reasons. Poverty is one, as we have seen in the previous chapter. Feelings of desert also count. Land and water are assets generally tapped by the state as a predictable source of revenues. At the same time, they are also common goods local villagers feel they have contributed to making available and profitable, mainly through individual or collective labour (see Chapter 5 and 6). Fortunately for Chinese farmers, agricultural land tax was abolished by the state in 2003 (Liu 2007: 98). However, water access remains largely a product of complex human coordination and its upkeep is always costly (Molle, Berkoff 2007: 1), making the cost of water services a perennial matter for debate.

In the preceding chapter, I described how the water pricing framework currently in use in Yunnan is the outcome of negotiation amongst the local, provincial and central governments. Here I want to focus instead on how water prices become entangled in the local politics of tax collection, showing how the WEO members are cornered into a position where collecting fees becomes a matter of compromise between the immediate interests of the WEO against those of its customers.

To start with the technicalities, the Crooked Cart WEO supervises 27 villages, each of which is composed of 15-20 sub-sections called *xiaozu*, for a total of 409 localities and a population of circa 96,000 people. The area covered by the Township is more or less 470 km² of mountainous terrain, within which the 22,000 people to whom the WEO supply drinking water reside. Daily, the WEO managed supply network carries 1100 m³ of water to the community. The WEO is thus supplying water to only one quarter of the Crooked Cart community, but for this quarter 50 litres of water per day – the minimum amount stipulated by the UN human rights to water – are allegedly guaranteed⁵⁸.

A little mathematics here could help clarify an important point relevant to what kind of task the WEO members were facing when collecting fees. Had the community used up the amount of water that was supplied to it every day for a whole year, the amount of revenue generated would rest in the order of a nine-figure number. The actual figure for the revenues captured solely by fees-collection did not rise above 150,000 RMB per year. What should be kept in mind is that, no matter how unrealistic the assumption made about WEO's revenue-generating capacity, the office had to run with the nine-figure target in mind. In sum, the office, again, was falling far behind what was expected from it.

Water fees are collected every seven or eight months. To cover four thousand users' households with a staff of five was already a daunting task, not to speak of the intrinsic challenge represented by getting farmers to pay their dues. Fees collection was a time-constrained activity, which sees the fees collectors visiting the payers at home. However, one could knock at farmers' doors only between 9 and 11 am. Earlier than this, you would find no one at home, as the farmers would be working in the fields; later, lunch was prepared and eaten. In the Huize area, famous throughout Yunnan for its people's fondness of alcohol, this represented a problem as it meant that the great majority of people were not to be disturbed between 12 and 3 pm, that is while taking their drunken nap. This limited the amount of households that could be visited each day. During the 15 months of my fieldwork, I accompanied the WEO staff on five fees collection rounds. We never got to

58 China Water Census [*Quangguo Shuli Pucha*]2011-12, Section on Water Supplying Public Enterprises. Here again one should be aware of the numbers. If the amount of water delivered is divided by the number of people connected to the supply networks the result is a flat fifty, which sounds dubious if not convenient. The water access right stipulated under the water supply contract every Crooked Cart's households should sign with the WEO (see Chapter 5) speaks of a more credible 66.6 l daily per household.

visit more than fifteen families per day. Anecdotally at least, one would say that the WEO was unable to reach the number of visits the government demanded from it.

When fees collectors actually managed to enter the premises of a user's domicile, things got even more complicated. Domestic water use in Crooked Cart is measured through water meters, which frequently malfunction or break. According to regulations, ensuring that utilities work properly is the household's responsibility. Therefore, many times villagers were asked to pay 50 *yuan* to replace their broken meter. When visiting poorer households, it was common to turn a blind eye to a broken meter, and fees were calculated instead according to the lower threshold given by the administrative regulations in place⁵⁹. Other times, collectors merely avoided reporting having visited a particular household, tactfully leaving a blank in the relevant module while giving the family relief from excessive state pressure. For villagers the problem was that fees collections – be it water, electricity or television – were all scheduled on the same days. It was a matter of luck then to find someone who had not yet paid for, say, electricity, thus having the liquidity to pay water bills.

Figure 6: Collecting Water Fees



⁵⁹ RMB 3 per month of service.

Yet, Crooked Cart's villagers also purposefully avoided tax collection, in typical Scottish fashion (Scott 1989: 39-42). One way they did so was by stopping using the WEO supplied domestic water at all. As we will see in Chapter 5, villagers relied on a second-tier drinking water distribution system made by a network of individually or collectively excavated water wells. Drinking water supplied by the WEO was seen as unsafe due to its colour. Moreover, for the reasons exposed in Chapter 2, the network experienced momentary disruptions. Why would anyone pay for such a service? For the WEO this was an incredibly damaging move. The water spilling from farmers' water wells in fact came from the very same reservoir that was supplying drinking water to Crooked Cart. It was water that the Huize Water Bureau had paid for, but for which no one returned a penny. To this primary loss, the WEO therefore added the loss stemming from unmet levels of water consumption.

Erratic management of household expenditures was another problem. Farmers, especially elders, were quick to bemoan the disgraceful state of the supply network, refusing on those grounds to pay their dues. Nonetheless, they were also quick to turn the tap on when water was available, thereby accumulating substantial overdue payments. If caught, they would usually declare they could not afford to pay. In Ostrom's parlance, these insolvent customers were free riding (1990: 6), but there was little the WEO could do to make them pay, nor did it want to. WEO staff were keen to stress that the expectations of the users were unrealistic. Villagers still behaved according to the logic of a fully subsidised water sector, thinking that water was a free good. "What they don't understand is that things are different now. To pay by stamps is one thing, to pay a bill another! (*choupiao shi choupiao, shouyinfei shi shouyinfei ga!*). It is easier to accept paying by stamps because people know that stamps could be spent only on water. But with money, things are different, they say: 'why should I waste my money on something like water!'", Shao Zhi once commented. In August 2012, drinking water bills in Huize County doubled, going up to RMB 3/m³. The WEO staff only partially informed Crooked Cart's users of this. "We will have to implement it as slowly as we can: we cannot alienate (*shuyuan*) the few payers we have now. The WEO needs the money," Liao Yun, WEO's only female worker, explained to me.

One final problem is related to the ambiguity characterizing the way in which water use

was charged. In Chapter 2, I explained how water consumption is charged differently according to its use: drinking, agricultural or industrial. Due to specific policies giving priority to agricultural production, rural drinking water was more costly, yet easier to access than water from irrigation channels. If a person took water from the household tap and then used it to water a private plot of land, who could do anything about it? This was precisely what many farmers were doing in November 2012 when “drought” was still biting and irrigation ditches were running dry. The WEO however, did not have the resources nor the willingness to punish such behaviour. Commenting on the issue, a tax collector told me once: “There's this guy who got 3000 *yuan* of water out of the tap, and then he said to me, 'It must be an error with the meter - how could I possibly have got out so much water?' I told him: 'Look, if you show me that you can drink that amount of water I'll promise I won't even make you pay’”. Like many others adopting such a technique, the farmer had not paid a single penny by the day I left Crooked Cart at the end of December 2013.

The WEO staff was walking a fine line to keep the expectations of water users in the area manageable, without losing support from the local community. One reason for doing so was manifestly self-serving. A WEO member's salary came directly from the revenues generated by the collection of water fees. This meant that, while the salary's upper limit was set politically from above, to get to that amount (ranging between RMB 1800-2500 per month) the WEO workers ought to make water users pay. Yet, realising that water providers and users share a common fate when it comes to keep the system running – the former saving their jobs, the latter protecting access to water – WEO's workers did not push harder on fees collection to preserve their salary. The principle of making users pay according to consumption – another token of market environmentalism – did not provide any immediate way out of the chronic underfunding of local water provisions. To solve the problem, the WEO had to come up with a local short cut.

One day, Mengfu had an idea. His wife had been seriously ill for the last few years. A few weeks after my arrival in Crooked Cart, she underwent major surgery. The post-surgery treatment dictated some caution, but by the following Chinese New Year she had completely recovered. When she eventually got home, the community of Bamboo Forest Mouth Village, where the couple resided, celebrated with a massive feast involving the slaughtering of more than twenty goats. Mengfu's wife was one of the very few female

party cadres in the area, and her surgical treatment was paid for locally, by the party. That was widely known in the community, but not by Huize County's People Government. This was Mengfu's idea: pretending that the medical bills had brought his family on the brink of bankruptcy, he wrote an official letter to the county's government, lamenting that his salary was too small to cover the bank debt he had contracted. He also mentioned that all his co-workers were facing similar situations and that if the government had not provided help, the water supply in the locality would have faced a serious threat of definitive interruption. He concluded by demanding a 200 *yuan* annual raise in their minimum wage. When he filed his internal complaint, Mengfu and his colleagues did not expect that the government would eventually accede to his request. Mengfu later commented: “With this money we could finally pay for a new computer and buy an extra motorbike, it will make things more efficient (*xiaolügao*) and the service more respondent (*yingfuze*)”.

The three vignettes I have presented demonstrate that Crooked Cart's water bureaucracy runs its service according to an ethical standard, which is simultaneously other- and self-regarding. But this proposition could come across as an oxymoron. Is concern for the other not intrinsically opposed to concern for one's own interest? My point is that this opposition is not always present. The tact with which the WEO deals with water fees shows that a genuine concern for others underpins its way of running the “business”. When a choice is given about who will pay the cost of the institutions, the WEO workers ingeniously turn to the wealth accumulated within the state, rather than to the empty pockets of local villagers. In Elster's parlance, their ethics is “patient-oriented” rather than outcome oriented (1992: 147). That is, their choices are oriented toward maximising the welfare of the recipients of their services, rather than that of the system *per se*.

Another point should be made about this type of ethics. The WEO protected its customers because it thought it would not last long if it did not do so. As James Scott has poignantly noted in his work on peasant resistance to state intrusion (1985: 295-6; also Bianco 2001: 266), the coupling of personal and principled motives is what drives the collective actions of the exploited. Here, I bring Scott's argument within the state. Even when looking at how the state works from within, one has to recognise that parochial and general interests often overlap (see also Graeber 2010: 205). To bring about the objectives the central state sets for local administrations (i.e. water conservancy) local allocators have to compromise between their communities' demands and their job requirements. Avoiding “alienating”

payers' support, and holding back from discharging entirely on villagers the burden of cost-recovery, are not the outcome of disinterested altruism, but rather that of running local institutions for the sake of their own reproduction. That is to say, caring about others is part of a concern for one's own interest. The final vignette will conclude the discussion, as it shows that such “dual-purpose” ethics could end up being detrimental to the broader concern of ecological sustainability and efficiency in water use.

How to Build a Channel

So far, the discussion has been mainly about drinking water. However, in Crooked Cart popular discontent stems also from how the local government manages the irrigation infrastructure and allocates water to agriculture. There were a few, visible aspects of the local government of water that were judged harmful to farmers' well-being and a sign of vicious bureaucratic conduct. Firstly, the ditches and irrigation channels were developed “without reason” (*wudaoli*). The extension of Crooked Cart's irrigated area measured around 11,500 *mu*. To water the fields, according to the WB's very conservative estimate, every year the township requires 3,864,700 m³ of water to sustain irrigated agriculture⁶⁰, an amount covered by the over 6 million m³ of water it received annually from the Great Leap Forward Reservoir⁶¹. Yet many canals were dry throughout the year.

The WB commissioned more water works than were needed and that could be supplied with water, causing all these structures to run dry most of the year. The over-development of local water infrastructure was caused by the particular set of perverse incentives faced by the WB. The central government evaluated the local WB performance based on the volume of infrastructure produced within every fiscal year (see Minzner 2009), regardless of their effective employment. Moreover, local officials like Mr Yong were usually induced to plan for an expansion of the irrigation network with the sole purpose of appeasing the often aloof requests of higher-level officials. As one of Huize's hydro engineers told me, many Chinese water officials still thought that achieving “grandeur” in water infrastructure was in the Chinese state's “greater” interest (*guojia de liyi*). The consequences of this

60 In Crooked Cart, the net duty of water (*jingyong shuiliang*, water measured at the point of delivery to the field) was 2,898,500 m³/mu/year. The greatest consumers of irrigation water were paddy fields with 517 m³/mu per year, consuming up to 1,783,650/m³ of water per year. Crooked Cart Township's Water Bureau, 2013, *Guaiqu Yongshuiliang ji Yongshui Guocheng* [*Water Consumption and Delivery of Crooked Cart Township's irrigated area*].

61 Data from the Huize Water Bureau's Statistics Office.

institutional behaviour were described in the area as “face projects” (*mianzi gongcheng*), state-sponsored infrastructural projects which have the aim of pleasing state agents and heightening their reputation without serving any broader cause (see Steinmüller 2011). For these reasons, many condemned the local government, WSB included, as a fraud (*pianzi*)⁶².

My point here is that, for the most part, the form of disillusionment present in Crooked Cart towards WB-funded water development projects was ultimately self-justifying. This was so, not because irrigation water did not experience the shortage the farmers claimed, nor because the infrastructure ran smoothly without disruption. It was self-justifying because most of the people involved actually gained something from the building of shoddy infrastructure.

In the previous chapter, I argued that a study of Huize's political economy of water solves one side of the water shortage equation. Water allocation is affected by politics, prioritizing some water uses over others. But the other side of the equation lies in the habits of local water institutions. In fact, the poor state of irrigation water in the community was as much a product of nation-scale political economic choices as it was of the rent-seeking approach assumed by villagers when involved in the construction of water infrastructures. One striking aspect of the infrastructural development of the area was that it was not conducted by “experts”, but implemented by “farmers' teams” (*nongmin tuandui*), to whom the projects were subcontracted. The consequence of this was that many infrastructures ran dry because of their poor quality (i.e. leaking), they were misused or they were just superfluous. Let me give an example.

During fieldwork, I assisted several times in the construction of canals for irrigation. On one occasion, I found myself helping the WB staff pull a measuring tape over the narrow ridge of a concrete irrigation canal, which twisted and turned across the mountainous landscape north of Crooked Cart. That day we were not alone in our measuring work.

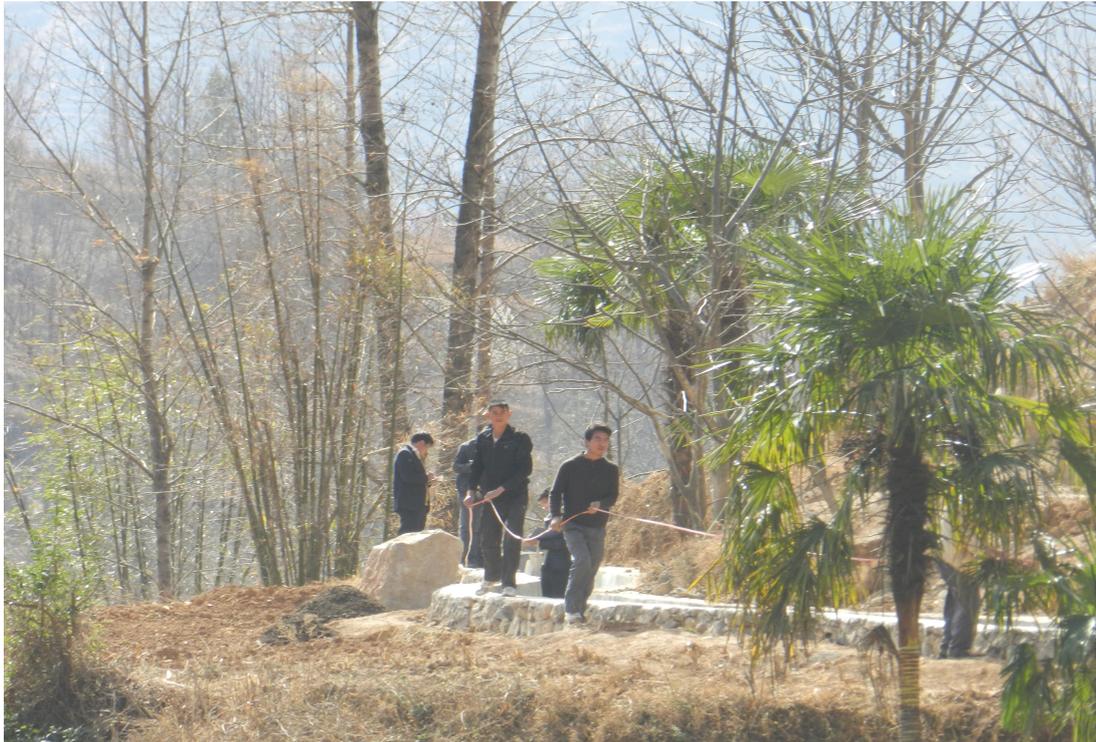
62 A joke about the psychological effects of over-demand was well known in the area. Crooked Cart farmers held the view that when they had fewer hydraulic structures, water-poor villages did not actually complain about having less water available. Instead, complaints followed the actual infrastructural overhauling. That is, the need for more water was engineered by the prospect of being able to acquire more. Because of that, farmers said that “when you need to take a slash, better to dig up a toilet (*nijile wanwa mosi*)”. The implication is that by introducing something people *should* rely on when in need, one is actually producing the conditions for conflicts over access (e.g. when the toilet is busy). When there is no toilet, people can solve their urgency by going somewhere discreet. Without water infrastructure, one could get water somewhere else.

Alongside us, the construction team leader (*duizhang*) – a local villager – and two of his assistants were measuring in parallel. They were supposed to have drawn yellow chalk marks every fifty metres along the canal. Our job was to check whether the length of the space between one mark and the next was consistent and how long the canal actually was. At some point Mr Yong became annoyed by my involvement and ordered me to stop.

The situation became awkward. The construction team was always ahead of us by one or two counts. Old Z – the WB member with the longest experience – commented with a whisper that the quality of the work was shoddy, and that we would be lucky if it lasted for more than three years. At the same time, the other team was acting suspiciously, trying to finish the job as fast as they could. At the end, when we finally got downhill, one of the WB technicians told Mr Yong that he was bewildered by how costly this project had turned out to be, with presumably RMB 400,000 to be paid to a crew of five for nothing else than rough work. Not only the quality of the canal was “rough”: both teams played rough by double measuring one mark, or shortening by a few centimetres each count, sometimes by even forgetting to take note of several feet of work.

Mr Yong finally confronted the leader of the “farmers' team”. He started by saying that he had counted twenty-two marks, while his opponent said the final count was eighty-four. Somewhere into the negotiation they settled around sixty-two or sixty-three. The farmers tried to raise the count higher, to no avail. They eventually moved to consider the size of the subsidy (*butie*) to which the construction team was entitled. Both parties agreed that 192 *yuan* per m³ would be fair compensation, but on specific sections of the canal the “farmers” had unnecessarily raised its sides, so to inflate the total volume of the canal and with it the amount of compensation due. On other occasions, they made the canal take unscheduled turns, increasing the total length of the project. On the other hand, Mr Yong did whatever was in his power to lower the amount of compensation given out. No consideration was given to the quality of the infrastructure. At the end, the crew settled on 3,172 m³ and RMB 609,000. The “farmers' team” had made a fortune.

Figure 7: Measuring a Channel



I should stress that this was standard procedure for canal and channel construction in Crooked Cart. Before getting involved in the project, villagers would usually try to understand whether the projected canal would actually carry water or just “face” (*shifou fang shui*). The WB on their part did not consider these off-the-book agreements to be damaging to the technical objectives of water management. While Jiang Kai had more than once raised the question of the “soundness” (*kexuexing*) of the hydro engineering promoted by the institutions, Mr Yong considered the amount of bargain going into state projects as nothing short of what was requested. The “matter-of-factness” (*budaiganqing de*), as he called it, of these negotiations did not raise any eyebrows at the WSB, apart from mine.

This last section should have clarified one final point relative to the “dual-purpose” ethics focus of this chapter. The Chinese local allocators seem to be quite comfortable with the idea that without obtaining the cooperation of villagers, and more broadly, water users, their institutional mission would fail. In Chapter 2, I discussed Karen Bakker's notion that water is an “uncooperative commodity”. Because of that, making water flow among different actors, thereby sustaining its different uses, is a task that requires meeting other

people's requests and expectations. It entails giving users voice and power in the matter of water politics, even when this could lead to detrimental results.

In Elster's terms, local allocators follow “act-utilitarianism” rather than “rule-utilitarianism” (1992: 222). Simply put, the former is a form of ethics that prescribes choice of what would bring the best possible outcome to the people involved in a particular situation. The latter is universalistic, telling us to follow the rule that would bring the best possible outcome over time to everyone. It is easy to understand why the WB staff goes for the former. Without villagers' cooperation, the WB could not fulfil its institutional duties. But in *Crooked Cart*, and contrary to much “grass-roots ecologism” (e.g. Shiva 2002: Ch. 6), local villagers do not get involved in such tasks so that good, environmentally friendly practices are concretely put to work, but only when economic gains are in sight. This has dramatic outcomes for the possibility of sound management and on environmental sustainability in the locale, as water and land are wasted on suboptimal projects. In the conclusions, I will discuss the implications of this chapter's findings for an anthropology of the state and for a reconsideration of the ethics informing the government of the commons.

Conclusions

In the *Water Margin* stories, Song Jiang and his followers are endlessly confronted with the problem of how to redress injustice. Throughout the book, the “Outlaws of the Marshes” – as the group starts to be called when the echoes of its deeds reach the Emperor – do their best to make up for official malfeasance affecting the common people. Similarly, as they take position on practical, yet deeply ethical dilemmas stemming from the friction between centrally-designed water policies and the needs of their local community, *Crooked Cart*'s local allocators face comparably compelling ethical challenges. In solving those challenges, I contend, they bring to the fore four anthropologically relevant aspects of enacting institutions that have considerable power over but also responsibilities towards local communities. First, it compels us to rethink the state as an institution that can *do* good. Second, it gives back to humans their ethical primacy over technology. Third, it re-politicises the ethics debate in anthropology by suggesting that ethics should be seen as being more about *doing* than *being*. Fourth, it points at the role that the “dual-purpose”

ethics presented here has for the politics of common resources.

First, this chapter's material contends the notion that the state merely produces “indifference” towards its subjects (Herzfeld 1992, but see his discussion there 156-7), or that its presence in society is essentially reproduced through techniques of surveillance, standardization, exclusion and punishment (Foucault 1975; Mitchell 1991, 2002: Ch. 8, 2005: 177-9; Scott 1998: 369-76; Elyachar 2005: Ch. 3). This chapter has rather argued that an other-regarding ethics plays an important role in how local state agencies operate. Local allocators, as with most people anthropologists usually work with, are aware of the ethical issues contained in any of their daily occupations, and give them due consideration. However, they differ from common villagers in terms of the type of ethical dilemmas they need to confront on the workplace. Selecting in which village a “giving water activity” has to be staged, exempting one family from tax collection, or doing one's best to ameliorate the quality of the service the institution provides, are ethical dilemmas with wide-ranging consequences not every person is usually confronted with in their daily life. The problem is that anthropology usually glosses over such dilemmas, meaning that they often disregard the state as a human organization imbued with an active interest in the welfare of its citizens and neglect the ethical challenges that go along with this very capacity (see Supiot 2013).

Secondly, both in the Introduction and in Chapter 2 I have pointed at how Chinese water politics is becoming a “technical” matter, with technology and market-mediated transactions being thought of as a viable solution to what were once assumed to be political issues (e.g. efficiency vs equity). Thus, anthropologists have rightly stressed the role that various technologies are now playing in the unravelling of the ethical challenges of modern governance. For example, in one recent work on the anthropology of ethics, Francesca Bray takes the Latourian position of claiming that in our modern societies: “we have delegated many ethical dilemmas [...] that we face to technological artefacts” (2013: 185). While this is certainly true if we assume a broad conception of what an artefact is – perhaps including a water meter informed by market environmental policies as Antina Von Schnitzler does in one of her papers (2008) – this position overlooks the fact that many other ethical dilemmas are still *delegated* to human beings who – working within the state and employing politically-charged technologies – have the capacity to concretely influence the allocation of specific goods, thus potentially impacting the well-being of many (for a

similar point see Hull 2008: 514). This is the contribution that Jon Elster's work gives to the study of the state in anthropology.

Part of the problem that anthropology has in delegating ethical challenges to humans stems from the fact that the discipline has always been interested in how subjectivity is historically and culturally constructed in relation to power. This interest, when translated into ethical terms, prioritises questions about whether a culturally, socially and historically situated subject – caught as it is in a web of micro-sociological forces – could ever achieve self-determination. For the present discussion, this means that many anthropologists consider the ethical to be about individual choices and the possibility of freedom. Even in recent debates about the locus of the ethical (Laidlaw 2002; Zigon 2007; Yan 2011), it has been suggested that moral choices are intrinsically about how one ought to conduct oneself, about whether it is possible to choose one's path in life (Laidlaw 2010). The problem with this line of inquiry is that, as Yan Yunxiang noted (2011), no matter how hard they have tried, anthropologists have so far been unable to firmly establish a space for the ethical separate from that of the social, meaning that they have been unable to determine whether self-determination can be ever achieved. By keeping the focus on people's aspiration to “be good”, they overlooked instances where people strive to “do good”.

Differently from this view, this chapter has been concerned with people inhabiting scenarios where the action taken could lead to concrete improvements of other people's welfare. Contrary to the ethical subject who ponders how to best conduct herself, here we have people posing the question of how best to serve others. The question faced by this chapter's local allocators is thus not “how should I conduct myself?” – about the possibility of agency and freedom – but “how is the collective interest best served, given that in the collective interest mine is also included?” The local allocators' ethics emerging from this chapter is thus one simultaneously characterised by a concern for others and a concern for oneself. One example of this type of ethics is a tax collector who avoids discharging on the poor the cost of supplying water, while at the same time seizing the funds needed to keep up the institution that manages the common water network. This is an ethical solution that, by serving others, does not deflect from self-interested conduct. To achieve this balance, as we have seen, local allocators are not afraid of finding a compromise between these two competing concerns.

This type of “dual” ethics remains largely under-theorised in anthropology (and in philosophy as well according to Elster 1992: 236-245), while arguably being a very common type of principled behaviour. To escape the philosophical trap of “being good”, my suggestion is that anthropology would benefit from a recalibration of its own “ethical compass” towards ethnographic contexts closer to those presented in this chapter, that is, towards “doing good”. To do that, a shift in how we think about ethics may first be required. In one of his essays about the anthropology of ethics, Michael Lambek quotes Hannah Arendt to explain the ethical dimension of the human condition. Arendt's claims that ethical practices are “all the activities that do not pursue an end and leave no work behind” (Lambek 2010:3 quoting Arendt 1998: 206), a definition that surely does not fit the very “patient-oriented” actions I have described in this chapter. To better make sense of the type of ethical issues faced by Crooked Cart's local allocators, I would rather start from Arendt's notion of the “common”.

For Arendt, the human condition is one where humans relate with each other through artefacts as well as through “affairs which go on among those who inhabit the man-made world together”. Sharing a common world means that a “world of things is between those who have it in common, as a *table* (my emphasis) is located between those who sit around it; the world, like every in-between, relates and separates men at the same time” (1998: 52). The reader may recall that in the previous chapter I used the “water mah-jong table” metaphor to refer to social arrangements that allow for water to be distributed in a complex, stratified society like present-day China. In this chapter, the metaphorical table is the network of infrastructures and institutions that make water available to society. Thus, the metaphorical table becomes, in the context of this chapter's discussion, a technological artefact that brings people together and provides a platform for the project of circulating water among various uses. However, how to keep the flowing of water accessible to the various people who “sit” at this table remains an ethical challenge faced by the people sitting at the table – and not exclusively delegated to technology – with local allocators having a great deal of discretion in this respect.

Reconsidering the role of ethics within the state – and posing the question of how ethics should be theorised in anthropology – this chapter asks anthropologists to take seriously what local allocators do in practical terms to meet the needs of common citizens. In fact, the “dual-purpose” ethics described here might have fundamental implications for political

organisations, as it gives to the concept of the state the pliability needed to make the agency of the people who animate it count. The ethnography in this chapter thus suggests two things to anthropologists. First, it asks anthropologists to look empirically at the impact that human actions (and not those of politically-tinted technologies alone) may have on how the state behaves and on whether limited goods are fairly distributed. Second, it sets the table for an analytical rapprochement with the notion of ethics. It suggests that the problem of subjective freedom might reveal itself to be a dead end for anthropologists. Instead, the question of “how is the collective interest best served, given that in the collective interest mine is also included?” examined in this chapter might have greater ethical weight for research participants, and harbour deeper questions relative to a person’s aim in life (e.g. Muehlebach 2012: 7-8; Fassin 2014: 433). In sum, it is calling for a re-politicisation of the ethics debate in anthropology.

Finally, understanding the exchanges between state agents and villagers presented in the chapter merely in terms of corruption and moral deficiency would end up missing a good deal of what it means to inhabit institutions governing common goods. Recognising that rent-seeking behaviours are theoretically detrimental to sound water management (Wade 1982; Tsai 2007: 15; Le Mons Walker 2010: 22), does not necessarily mean condemning such acts as morally bad or even as actions incapacitating the use of water for humans. Let us take the last vignette, where state investment in infrastructures are equally contended between officials and villagers with the sole intent of gaining more for themselves. No disapproval of the illicit practice came from either party. In the Chinese context, it has been noted that embezzlement of state funds is evaluated as corruption only if it favours the embezzler only, neglecting the potential benefits that bribes could generate throughout the wider network of local alliances (Smart, Hsu 2007).

In the present case, the partition of funds has the aim of sustaining cooperation among the different water users, as any initiative taken unilaterally by state agents would likely generate resistance: this would surely be the case should land be requisitioned to build the infrastructure (see Chapter 6). In a context such as that of Crooked Cart, with poor infrastructural quality, widespread water theft and an easily contested government, such a misuse of state funds becomes a baseline below which not only would inefficient water management be commonplace, but the whole possibility of multi-local distribution made impossible. The next chapter and the following will thus deal with the problem of finding

arrangements to make water available in a complex and stratified society such as China, and the type of cooperative relations needed to sustain the active project of making water available to humans through time.

Chapter 4

For the Common Good: Water Users' Associations, Collective Action and the problem of “success” for Non-State Water Provisions

This chapter and the following will deal with the consequences of the water politics described in the previous three chapters on the management of water at the village level. According to the “market environmentalist” doctrine, users should be given greater latitude in terms of water use, but also bear greater responsibility in the effort to achieve sustainable management. Sustainability has to be accomplished not only by setting the right price for water, but also through a reform of the administrative framework governing water. Water users, the doctrine suggests, need to be organised in associations, so that they can improve efficiency in water use.

Thus, this chapter will be concerned with the implementation of Water Users' Associations (WUA, *nongmin yongshuizhe xiehui*) in the Crooked Cart countryside. In principle, WUAs are legally constituted, farmer-run associations with an elected managerial board that supervises water management at the village level, encompassing both irrigation and domestic water use (Wang et al. 2006a). These associations entered China with the *World Bank Yangtze River Basin Water Resources Project* in the early 1990s (World Bank 2003, 2010) and are considered to be a vehicle for “empowerment” of common villagers. Associations of this kind are also thought to encourage common villagers to “participate” in the governance of water. Encouraging common villagers' participation and entrusting them with the right to gain control over their local water sources may be, according to the theory upon which WUAs are based (e.g. Merrey 1998; Baland, Platteau 1996: 373-79), the only way to pursue sustainable management in places where water is in short supply.

There is a vast anthropological literature related to the implementation of bottom-up associations for the management of common resources of which WUAs are one type (Cook, Kothari 2001; Brosius, Tsing, Zerner 2005; Mosse 2013: 229). As Part I of this chapter will show, anthropologists have been largely critical of developmental projects involving the “empowering” and the “participation” of common villagers. Anthropological critiques usually maintain that WUAs fail to actually “empower” anyone, as local water bureaucracies – threatened with losing control over their traditional jurisdiction – try to undermine their implementation. WUAs are also unable to encourage any participation

from the common villagers; either because villagers are suspicious — knowing that the associations are not independent but ultimately controlled by the government — or because villagers are not familiar or willing to engage with the type of democratic governance demanded by the WUA model itself.

The few studies mentioning operative WUAs also point out that when associations of this type are introduced as part of a national or international development project, their organisational structure does not take long to adapt to the local context, compromising the association's capacity to support sustainable water use. What is more, empirical research shows that WUAs are working against the clock. When project funding expires, it is common for WUAs to disband, leaving space for the older network of local institutions and practices regulating resource use to re-emerge.

In this chapter, I will take a different stance in this ongoing debate. While acknowledging that the top-down implementation of grassroots associations is necessarily influenced by the particular context where the implementation is happening – the classic anthropological position – I will be much more concerned with analysing the logic behind the WUA model. That is, this chapter will focus on the theoretical arguments and the normative principles that underpin the intellectual and political movement advocating for the implementation of WUAs in China. The theory upon which the WUA model is based is a strand of institutional economics pioneered by Elinor Ostrom. This body of work has been approached in various ways by anthropologists, but few failed to recognise its enormous value in terms of progressive environmental politics (e.g. Metha, Leach, Scoones 2001: 3; Wutich, Smith 2009).

Ostrom suggests that local communities worldwide have shown themselves able to organise and produce sustainable relations with natural resources, water included (1990). That is, they are capable of solving the collective action problem they face when dealing with limited resources.⁶³ This argument is one that anthropologists have not only contributed to, but also share a professional bias for, as it suggests that exploitative, hierarchical social structures are neither necessary nor conducive to sustainable ways of

63 This problem ensues when users harvesting a limited resource have a short-term incentive to deplete the resource base rather than to conserve it. One example is the overdrawn of groundwater via the unrestrained use of water wells. See for the general argument Olson 1964 and Hardin 1968. For its detailed interdisciplinary discussion McCay, Acheson 1987: 1-36; Wade 1988; Baland and Platteau 1996: Ch2; Agrawal 2002, 2008; Acheson 2011.

inhabiting the natural world. Yet, this idea is also very much appreciated by water experts supporting market environmentalism. Saying that people could happily live without a centralised authority externally enforcing binding rules, is an attractive position for those arguing that sustainable management is affordable without costly, time-consuming political processes, granted that the blend of market rules, fiscal incentives and property rights is correctly struck (see Tsing, Brosius, Zerner 2005: 2). Perhaps surprisingly, this is a position that water experts in China are now forcefully endorsing (see Wang et al. 2010), as it fits perfectly into the “managerialisation” of Chinese politics (see the Introduction).

This chapter aims at salvaging Ostrom's work from this kind of market environmental reading. It does so by pointing at where the WUA model – built internationally and with the participation of Chinese scholars – diverges from the most recent developments of Ostrom's theory. Advocates of WUAs in China assume an overly deterministic understanding of Ostrom's *design principles* – i.e. specific rules that tend to generate success in resource management. Ostrom's rules indicate that if local people are accorded with the power to control the resource and the possibility to discuss how they should collectively organise that power – what is known as “empowerment” and “participation” in the “WUA-supportive” rhetoric – a collective solution to overexploitation will be found. WUAs are, therefore, associations designed according to these principles and their implementation assumed to be the *solution* to the depletion of local water sources.

However, Ostrom is keen to show that “successful collective action is not the *only* possibility” (Poteete, Janssen, Ostrom 2010: 218, my emphasis). Once a WUA is established – a collective *acting* on water – one should look further to see whether the association is actually producing social relations that are conducive to sustainable management. For Ostrom, such social relations are those built around trust (245). This chapter will give ethnographic evidence to support this claim, showing that, in Crooked Cart “successful” WUAs require relations based on reliability and equity. What is relevant, however, is that successful WUAs are trusted by their members, not because they allow them to “participate” or give them more “power” in matters of water management, but rather because these associations are built around the context-specific figure of the “caring leader”. The positive unfolding of the relationship between the villagers and a “leader” is an important element in making sustainable management viable in the Yunnanese countryside. WUAs proponents are thus caught in an intellectual trap where they cannot

see WUAs succeeding, because their own model does not account for a type of successful collective action predicated on *rewarding human relations* and *caring leaders*.

To support this claim, I will base my discussion on extensive participant observation, a thirty-household questionnaire on WUA performance, and several in-depth interviews conducted with three different WUAs located in the Crooked Cart area. The chapter is arranged into two parts. **Part I** sets out some caveats for appreciating this chapter's contribution and delineates the theoretical and political debate underpinning the dissemination of WUAs as a solution to the world's water problem. In this section, I will tackle in greater detail the principles informing the deployment of WUAs in water-stressed contexts. The World Bank and the Chinese governments – the two entities most involved with experimental, participative solutions to the problem of lowering water efficiency – are very likely to assume an over-simplistic, yet strongly deterministic approach to WUAs. The introduction of WUAs, it is assumed, is *per se* an advancement towards sustainability.

Yet, the very theory upon which these organisations make their own predictions actually says something different. Producing the conditions for collective action does not mean producing a collective that continuously practices sustainable water management. The latter needs to be structured around specific *social relations* that, while certainly promoted by fair and equitable rules, cannot be produced by political fiat. In my field site, sound management practices are sustained by relations of trust and reliability and rest on individual commitment and leadership, that is, the ability to become an object of emulation for others. Remarkably, as **Part II** will document thanks to a detailed analysis of three different WUAs, sustainable practices, informed by valuable *social relations*, existed well before the introduction of Crooked Cart's WUAs. Finally, the conclusion will put under harder scrutiny the very argument advanced by this chapter. With the term “sustainability”, we very often conflate two different aspects of sound resource management. The first is the ability to conserve the resource *stock*, the second the ability to distribute the resource *base*. In other words, the former is about making water use efficient, avoiding waste. The latter is about fairness in distribution, avoiding skewed appropriation and dispossession. My ethnography shows that Crooked Cart WUAs are generally more “successful” with the latter component of sustainability than with the former. To assure a water-rich future for China's future generations, a more concrete and vocal environmental politics should first be constructed.

Part I

Language Disclaimer

I should warn the reader that this (and the following) chapter will make use of a specialised language to talk about issues of water management. The first special term is “cooperation”, which I use to indicate two empirical phenomena. First, cooperation happens when someone is helping others in solving individual or collective problems related to sharing water. Second, cooperation occurs when individuals group together to bring about solutions to a situation that negatively affects the group or arrangements that would better the group's welfare, even though it is not necessarily defined in material terms. In this latter sense, cooperation is equivalent to “collective action”. Defined in this way, both terms owe their insightfulness to Elinor Ostrom's work on the commons (1990, 1992; Ostrom, Gardner 1993; Poteete, Janssen, Ostrom 2010), which will play an important role in this chapter. This chapter will be about “collective action”, while the following chapter will deal with problems of “cooperation” in the first sense.

The second specialised term I will employ is that of “sustainability”. With “sustainability” I refer to a specific type of human relation to water resources that, in the end, achieves two things: a) maintaining the material and immaterial infrastructure (e.g. canals and rules on their use) needed to share water across households and fields; and b) keeping up consumption with water availability (thus averting overconsumption and shortages). One should think of this distinction as showing the problem of sustainability on two different, yet interrelated, analytical levels. Producing and maintaining the “water infrastructure” (i.e. definition a) is a first-order problem; balancing consumption with availability is a second-order problem (i.e. definition b).

The second-order problem describes the social challenge of adopting a flexible pattern of resource consumption that could be protracted to infinity. The first-order problem, instead, refers to what *surrounds* and *inflects* the sustainable consumption of a given resource. As regards irrigation and drinking water, for example, one would need a series of concerted human actions – from resource appropriation and storage, to the upkeep of the infrastructure and the production of knowledge about water and its transportation – without which collective consumption could not take place. Therefore, to consume water

sustainably in the second-order sense, one should make sure that the first-order problem – making possible collective consumption of water – is solved. There is no solution to the problem of over-exploitation without first having worked out how to keep “cooperation” over water possible. Because of that, I will refer to the solution to this first-order problem using the term “sustained collective action”⁶⁴ .

I make this distinction between “sustainability”, “collective action” and “sustained collective action” to underline that the objective set by water conservancy – the type of sustainability emerging from the solution to the second-order problem – is something that could not be produced by individuals alone. To restrain aggregated consumption, for example, a set of technologies, state agencies, incentives and rules should be designed to guide individual behaviour towards this particular objective. Moreover, this could be realised only if “water infrastructure” – both material and immaterial – is preserved through mutual supervision, division of labour and concerted action. This is to say that “sustained collective action” solves the first-order problem of “sustainability”, de facto producing water access for individuals, but at the same time fails at solving the second-order problem, that is avoiding overconsumption.

The fourth and final specialised term employed here is that of “successful collective action”, i.e. collective action that produces second-order sustainability. My fieldwork shows that “successful collective action” is not a direct consequence of the introduction of WUAs. My case studies of Sangou Township WUA and of Pitch-Black Plateau WUA will clarify this point. There, “successful collective action” ensues from the respect, trust and authority commanded by specific members of the two associations. This respect pre-dates the introduction of the WUAs and it is not derived from any set of fixed managerial principles, but instead unfolds from the relations these authoritative figures maintain with fellow villagers. Figure 8 resumes the collective action framework developed in this chapter.

64 One could actually argue that not only without (a) solving the problem of maintaining the "water infrastructure" operative, could (b) a solution to over-harvesting be attained, but that actually, not solving (a) means avoiding producing the conditions for (b). That is, without human exploitation of nature, there would be no problem of sustainability at all, as humankind is the first species on earth to have the intellectual capacity to consciously undermine the very conditions of its own reproduction. This is, for instance, the position assumed by “deep ecologism” (see Naess 1989: Ch1).

Figure 8

Water Delivery and CA problems	Uncooperative withdrawal	Sustained Collective Action	Successful Collective Action
Open access to water sources under limited use	X		
Sustain infrastructure to collective use		X	X
Produce environmental sustainability			X

The counter-example for this claim is the Bamboo Forests Mouth WUA, the last association presented in this chapter. This WUA is equipped with the clearest and most comprehensive set of rules designed for water conservancy. Nonetheless, it failed to achieve any significant contribution to sustainable water use precisely because its members did not trust its leader, thereby failing to engage in “sustained collective action”. In fact, this last WUA ended up being taken over by one of its appointed board members and emptied of its original mission, later to be transformed into a vehicle for this man's own power politics. Before showing this however, I first need to spend some time on the empirical studies of WUAs, locating this chapter within this important body of work.

WUAs and the Problem of Collective Action in Water Management

The in-depth study of WUAs has recently been on the rise (Bruns, Meinzen-Dick 2000; Roth, Boelens, Zwarteveen 2005). This is because the relationship between human societies and water is now understood to have slipped out of control. New social arrangements have to be designed to bring sustainable patterns of consumption back in place (Netting 1982; Brombley 1983; McCay, Acheson 1987; Bardhan, Ray 2008; Poteete, Janssen, Ostrom 2010). One way to address the problem of the global water shortage is to look for places where the scant water availability has been coped with safely through specific institutional solutions. Therefore, scholars have been concerned with studying more or less formal “water institutions” which successfully manage irrigation and drinking water, usually in small locales.

The declared aim of this first wave of scholarship has been to predict the emergence of

these institutions or to describe their functioning (Hunt, Hunt 1976; Hunt 1989, 2007; Wade 1988; Mosse 1997, 1999; Ostrom 1990, 1992). This has the aim of assessing why and in what circumstances water institutions fall short of delivering what they are designed for, namely what I here term “sustained collective action” (e.g. Hunt 2007: 202-4). A key recommendation stemming from this literature is that the people closer to the water resource are those who should be entrusted with the rights to manage the resource itself. A far-away, centralised bureaucracy – lacking sufficient information and trust – usually fails to achieve first-order sustainability in small communities, leading instead to defective and unsustainable institutional practices.

As they lend themselves to the interpretation that centralised management is inadequate (i.e. market environmentalism), the findings of this literature prompted water experts to reconsider the role of the state in the management of water. It was now time to experiment with alternatives. International organisations familiar with this debate started arguing for these “water institutions” encountered in the literature to be replicated in places where water use was considered deficient (World Bank 2003; FAO 2007). Therefore, many development projects have been set up, most prominently in regions of the global south, to pilot the institutionalisation of grassroots water management groups inspired by the literature on “successful collective action” (e.g. Meinzen-Dick 2007; Groenfeldt 1997; APO 1998; Knox, Meinzen-Dick 2001; Boelens, Zwarteveen 2005; van Koppen, Giordano, Butterworth 2008; Wutich 2009).

Within these projects, the design of WUAs has been based on some key assumptions, derived from Elinor Ostrom's works on the commons. In an early work, Ostrom identified seven key principles characterising institutions “successfully” governing the commons across cultures (1990). Because the cases compared in her book – all coming from decentralised societies – had some important institutional features in common, Ostrom claimed that these principles provided the skeleton for the *successful* government of common resources (i.e. solving both first- and second-order problems)⁶⁵.

The theory behind the creation of WUAs draws on Ostrom's considerations. The scaffolding of WUAs is thus composed of a number of “principles” deemed to be essential

65 See the discussion in Agrawal 2003; Ostrom 2005 and Poteete, Janssen, Ostrom 2010 for successive refinements of these design principles.

to their success. Among others, the most relevant for our present discussion are: 1) WUAs must be owned by farmers and be democratically organised, with a stress on members' active participation in decision making; 2) farmers should collect fees autonomously and be fiscally independent; 3) they should craft their own rules and enforce them; and 4) they should resolve disputes among their users. If these requirements are met, WUAs are predicated to rationalise distribution, to ensure equity and to allow for the institutions' perpetuation (World Bank 2010: 6-7). As with many other countries, China has been keen to follow to the letter the above-mentioned guidelines proposed by the World Bank for the introduction of WUAs in their own country (Wang et al. 2010; Su 2010; Guo et al. 2010, Xu 2010; Aarnoudse et al. 2012a; Zhang et al. 2013).

It should be immediately noted that even if inspired by Ostrom, these four points do not exhaust nor completely coincide with the principles discovered by Ostrom (see Figure 9). Similarly, the WUAs operating in the countryside of many developing countries are run in ways that do not respect the model advanced by national governments and international organisations. In fact, the empirical literature on WUAs has consistently shown how the assumptions expressed “on paper” by project planners have hardly been replicated in reality (Hunt 1989; Bruns 1992; Mosse 1997, 2003: Ch. 9, 2008; Mollinga et al. 2005; Ou et al 2004; Huang et al. 2009: 220-1). In relation to China, the WUA literature also suggests that “actually existing” WUAs do not only differ from the model, but are also more likely to have an impact on the performance of local irrigated agriculture, as opposed to diminishing the amount of water used (e.g. Ou et al. 2004; Mollinga et al. 2005; Wang et al. 2010; Huang et al. 2010)⁶⁶. Regarding the latter claim, there are two analyses that should concern us.

⁶⁶ There is at least one study demonstrating that Chinese WUAs have a significant impact on water efficiency (e.g. crop yields per drop of water), thus implying the possibility for progressive reduction of water use (but not for absolute reduction), Wang et al 2005a.

Figure 9

Chinese WUA principles (based on World Bank 2010 and Wang et al. 2010)	Ostrom's design principles (based on Poteete, Janssen, Ostrom 2010: 99-101)
Legal status and participation	Legal status, participation and <i>rights recognition</i>
Fees collection and full cost recovery (management and delivery)	Fees collection (monitoring) has to be <i>accountable</i> to users. There is no explicit reference to full cost recovery.
Rules crafting and enforcement	Rules crafting and enforcement
Disputes resolution	Disputes resolution

The first critique comes from those who sympathise with the goal of sustainability but oppose the way in which this goal is pursued. These scholars claim that it is difficult to understand whether WUAs do what they are designed for. First, there is an intrinsic problem of measurability. Assessing WUA performance, within or outside China, has already proved to be controversial. Proxy measures are often needed to measure water efficiency, causing uncertainty as to the magnitude or quality of the effects measured (Araral 2009: 688). Second, what has to be considered the immediate mission WUAs – against what benchmark WUA performance has to be put – is also subject to debate (Stern et al. 2002: 457). For some, it is the fiscal gain that the institutionalisation of WUAs can generate (Shivakoti et al 2005: 28). For others, water conservancy and productivity have priority (Wang et al. 2007a, 2007b). In China, measuring the effects that WUAs have on water use show that these are most likely trade-offs: when they produce positive effects on water productivity, they also impact on water fees, de facto eroding the resources of poorer households (Huang et al. 2010: 367; Liu et al. 2008: 478). Therefore, in this intellectual camp, the notion of “successful” implementation remains hotly debated.

Another kind of critique comes from those who do not agree with the hegemonic narrative of sustainability (e.g. Li 2005: 447; 1996). Actually, these scholars claim, sustainable relationships with water were ubiquitous prior to the advent of global capitalism. One has only to look at places spared from the global flow of capital as Ostrom, Geertz (1980) or Lansing (2006) did, to find “customary” solutions to the problem of governing the commons. Market Environmentalism-inspired solutions to a problem that directly stems from market relations could never solve the problem for good, but just temporarily “fix” it

(Bakker 2003: 35; also Waller 1994). By and large, humanities scholars – anthropologists included – have joined this critical camp, criticising the kind of simplifications set forth by international agencies supporting the introduction of WUAs (see Mosse 1997, 1999, 2003; Nickum 2003; Bakker 2008; Mansfield 2008). In this critique, there is one key idea. Market environmentalism, by treating water institutions as a mere mechanism for water efficiency, has largely misjudged the greater significance that “customary” institutions have for their members (Mosse 1997; Lam 2006; Trawick 2003a, 2003b; Wutich 2011).

Local communities are indeed able to solve either first- or second-order problems with water management, only the developmental policies advanced by market environmentalists are making their job more strenuous. By “rendering society technical” as Tania Li has recently put it (2011), that is by repackaging historically-rooted mutualistic arrangements to sustain water provisions into an econometrics incentive structure hinging on and exacerbating the significance of members' individual calculus and interests, WUAs are de facto undermining local people's efforts to solve their collective action problems. Rather, institutions like WUAs appear, to those positioned on this side of the debate, as disingenuous attempts at covering the real effects that market environmentalism has on the poor, namely discharging on them the social costs of market environmentalism itself. As Julia Elychar as remarked in her famous studies of neoliberal developmental policies in Egypt, members of underprivileged communities are now asked “to save themselves (and the common water, I should add) by their effort alone” (2002: 500), only to then be blamed if they fail to do so.

This chapter's argument largely follows the anthropologists quoted above, but assumes a more sympathetic approach to the cause of sustainability. For many families living in Crooked Cart Township, water management has long been, and still is a source of real preoccupation. The history of water management here has long been punctuated with conflicts between upstream users and downstream ones – that is people living closer to the water source vs people living downhill (see Liu 2005: 264-66). According to my informants, the opening-reforms (described simply as “capitalism”) have not represented a break with a conflict-less past. That is, during the Mao era, conflicts over water actually abounded. What is more, unquestionable physical constraints played a role. Fluctuating rainfalls meant reduced access for agriculture during the sowing season and greater pressure being put on communal water sources such as groundwater wells (see Chapter 5).

Stories of villages and households taking arms against one another because of irrigation water were part of the vernacular knowledge of resource politics. To “cooperate” (*hezuo*) or to “fight” (*zhengduo*) over water access had become a recurring question for many rural households I met during fieldwork.

This does not mean that Crooked Cart people did not ever find ways to autonomously organise and solve their communal water problems. Actually, they succeeded many times. Before 2008, the year when the first WUA appeared in the Crooked Cart area, many villages already had in place solidarity networks that would collect and redistribute water to households lacking access to the resource. Moreover, norms over resource access had already been identified and locally enforced. Similarly, rules as to how many days a farmer could water her allocated rice paddy were widespread and consistently adopted⁶⁷. These “sustainable” practices however did not come in the form of a formal institution such as a WUA, but emerged, as I will show, from the micro-politics of village life. Organising to solve collective problems (i.e. collective action), is here elicited by inspiring individuals, who are able to persuade people of the advantages that would come from acting together. Furthermore, it is never the immediate material benefits arising from acting together (i.e. water conservancy) that convince people to correct their behaviour and cooperate. Admittedly, they do actually renounce something when cooperating with others, namely the short-term benefits they would gain from free-riding on the resource. Rather, local people undertake “sustained collective action” and produce “successful collective action” only when the company with which they take “action”, and the principles upon which this company is predicated, matter to them. In other words, the *social relations* formed by acting together are, to them, more important than the aim itself.

Ostrom has been keen to emphasise that the users of a common resource can successfully organise in “sustained collective action” by positing goals that go “beyond immediate material benefit” (Poteete, Janssen, Ostrom 2010: 222). This is the point that the supporters of WUAs in China miss when they analyse the performance and durability of WUAs. The institutionalisation of principles that have been shown in the literature to be conducive to “sustained collective action” (Ostrom 1990) does not ensure that any of these associations,

⁶⁷ In Crooked Cart Township, irrigation water was distributed between March and June. The water from the Great Leap Forward Reservoir arrived first in Bamboo Forest Mouth Village. There, villagers would have fifteen days to water their paddies, before being required to close the sluice gate operating on their plots, allowing water to flow to the next village for another fifteen days. In this way, six different villages get their water for irrigated plots.

once created, will be populated by *social relations* capable of producing “successful collective action” — that is practices that afford both a sustainable rapport with the resource and the survival of these very practices through time (Poteete, Janssen, Ostrom 2010: 245). Part II will provide evidence for this claim.

Part II

The Sangou Township WUA

Let me start my ethnographic section on Crooked Cart's WUAs from the last association I studied during fieldwork. This was established in Sangou (SG), a township-level (*xiang*) community with fewer than 30,000 inhabitants located in a windy gorge north of Huize, 50 km south-west of Crooked Cart. My encounter with this particular WUA was arranged through a previous meeting with Tim Zachernuk, an important figure in the China-Canada Agricultural Development Program, with specific experience of establishing WUAs in China. Tim met me in his Qujing office in early February 2012, and discussed with me some of the problems experienced in introducing the WUA framework in rural China. Apparently, many of the projects supported by either the World Bank (Aarnoudse 2010; Aarnoudse et al. 2012b; Lu 2008) or by other players, the Chinese state included (see Plummer 2004: 4-5), disbanded once the money tap was turned off. The reasons for this were historical: the local political history deeply infiltrated the design of the associations, making WUAs a whole different beast than what was intended.

Many of the things Tim was describing to me, resonated with what Wang Jinxia, the leading Chinese scholar working on WUAs, had the patience to explain to me back at the Chinese Academy of Social Sciences, Beijing, the previous October. “The Gansu Province experience, which involved the World Bank and the DFID, was successful in that it offered huge monetary incentives to the participants. When funding recedes, so also does cooperation. WUAs and water rights are failing everywhere, not just in China, exactly for these reasons”⁶⁸. To that, Tim added a slightly more problematic statement: “Participatory practices are often intended to give greater voice to farmers even though they don't take naturally to the approach. There's disillusionment and alienation from the local

68 Interview with Dr Wang Jinxia, 20/10/2011, CASS, Beijing.

government. There's also a history of grudges towards cooperation in agriculture which stems from the communist past”.

These two water experts working on Chinese WUAs were very consciously warning me that I might be on very shaky ground. WUAs were unstable, gold-digging beasts. The great majority of Chinese WUAs were actually seen as failing in producing water efficiency, or achieving results which were not durable. The only thing one could do about them was “to compare large data and discover where the implementation process is going astray” as Wang Jinxia advised me. The quite explicit notion maintained by both experts was that, because the implementation process did not usually succeed in crafting the type of institution prescribed by the WUA model, the resulting “abnormal” associations were most likely to fall short of helping members save water. Even more so because Chinese farmers did not know how to cooperate, nor were they willing to do so unless they could profit from it. When I visited SG for the first time in March 2012, I was expecting the worst.

The Chair of the SG WUA board, Mr. Hong, introduced me briefly to the specificities of his association. Established through a large grant from the Sino-German Cooperative Program in 2009, the association was composed of 67 group leaders (*xiaozuzhang*) and a board of 11. All members came from two separate administrative villages located in SG's area, Stone Dragon and Black Soil Village and the WUA supervised irrigation and drinking water for a population of roughly six thousand people. Within the board, five people, who also made up the Stone Dragon Village Committee, were considered to be the collective CEO. As for salary and bonuses, the CEO revenues were not linked to the performance of the association, being rather "fixed" as in a government position. General meetings, attended by all the members but not by all the household heads, were organised twice a year, at the beginning of each sowing season. That is to say, none of the *design principles* of the Chinese WUA model I reviewed in Part I was consistently implemented. There was little autonomy; few incentives for key managerial positions and for saving water⁶⁹; and participation was low.

However, the water delivery technology employed was state of the art. As water was relatively abundant throughout the year⁷⁰, the technicians cooperating with the project

69 Irrigation fees, amounting to 12 RMB x mu were collected once a year by all group leaders. There was no mechanism linking the amount of water used to the amount of fees paid.

70 This should strike the reader as a distinguishing feature of Sangou Township, as compared to the water-

substituted the overground irrigation web of concrete channels – the most common delivery system in Huize County – with an underground network of pipes which, being controlled by an automated station adjoining the WUA building, allowed for on-demand delivery. Water for irrigation was thus accessed from the surfacing pressurised water pillars (*guan Zhuang*): technology which, I was told, created incentives for establishing farmers' co-ops entrusted with several *mu*⁷¹ of land (the smallest plot being of 50 *mu*), thus averting the pattern of sparse smallholding and stagnant productivity people in SG attributed to Crooked Cart's agriculture. Another source of water was the communal groundwater pump installed by the program's engineers which pumped water from 80 metres underground and which provided a maximum of 400 m³ of water per day.

One truly interesting aspect of the local water management practices was the sub-partition of water allocation based on resource use (*liang kuair de zuzhi*): household needs and agricultural production. Formally, the SG's WUA supervised the latter – which, given the on-demand scheme, was pretty much self-regulating – while the former was dealt with independently by the various hamlets located across SG. For Mr Hong this was due to the “traditional” (*chuantong*) method each community (*xiaozu*) used to allocate drinking water from communal water taps (*longtou*). This autonomous political practice (*zifa qilai de*) revolved around particular persons who decided to bear responsibility for regulating the communal use of water sources in small hamlets. When the Sino-German project first arrived in SG, these “traditional” management practices were integrated in the WUA scheme, replacing compulsory “participation” with the principle of democratic “representation”. The 67 group-leaders members of the SG WUA were all elected by a *xiaozu* or by a portion of it, and were asked to “represent” the interests of those who elected them during the WUA's meetings. Replacing “participation” with “representation”, I was told by Mr Hong, “contributed to build face with the local communities and assured that villagers accepted the new association”.

From my first visit, I returned several times to SG, spending weeks interviewing its members and attending its meetings. I will pause here on a series of interviews I conducted with one SG WUA group leader – whom I will call Group Leader Zhang – to show in detail the traditional water management as practised by local villagers. This, as Zhang will

poor environment of Crooked Cart. Many factors produced this situation: closer proximity to the Huize Dam, more efficient farming in the community, less terracing, plenty of untapped natural springs.

71 Chinese area unit. 1 *mu* = 0.0666 ha.

show, is thought to be able to achieve both “sustained” and “successful” collective action. The first interview was registered at Group's Leader Zhang house, while seated by its porch:

During the 80s, there was no tap water. People had to carry water from distant wells with poles (*tiaoshui*). When families had enough money, they would dig a well, and soon the water table fell too deep, nobody was able to get any more water this way. At the time, we were too poor for electric pumps. Many felt compelled to start building water tanks (*shuichi*) to collect creek and rainwater. [...] The problems arose at particular moments. For instance, our geography here is one of striking contrasts: from February to May, water is in shortage as you have dry weather coupled with the needs of agriculture. Every year is a drought year, so to speak. These are “particular moments” where it is not possible for families alone to solve the problem. Everyone is far more concerned with saving himself (*ziji*). There's the need for an institution (*zhidu*) or specific persons who can mediate among competing interests. [...] I think that in certain situations it is not wise to get away from the state (*zhengfu shi libukai de*). These are those moments when you have thirty or more households fighting among one other, or experiencing particular problems. These are also the cases when associations beget a solution (*yi xiehui wei chengguo*). Why did I volunteer for this kind of work? If not me, who else? In this situation, I usually go to the “haves”, take water, and bring it to the “have-nots”. Of course, I do it for free. Here drinking water is free, and it should be the same for water services.

On another occasion, Group Leader Zhang recounted to me how people like him are selected as group leader and what this position entails:

How are people selected for stewarding water (*guanshui*)? Mainly it comes with gathering and consulting. Through consultation, we think of how a particular problem could be solved, we imagine methods to get out of it. One such is to select a representative of the people (*renmin daibiao*). Usually in my small hamlet, ten, thirteen families get together and chose among them somebody that could represent the families in front of the village's leaders⁷². In this way, an association of representatives is formed and the cadres (*ganbu*) can relate directly with its members to speak to the wider community. These persons have to personally step forward and propose themselves as representatives. If they are up to the job, they are picked, if they later prove not to be so, they can be discharged. [...] I'm not sure whether this system was something that we started doing with the commune (*gongshefa*), or if it was

⁷² For a similar, ethnographically documented elective procedure in the local government of water, see Zhu Xiaoyang's Yunnanese ethnography (2011: 46).

something that we were doing before that and have kept doing all along (*xiguanfa*). What I know is that here we think the most capable (*you nengli*) should be the one who takes responsibility [...] Through consultation we also control people's behaviour (*xingwei*): we collectively single out and criticise (*piping*) the person who has done something wrong. This usually happens because of misunderstandings, people generally do not speak clearly (*shuobuding*) with each other. Bad communication often leads to resentment (*fenqi*). The key is to let them blow off, and then try to reach a compromise (*rangbu*). How do we reach [compromise]? The human heart is full of these resentments, full of grudges. You have to put your trust in the capacity of a “civilising culture” (*wenming wenhua*) to transform big issues into small issues, and small ones into none. If you think about the problem of local shortage (*xiaodifang de qeshui*), it is crucial that people maintain good relationships with others (*renqinghao*). If I care about others, if others care about me (*huxiangguanxin*), I won't have any reason to excavate a well on my own or to steal water from the communal tap.

The SG case shows four things pertaining to the likelihood that “collective action” could be undertaken in a community affected by cyclical water shortage. First, in Group Leader Zhang's description of ground-up arrangements for water management, the experience of cyclical shortage is at the base of villagers' decision to organise around the water problem. It is by virtue of having lived through periodic droughts, that villagers realise how their own behaviour could have an impact on their community's welfare. In fact, enough water will be available to everyone only if they collectively adapt to the now lower availability of water.

Second, villagers autonomously organise to enact neither a “participatory” nor an “empowering” association. Group leaders, to whom authority over water use is accorded, are in fact primarily middle-aged men, who will exert authority over farming households mainly composed by women. These individuals are required to exert a certain amount of “competence” (*nengli*), that is the ability to “get things done” smoothly and with the approval of one's own community (Feuchtwang, Wang 2001: 122). Remarkably, Zhang is unaware of where this particular political habit came from, and yet he is adamant that this type of arrangement pre-dates the arrival of the SG WUA. That is to say, regardless of the presence of a WUA, SG villagers have been capable of “sustained collective action”.

A third point is the following. The “sustained collective action” practices by the SG villagers is primarily concerned with evening up gaps in distribution. In other words, the

collective effort is towards achieving fair distribution in time of crisis. Group Leader Zhang is entrusted with the power to take water from those who have more, usually families living upstream, to those living downstream, who lack a steady source of drinking and irrigation water. However, punishment for violators is pursued collectively, with the greater community of users taking part into the “critique sessions”, thereby acknowledging that water access needs to be monitored and regulated.

This brings me directly to the last point. Villagers living in Zhang's hamlets confirmed in subsequent conversations that Zhang's work was crucial to living through “critical times” (*chijin*), and contested that in places where leaders are not “trustworthy” (*bukekaode*), it is difficult to have “human feelings” (*haorenqing*) for others, not to speak of getting water. These remarks, when coupled with Zhang's own analysis, shows that “sustained collective action” is “sustained” not only by rules, nor by the prospects of coping with the dramatic effects of a shortage. People involved in taking collective action against the predicaments of shortage explicitly mention that good relationships with fellow villagers are the most important requirements. However, there is more. Zhang goes a step further by claiming “mutual care” (*huxiangguanxin*) to be the basis for “successful collective action”. That is, good social relations when coupled with a caring leader – who is “capable” of restoring good relations by transforming “big problems into small problems” – might not just engender fairer distribution but also avoid the depletion of the resource altogether. “I won't have any reason to excavate my own well or to steal water for the communal tap” if everyone cares about others. These four points are also observed in the following case.

The Pitch-Black Plateau WUA

I arrived for the first time in Pitch-Black Plateau Village (PBP) in November 2011, thanks to the help provided by the staff of the Huize County Water Bureau. In this village, a successful WUA had been established in 2008 and I was highly recommended to pay a visit to its leader, Master Du, whom we first met in Chapter 2. PBP is a very remote agricultural village with no more than one hundred years of history. The local population amounts to 238 divided among 70 households (*hu*). Mud-brick houses are clustered around the top of Mohei Mountain, which lies at an altitude of 2,349 m to the North of Crooked Cart. Seasonality is marked by a succession of wet and dry months, with mild temperatures and fair weather. In the period 2008-2012, rainfall in the area swung between 486 and 843

mm⁷³. Further, as in many other hilltop villages in Huize County, arboreal vegetation was rarely seen in PBP, as most of the mountains slopes had been terraced and turned into rice paddies first, and more recently to drought-resistant crops, such as maize, tobacco and special breeds of wheat. Agriculture here lacks support from irrigation infrastructure, and water came mainly from the sparse rainfalls (*kaotian nongye*). During the 1980s, the intensification of agriculture brought diminishing marginal returns, which forced the majority of male farmers to diversify occupations, migrating towards Sangou or Huize in search of temporary work in the construction or manufacturing sector. Thus, women have been left raising pigs and caring for the few cultivated plots left.

Drawing water for agriculture here is hugely problematic: families had to invest heavily in the construction of autonomous water cellars (*shuijiao*)⁷⁴ which are now connected to the unpredictable household water supply network, completed in 1987 and never fully operational since then. Furthermore, without vegetation cover, the scant rainfall flows readily down the terraced slopes, often creating flash landslides, which deprive farmers of precious land plots. Even more worryingly, water shortage is forecast to worsen in the near future. By 2014, more than twenty households will be displaced to bordering villages, as 700 *mu* of land will be reallocated for the construction of a bigger, much more capacious water reservoir, which is supposed to provide fresh water to the community and resolve the scarcity, if not for good, at least temporarily. Water is literally, in PBP, a commodity for which people lose their houses and livelihood.

73 Pluviometric data were collected at the Huize Weather Station.

74 A water cellar is an underground container used to store rainwater.

Figure 10: Rice paddies in Crooked Cart



How did the community confront the increasing scarcity? In the late 1970s, under the pressure of already diminishing water availability, farmers in PBP organised autonomously to build six underground water tanks, made of mud and concrete, around the village's collective fields, so that farmers could collect rainwater and use it for irrigation. Following the loss of fertility caused by deforestation and inadequate agricultural practices, farmers abandoned the water tanks, now seldom providing enough water for paddies, and turned to short-term vegetable gardens, profiting from governmental campaigns supporting mulching (*dimo fugai*) or, as a substitute, the use of plastic-film (*bomosu*) to control water evaporation. Much of the village land thus changed to “dry land” (*gandi*), where the labour involved in adding water became secondary, and farmers started becoming less preoccupied about irrigation water than about drinking water. This is when Master Du and his outstanding dedication to the village water facility enters the picture.

When Mr Pu introduced me to Master Du, the leader of the PBP WUA, the preliminary remark about him was, “This man has been tremendously successful in his quest for improving his fellow villagers' livelihood and the amount of water they can make use of.

Indeed, there's only one village in the area which has an operative Buddhist shrine, and this is it. Master Du's decision to reopen the shrine has been rewarded: the gods are watching upon his association". Only later on I discovered that the local WUA, as such, officially lasted only a couple of years, and that the entire effort of sustaining water access to the village was accomplished well before the government decided to put its own hat on Du's accomplishments, recasting his enterprise as part of the government-sponsored introduction of WUAs started in 2008. By then, Master Du and PBP villagers' water management practices had already been considered exemplary (*mofan*) for quite some time. Unsurprisingly, it was not villagers 'participation' which secure their water supply. Rather it was Du who used his position and connections to divert into PBP a scheme for drinking water, which was then under way.

Figure 11: Building a water cellar



Being informed by the older management practices, PBP's WUA was chiefly preoccupied

with delivering water to households, where it would later be used either for domestic use or to water the households' private plots. With the construction of the water supply network in the 1990s, one portion of the Plateau, facing eastwards, was cut off from the delivery, thereby creating many “have-not” families demanding, sometimes violently, their fair share of water. The PBP's association – at the time still not a WUA – was a response to this problem.

How did the association arise? Master Du, a 57-year-old Han man, living a frugal life with his daughter-in-law and grandson in an old mud-brick house flanking the village's basketball court, was its architect, as well as an important figure in the area. With vast political experience behind him, Master Du had a long history of “leading the masses”. Many talked about him as a self-made man, capable of “great deeds” (*nenggou dashi deren*) and as a confident leader (*zishi*), sprung from a social context plagued by theft and bereft of capable men. I met with Du many times during my stay, and I was hosted in his house several other times. One day, sitting in the main room of his first son's abandoned house in the village, we discussed extensively the history of the local WUA and his part in creating it:

It's been 25 years since I started managing water in this area. I did it on my own, for free, and I was pretty good at it. Then, one day, the government gives a delegation from the people (*qunzhongdui*) the right to collect water fees in the village. This was during the '90s. To collect fees was a paid position, 100 *renminbi* per month, 1300 per year. This group of people came from the eastern side of the Plateau, but they didn't have enough 'face' (*mianzi*) to do the job properly. Every time they had problems collecting money, I was the one they turned to: “Master Du, could you please help us with this particular case here...Master Du would you mind helping us collecting the loan that we gave to...” and so forth. Eventually I ended up doing “officially” what I already did for free [...]. At the beginning of the 2000s water-shortage started biting, and the idea of establishing a “people's organisation” (*minjian zifa zuzhi*) for managing the shortage locally came to my mind. Having gathered around 60 household managers (*dangjia*), most of them young men but also two female, we decided to write up the association's constitution (*zhangcheng*). [...] The WUA (*nongmin yongshui xiehui*) proved to be difficult to organise at first, and later on, to keep it operational has been even more challenging. Resolving the issues arising from the local reform of water management was key. Prior to the county-level introduction of WUAs into small hamlets (*xiaozu*) in 2008, there was no comprehensive regulation in place, but instead an array of

different objectives pointing towards providing drinking water to every single household, which had at its centre the role of the community leader (*weihu lingdao hexin*). This is a practice where everybody takes care of the everyday management of water [...] by keeping with the standard set by the leader (*mofang daitou de zuoyong*). [...] Once the WUA was established, we just kept things going on as previously, making sure that everyone received their share of drinking water. The WUA was just another name for our association. The government came in, attracted by how we managed demand (*yaoqiu*) and supply (*gongying*) here, and since all these water-related governmental projects were being implemented, they thought “why don't we grasp the white cat (*zhua baimao*)?”⁷⁵.

As Master Du told me, his “organisation” was a political response from the community to an acute problem of access to fresh water. As with the SG case, its structure is not devised to encourage farmers' participation, but revolves around household “representatives”. In PBP, every household manager, representing the family economic activities⁷⁶, was summoned to draw up the organisation's constitution, a contract between households making the mutual responsibilities between families (*duiying zeren*) public. The organisation's meetings are ad hoc, being announced only when members experience a particular problem with water supply, or in order to coordinate works related to the construction of water cellars and the like. Again, in PBP, local political habits have been reworking from within the local WUA, making of it something akin to a legal fiction.

In terms of the *design principles* we considered in Part I, it should be noted here that the PBP WUA hardly fulfils all of them. Having a pyramidal structure, with an electoral base far from village-inclusive, Du's association resembles more a traditional village level organisation than a democratic forum. Moreover, it was not clear whether Master Du's monthly salary as fees-collector came directly from the association's budget. Since Master Du was also the village Party Secretary, how could one know whether the money collected this way was used to finance the local WUA or otherwise? Likewise the resolution of disputes over access: of the many conflicts Master Du said he had negotiated, many did not involve enforcing punishment. Particular violations, for example intentional damage to the

75 In relation to policy implementation, Deng Xiaoping famously stated that “no matter whether it is white or black/ It is a good cat so long as it catches mice (*guan baimao heimao huizhua shu jiushi haomao*)”, meaning that, in politics, it is not the ideological conviction foregrounding policies that is important, but rather their effects. The party officials in Master Du's story clearly refer to Deng's motto, opting to support Master Du's association as long as it conforms to the Party's political objectives.

76 A household manager (*dangjia*) in the traditional Chinese household is a different figure from the household's head, that is, its senior member (see Cohen 2005: 146-47).

supply network or its diversion for individual gains, where punished with eight years of “denied access” (*jinzhi jietong*) under the “constitution” drawn up by Du and the other household managers. According to Du, however, this sanction was never applied, on the ground that violations were often done out of necessity (*xuyao de*) rather than with malicious intentions (*huaixin*). Instead, something similar to Group Leader Zhang's moral suasion, was carried out by Du:

In a particular point in the village, there once stood a communal tap (*longtou*) set up with funding from the state. We had specific usage rules for its correct use: for instance, you could not let the tap run for more than three hours a day. There was one particular household taking more water than allowed, for its own domestic use and for the fields. They took three days of water out of the tap. The day I discovered they were doing so, I got really upset. “You got this completely wrong”, I told them, “You snatched (*wangqu*) water from the tap and seriously harmed the whole community. Do you realise that everyone's problem is anyone's problem (*zhongren de wenti daodi shi geren de wenti*)?” They were served with a curt reprimand, suggesting they publicly apologise to the village. Three days later, they came to me, admitting they were wrong.

This point confirms my previous reading of the SG data. PBP villagers proved able to organise in “sustained collective action” to produce drinking water access for the whole community. They managed to do so also thanks to the active, organisational role played by Master Du, a man known for his moral standing and commanding wide respect. Many commented upon their own involvement in redistributing water by referring to the moral example set by Master Du. “We want to live up to his example,” one of the few young men in the community said to me. Moreover, the relationship villagers had built with Du, allowed him to regulate household behaviours in ways potentially conducive to saving the resource stock, as in the case of the communal water tap. That is, in PBP, one finds evidence of “successful collective action” achieved not through the implementation of a WUA but based on local ways of managing water and on a local concept of authority.

In fact, despite its many problems, PBP's water supply was far from exhausted. Participant observation confirmed to me that water in the village was available and that villagers individually took care of interruption in the delivery by redistributing water between households or by organising time-constrained rotation in accessing the communal tap. As we have seen in Chapters 2 and 3, villages as remote as PBP do usually face severe

limitation in the availability of water. Unlike many other rural communities in Crooked Cart, however, here a “caring leader” had relentlessly fought for the well-being of his own community, to the point of bringing the mighty South-North Water Transfer Project to its village.

Master Du once told me his objectives as the leader of PBP's original water sharing network:

In 1991, I became the superintendent of the Plateau: my aim was to rectify the condition of extreme poverty which affected my home township. I said: “Fortune does not fall from the sky: a comfortable life can't be achieved, unless one tries to” (*xingfu bu hui cong tian jiang, xiaokang shenghuo zhengbulai, yaogan*). While I was in office, we wished some of our needs and desires could be realised: we wished we could get water, get electricity, get a road; we wished to be better off. In the community everybody aspired to a good society, to an environment where one could live a good life and enjoy it (*lianghao de shehui fengshang, renmin you ge anju leye de huanjing*). Over the years, I made all these wishes come true: water, electricity, road, eventually, with blood and sweat, even money.

In this last interview, Master Du brings home one final point of the argument presented in this Chapter. PBP's villagers engage in “successful collective action” not with the sole intent of averting water shortage. Organising and taking action together is the mean to achieve a “good society”, or as SG's villagers put it, achieve “good human relations”. Water for all is here conceptualised as one of the component of a life one “could enjoy”. In the next and final section of Part II, I will oppose the cases of SG and PBP to another village association I studied during fieldwork. This has the aim of showing that *rewarding human relations* and *caring leaders* are important factors in the production of both “sustained” and “successful collective action”. Getting a WUA design right, in the sense of writing the perfect set of regulations and training its members accordingly, is not enough. It is the enactment of the association by its members according to locally valued ideas of leadership and of mutual support, that fuels the collective capacity of sustainably managing a common resource.

The Bamboo Forest Mouth WUA

Bamboo Forest Mouth (BMF) is an administrative village (*xingzhengcun*) located on the partially paved road that goes from Crooked Cart Township southwards to Felicity Township. As an administrative village, BMF gathers together a series of natural villages (*zirancun*) and village sections (*xiaozu*) which were once clustered in two different production brigades (*shengchan dadui*) under the people's commune system. Today, BMF oversees 23 smaller villages and 7,276 people. Its economy is based mainly on smallholding farming and migrant work: almost 99% of the households depend on less than 10 *mu* of land⁷⁷, while 42.6% of the workforce are employed in non-agricultural occupations outside the community. The main crops are maize, rice, *houytuynia cordata* (*yuxingcao*), red pepper, lima bean (*candou*) and potatoes⁷⁸.

What matters in the context of our present discussion is the village irrigation infrastructure: more than 62 km of concrete channels (*guandao*), ditches (*qudao*) and small drainage gullies (*shuigou*), which cross the 1890 *mu* of flat and hilly land in the community⁷⁹. Water mainly comes from the Great Leap Forward Reservoir. The infrastructure, during the time of fieldwork, was a system in constant mutation. New branches were under construction, while others were falling into disuse at such a pace that even the experienced staff at the local Water Bureau found it difficult to cope with the changing practices (see Chapter 7).

Along with PBP, BMF's farmers were coming to terms with three long years of drought (see Chapter 2). The crisis was such that Crooked Cart's Water Bureau very often had to intercede with the reservoir authority, claiming ad-hoc distribution of irrigation water for the village or augmenting the distribution network and its carrying capacity. The official statistics for the whole area report 15,000 persons hit severely by water shortage in 2012, and 16,000 cattle deaths. Since 2010, 39,225 *mu* of land have become unsuitable for agriculture⁸⁰. Of the many geographical features, one in particular heightens the effect of scarcity on the BMF community: plots and households are very scattered. A series of

77 Note that the official data do not allow for reporting less than 10 *mu* of land. In a survey carried out by the author among 30 BMF households in November 2012, the mean amount of land belonging to the household was 3.02 *mu*. Only one family reported owning 10 *mu* of land.

78 BMF Village Committee data.

79 WB data. The main ditches are: *dongzhigou* (water flow: 0.5 m³/s; length: 21 km); *nanzhigou* (0.5 m³/s; 17.32 km); *dianwei dongzhigou* (0.5 m³/s; 8 km); *dianwei nanzhigou* (0.5 m³/s; 7.5 km); *xiaopo dougou* (0.2 m³/s 1.5 km); *huchanggou* (0.3 m³/s; 7 km).

80 Data from Crooked Cart Water Bureau Internal Documents.

channels built in the past few years to overcome this particular problem, however, was left dry most of the year, increasing the perception of widespread shortage and instilling distrust towards the government. Water shortage for BFM villagers was an event intertwined with the self-evident reality of government failure.

In what ways did the perceived bad governance affect the community? Agriculture here (and everywhere) is a time-specific activity, with the major sowing season occurring between March and June – a period called Great Spring (*dachun*) – and between September and November, the Small Spring (*xiaochun*). It was the concomitant lack of water with its scheduled allocation that convinced many that what was affecting BFM was not solely drought but bad governance (*mei you ren guan*). “It is not just that water is in shortage, it is that there's none when we need it (*xuyao jiu meiyou*)!” many remarked on the eve of the upcoming rice-planting season. Another related problem, this time with drinking water, sprang from how electricity was brought to the community in the 1980s. For my informants in BMF, before the construction of the local hydroelectric station, drinking water abounded. Then half of the village was cut off from the scheme, as water coming from a local spring was diverted and channelled through the electricity station. The demands for a better use of water became urgent, and many in the government felt compelled to address the mounting requests for fairer allocation.

In 2008, BFM's Village Committee came up with a constitution for a new association, the BMF Irrigation Water Users' Association (*nongguai yongshui xiehui*). The association's constitution was written by the former head of the Huize Water Bureau, an expert on WUAs who had also published in the relevant Chinese academic journals on this very topic. In Table 3, I compare the BMF WUA constitution with the World Bank and Chinese expert's indications as to how to craft a functioning WUA.

Figure 12

Chinese WUA principles (based on World Bank 2010 and Wang et al. 2010)	Constitution of Bamboo Forest Mouth Village WUA
Legal status and participation	Legal status (Art. 3) and participation (Art. 13)
Fees collection and full cost recovery (management and delivery)	Fees collection (Art. 32) and full cost recovery (Art. 33 and 34)
Rules crafting and enforcement	Rules crafting (Art. 20) and enforcement (Art. 23)
Dispute resolution	Dispute resolution (subcontracted to the VC)

Unfortunately, it is not at all clear whether the association worked the way prescribed by its constitution prior to my arrival. In fact, during my stay, the whole association was little more than a plaster plate hanging from a wall in the VC Building, where its office was supposedly located. No meetings were ever called. There was no direct involvement of the community whatsoever, no supervision of canals, not even during sowing season. Ultimately, no vigilance on the levelling of rice paddies was carried out. The entire institutional design boiled down to one main figure operating in some capacity under the WUA framework: Deputy Director Yu, the WUA's alleged tax collector (*chuna*) and a member of BMF's VC. We should consider the Deputy's work briefly to understand how the BMF WUA came to be understood as a fraud (*pianzi*) in the community.

A few times during fieldwork, I managed to assist Deputy Director Yu and some of his associates in dealing with complications ensuing from the delivery of water. Yu, an elusive man working also as a water expert in the local VC, was at best unresponsive to villagers' complaints: when arguing got serious among contenders, or between him and the locals, he usually stepped back, letting others with more persuasive powers reduce the acrimony. While many of his VC colleagues were forthcoming in addressing the need for local officials to “step in”, setting examples (*daitou*) for the people and confront issues of accountability in an overt manner, he often refused to admit there were such things as disagreements between officials and the locals: “problems are among the people, not with us”.

Once, when commenting on how the VC's chairman risked getting himself beaten up just

to calm down a violent fight between a young married couple, he added humorously: “It is a shame you did not get killed, boss, I'd be chairman now, and – you bet – I wouldn't get myself involved in such nonsense (*chepi*), you rest assured!”. Deputy Yu was obsessed with climbing his way up within the Party, many muttered, with little care for what the job actually entailed.

Already in his fifties, Yu was too old to make a career away from Crooked Cart, all his hopes resting on local politics. The “water sector” was a privileged arena precisely for jump-starting a career, in that collecting water fees in a context of loose administrative control allowed him to gain control over state funds. As I discovered later on, the Deputy was still collecting irrigation fees based on land-extension (15 *renminbi* x *mu* x year), rather than by actual water use. This was contrary to many state and provincial regulations⁸¹.

While BMF lacked the technology for measuring irrigation water use, Deputy Yu – according to many BMF villagers – seized the opportunity to put his hand in the tax till, embezzling more money than he would have embezzled had he levied water tax based on actual consumption. The community was using less water according to its farmers, but Deputy Yu was forbidding them to gain from their water saving strategies. Moreover, little money was spent on salaries, as Yu was apparently the WUA's only active member. Because of that, his WUA should have been thriving, awash with money. Did he then proceed to invest that surplus in the maintenance of BMF's water infrastructure? His constant requests to the Crooked Cart's Water Bureau for external help with the maintenance of the BMF irrigation network revealed, despite fees collection, that not so much of the budget was spent on this task either.

What did Deputy Yu do with the money instead? It is difficult to say, even if some clues suggest he used the allegedly embezzled funds to acquire supporters for the upcoming 2013 Village Committee and Crooked Cart's People Congress elections⁸². Coming from a

81 See the 2002 "Water Law of the People's Republic of China" (Order of the President No.74), Art. 49 (online at: http://english.gov.cn/laws/2005-10/09/content_75313.htm), and the 2005 Yunnan Province Implementation Protocol, Art. 18 (online at: <http://baike.baidu.com/view/4309097.htm>).

82 *Zhen Renmin Daibiao Dahui*. The Township People Congress is a elective legislative body of the PRC. Within the limits of their authority as prescribed by law, they adopt and issue resolutions and examine and decide on plans for local economic and cultural development and for the development of public services. Also, the Congress elects and has the power to recall governors and deputy governors, or mayors and deputy mayors, or heads and deputy heads of counties, districts, townships and towns.

hugely influential family in Pu Family Village, Yu was acquiring prestige in spite of malpractice, a fact that many BMF natives were aware of and spoke of bitterly. For them, Deputy Yu had seized the money with the intent of purchasing villagers' votes so that he could be elected to a better-paid position within the local government.⁸³

The level of trust Deputy Yu commanded in his community was appalling. A survey carried out by me and two assistants among thirty households in two different sections of BMF Village reported that 96.6% of the respondents believed that governance over the irrigation network was “not at all satisfactory” (*feichang bu manyi*). Moreover, almost nobody actually knew about the BMF WUA, or when it was founded: “They come only when there's money to collect, how am I supposed to know if there's an association for that?” argued one of the respondents. In Pu Family Village, discontent towards Yu was also present because he was seen as an “uncaring” (*buyuguanzhu de*) group leader, as somebody who did not use his powers and authority for the sake of the community. When he was to select the construction team to which a particular maintenance job in the village had to be given, he usually subcontracted it to outsiders, when everyone else expected it to be given out to people belonging to the village community. This generated a lot of resentment among Pu Family villagers, as infrastructure contracts (e.g. repairing water channels) meant a huge sum of money being poured into the village.

During my stay, many referred to a 40,000 *renminbi* contract Deputy Yu had the “insolence” (*houlian*) to give to his own circle of friends, regardless of the fact that the community had expected otherwise. Neither were his monitoring activities immune from recriminations: during sowing seasons, farmers were asked for up to 100 *renminbi* per paddy, if they wanted water to be delivered to the fields. While Yu did not actually have the power to stop water from flowing, many feared his retaliation had they not complied by paying the undue exaction. In sharp contrast with what happened with Master Du and Group Leader Zhang, few trusted Deputy Yu and most felt that the local WUA could hardly give them anything good.

The story of this last association shows that collective action on water does not come easily. In the Yunnanese countryside, villagers show that they are able to tackle the

⁸³ As I later discovered when I witnessed the 2013 elections during supplementary fieldwork, Deputy Yu was elected as a People's Representative of the Crooked Cart People's Congress. Party Secretary L., also running for the same position, only ranked second, failing to seize a congress seat.

problem of scarcity by devising local ways to even up gaps in water distribution. They also engage in water conservancy on the basis that the “good society” – where living is enjoyable – is one where water needs to be available to all. This notion implies that one ought to refrain from wasting water, so that future generations of local villagers may live in an equally enjoyable community, where people “mutually care” for others. To sustain and make possible this type of community, SG and PBP's villagers organise themselves in solidarity networks and give themselves rules to maintain the communal source of water. “Sustained” and “successful” collective action are achieved here, but no thanks to the top-down introduction of allegedly empowering associations. This is because my interlocutors prefer local ways of organising, including the notion that cooperation is elicited by “exemplary” (*mofan*) and “caring” (*guanxin*) leaders. Because Deputy Yu was widely seen as the negative mirror image of such a leader, no one trusted him or participated in his association. This was regardless of the fact that the association’s constitution enshrine all the institutional principles a well-functioning (i.e. conducive to “successful collective action”) WUA should be based upon.

In the conclusion, I will address the further issue of promoting “successful collective action” on the Chinese water problem. In particular, I will point at where both Chinese WUA supporters and my own interpretation of successful management fall short of what is actually needed for this endeavour.

Conclusions

In this chapter, I have considered the introduction of three WUAs in an agricultural community in south-west China. The ethnographic data presented suggests that WUAs are being imposed upon a context rich in “customary” solutions to the management of fluctuating water availability. These are informed by expectations of what people's representatives should do and according to what principle they should relate to others. My informants show themselves to value specific forms of cooperation – based on trust and mutual care – which are ultimately not considered sufficiently by the proponents of the WUA model in China. While those arguing in favour of WUAs and I both move our analysis of “successful collective action” on water from Elinor Ostrom's work, the former seem to neglect the central role that Ostrom gives to issues of trust (e.g. Ostrom 2010: 21). Rather, WUA supporters seem to think that water efficiency is engendered by the

consistent application of a reproducible institutional blueprint, even though the evidence is not entirely supportive of their position.

In a recent collaborative work (Wang et al. 2010), Wang Jinxia demonstrates statistically that the type of WUAs introduced by a World Bank project in Gansu Province, north-west China, is more successful in saving water than the “Non-World Bank” WUAs in her dataset. This claim is problematic on many accounts. For one, it relies on proxy measures of “sustainability” (e.g. water use per *mu* of land against crops yields) that, by the authors' own admission, “requires caution” (2010: 677). Moreover, some of the data they present actually suggest that villages where WUAs operate according to the “dogmatic” Ostrom model use more water to produce greater yields. This figure would rather suggest that the WUA model introduced in China is actually boosting agricultural production rather than saving water, as at least one other study confirms (Liu J. et al. 2008). This proposition could lead to over-harvesting the resource, and thus to squandering Ostrom's own decades-long effort to understand the issue of how to govern common resources sustainably.

In Part I of this chapter I have already mentioned issues relevant to measuring “sustainability”, and therefore the position taken by Wang and collaborators (i.e. supporting the introduction of WUAs with ambivalent data) should not be taken as a factual error. The problem is that WUA advocates tend to produce circular arguments to support the introduction of WUAs. This happens not only with Wang's paper (2010: 675), but whenever advocates of “participated” and “empowering” grassroots institutions demonstrate that these institutions are successful by measuring achievements not in terms of water conservancy, but of members' participation turnouts (see Mosse 2008: 94). My findings suggests that “successful collective action” is not achieved through engineered participation but via context-specific ways of attributing responsibility and building trust.

As has been noted elsewhere (Plummer, Taylor 2004: 68), the issue of participation is not salient in many Chinese villages. Representatives are rather asked to live up to villagers' expectations, reciprocating trust with good leadership. In doing so, my analysis follows recent works in the analysis of how welfare provisions are distributed in local Chinese communities (Tsai 2007) and how valued human relations sustain the management of the commons (e.g. Theesfeld 2004). Notably, as Chapter 3 has shown and the interviews in this chapter confirm, the project of sustaining Chinese people's welfare is one wherein the

local state still plays an important role. In this regard, Group Leader Zhang and Master Du's words are revelatory of the permeable perimeters of what I termed the “co-acted” Chinese State. Both are recruited within the local administration because they provide services the Chinese state is no longer willing nor able to provide.

Yet, both social engineers of the type promoting WUAs and “trust-huggers” such as myself, might fall short of what is actually needed to achieve a progressive water politics of the type required to save Chinese and global common waters.

In developing this chapter's argument, I followed David Mosse's point that collective action also has symbolic meanings (1997). Mosse proposes an approach to collective action that is not premised on the idea that these have to serve merely material ends. In my field site, the stewardship of the common water is often realised within a “traditional” political system which stresses individual responsibility, but also trust in the power of hierarchical structures⁸⁴. Trust, good leadership and rewarding human relations is key to the people who populate the WUAs of Crooked Cart.

However, this type of “sustained collective action”, capable of reproducing the conditions for the fair distribution of water within the network of people who engage in it, does not amount to “successful collective action” for the sake of the shared world. In the chapter, I argued that both SG and PBP WUAs prove able to fight against overexploitation.

However, my data should be taken to show that such an outcome is most likely the unintended consequence of collective contributions to the well-being of the people one cares for the most. In other words, the sustainable use of water here is not part of an explicit political project to save humanity from self-annihilation due to the mismanagement of nature – only think of the level of water pollution in China.

I submit this position to the reader bluntly so that she may be salvaged from the view that water politics lies in the realm of individual commitment and good-heartedness (see Baland, Paltteau 1996: Ch10). I should also warn that, when it comes to “empowering” marginalised individuals within traditional water networks themselves, trust and leadership

84 Note that in David Mosse's study of WUAs in Tamil Nadu, collective action was not "dependent upon trust generated through interactions and associations but is found upon relations of caste power, graded authority, personal patronage and the redistribution of resources (as bribes and payoffs)"(2008: 98). I believe that Mosse's qualifications would suit my own study of WUAs, though do not suggest, as he does, that these sets of relationships are ultimately exploitative.

do not suffice. Lu Caizhen has widely shown for China that, irrespective of whether a WUA is present, women's right to water tends to be neglected, as rural dwellers still see women as undeserving individuals whose needs are incorporated with those of the household head, usually a man (Lu 2008; see also Metha 2001 and Mosse 2003).

Rather, as we have seen in Chapter 2, the challenge of producing progressive water politics – which Market Environmentalism seems to be failing at – should not be put on marginal communities nor individuals, who most likely do not possess either the capacity or the willingness to produce global changes in the management of common waters. This is even more true in light of what I shall describe in the next chapter, where what has hitherto appeared as a minor problem in the daily circulation of water becomes an insurmountable obstacle: trusting someone to help you when in need.

Chapter 5

Contradictions among the People: Dealing with Ambiguous Language, Low Expectations and Cooperation in Rural China

“You shouldn't trust them (*ni buyao xiangxin tamen*)” was the notion that friends in Crooked Cart tried to hammer into my head for as long as I stayed in their company. This comment was triggered any time I failed – for whatever reason – to carry out interviews or secure access to a specific place. During fieldwork, I encountered many occasions when people would not show up for interviews, or promised to bring me somewhere and then inexplicably failed to do so. I was forced to spend countless Sundays alone in the Water Bureau dormitory, waiting for someone who would eventually fail to show up. This is how this “non-cooperative game” was played on me. Research participants – within and outside the local bureaucracy – would beg me to stay over for the weekend and spend some time with them, only to eventually tell me that something else had come up that meant rescheduling. Those with a thicker skin would ramble on, saying that they did not really mean we could meet *this* weekend. Finally, the more sophisticated would argue that I – an inexperienced, wide-eyed foreigner – had failed to understand what they had really meant. On such occasions, I would usually find solace in visiting Old Z, who never went anywhere but his cousin's house, to help her with household chores. “Grin and bear it (*nilaishunshou*)”, he would say to me, “people here, they just don't mean what they say (*shuohua bu suanshu*, lit. not counting words)”.

In this chapter, I ask the reader to consider the experience of being let down by research participants – undoubtedly a familiar one for the ethnographer – as having more to it than just plain annoyance. Analytically, three different issues are at stake here. First, there is an issue with language. While I am certainly responsible for a great share of misunderstandings that occurred during fieldwork, much more often, it was simply the case that what was being said to me was phrased euphemistically. Sentences like, “It is preferable (*bijiao xihuan*) if we meet there”, or “I'll come around (*zuoyou*) breakfast time”, were usually used not to negotiate a flexible appointment but to gild the unpleasant pill of refusal, meaning “I won't come there”, or “Can't make it today”. Second, there was a problem with expectations. When my research informants said that “people can't be trusted” or that they “don't mean what they say,” they were suggesting to me that people talked euphemistically because they were intrinsically untrustworthy and that I should

consequently expect less from them. Lastly, there is the more abstract idea – yet hotly debated locally – that people in Crooked Cart are no longer able to agree on collective plans, no longer able to cooperate on common projects, whatever these might be. In that respect, Old Z was one of the most disillusioned, often sighing that in Crooked Cart, villagers “won't even plant rice together any more”.

This chapter is an exploration of these three interrelated issues: indirect language, low expectations and faltering cooperation. Following on from the discussion on cooperation given in the last chapter, here I will especially focus on the role that language plays in bringing people together on a common project. While the literature on human cooperation thinks of language as a coordination mechanism that facilitates cooperation between individuals, here I will focus on the many occasions where language appears to be an obstacle to it. Because of that, my analyses will go beyond language, advancing an historical approach towards problems of cooperation that highlights the role of contextually informed, pre-linguistic expectations about the behaviours of others. This approach will bear out the ambivalent role that the material and immaterial legacies of Maoism have in envisioning the possibility of cooperation in China.

This chapter is divided into three parts. **Part I** investigates how a particular habit of speech – indirect and allusive – has gained popularity in Crooked Cart and studies how this habit is employed to deter people from expecting help and support from fellow villagers. **Part II** proceeds to ask why Crooked Cart's dwellers maintain the counter-factual belief that others cannot be trusted, and that collective enterprises are no longer considered to be within the reach of Crooked Cart dwellers (despite evidence to the contrary). In this section, I rely on memories of the Maoist past that have been shared with me, to suggest the historical roots of this shared expectation of uncooperativeness. Recent historical events – both local and national – could be interpreted as producing both low expectations of cooperation and the game of indirect communication described in Part I. Finally in **Part III** the same historical roots identified to be at the root of low expectations – i.e. Maoism and its abrupt ending – are seen as providing the cultural resources needed to overcome those same negative assumptions. The circulation of water – in both practical and institutional senses – and its past of collective achievements prove to be a productive site for stitching up relations of trust and cooperation with others.

Part I

One Day at the Water Bureau

In the discussion that follows, I dwell on the first definition of “cooperation” I gave in the previous chapter. Here cooperation stands for individual contribution to a common cause. In this sense, the focus of the attention is not on the agency of “cooperative groups” such as WUAs – what they do and according to what rationale they constitute themselves – but rather on the initial moments of “cooperation”. In this chapter, we deal with individuals showing a disposition as well as taking the right course of action that would make the possibility of “cooperation” visible to others. In Crooked Cart, there are multiple problems which may be solved if people are willing to “donate” time, effort and resources to a common cause.

To organise labour so that water from a neighbouring water reservoir arrives to the irrigated fields on time requires a huge deal of “cooperation”, which entails not just the coordinated human activity whereby paddy fields can be watered, but also the goal-oriented social interaction that each Water Bureau member entertains with the others. Cooperation here is as much about *sustaining* this institution as it is about *making* the circulation of water effective. Outside the Bureau, cooperation is also about achieving certain goals. Farmers may want to establish partnerships or co-ops to widen the range of their possible customers. However, it could also be about more basic, essential goods: when the local administration fails to provide drinking water to households, local people have to “cooperate” to secure its supply by other means. A third moment where cooperation is at stake is when farmers have to approach state officials for their help⁸⁵. In Crooked Cart Township, both villagers and officials lamented to me that this third moment is when it is most difficult to trust the other to cooperate. How would one know whether a collective task could be brought about effectively? One should commit one’s intentions to language. Let me give an example.

One day a delegation of farmers showed up at the Crooked Cart Township's Water Bureau to lodge a formal complaint against the office. The ten farmers, mostly women, all of

⁸⁵ I recognise that these are different forms of “cooperation”, each of which has its own peculiarities. Here, I do not aim at distinguishing between them. Jon Elster has attempted a formal distinction in one of his major works (1989).

whom were proudly dressed in tattered Mao suits and head coverings – blue army hats for men, patterned kerchiefs for women – had waited long hours in front of the main building gate for the office to open. They were now resolute in making themselves heard by the local authorities. Poor service in water provision was ubiquitous in Crooked Cart Township, and the farmers were requesting the urgent maintenance of a particular pipe, seemingly neglected by the bureau's personnel. Some of the farmers' houses had been flooded to the point that food stock had been damaged. “Who is going to pay for that?” was the question angrily shouted in my face by a member of the delegation, some minutes before the bureau opened.

What followed when the delegation entered the office is interesting for two reasons. First, the delegation had told me the details about the flooding and the broken pipe in confidence, but these were never disclosed to the Water Bureau's staff. Welcomed with tea and invited to wait, the farmers stood silent for what seemed endless minutes. Eventually, one of the women gathered enough courage to speak and asked for the boss (*lingdao*) to answer their plight. Notoriously, peasants in Crooked Cart have a hard time speaking in public. Feeling either too shy to do so, or too worried about “losing face” (*diu mianzi*), peasants preferred to remain silent. A local trope emphasises this almost reverential awe towards making a speech. “To speak three words in a row” (*shuo san ju hua*) was a sentence used to depict those who were not afraid of speaking in public. Deference towards hierarchy would also play a part: it was judged more audacious to speak in front of state officials and the like. Obviously, this was a problem for farmers when filing complaints.

Second, at the Water Bureau – an office with six operative members employed full time and with a pyramidal organisation structure – no one took the situation in hand, as if no one had his or her own capacity to receive formal complaints. That day Mr Yong, the office's head, was not present and no one else appeared to be covering for him. The farmers were asked to wait until their patience wore thin. When the delegation was about to leave, Secretary Yun, the highest ranking female worker at the office – the *de facto* “boss” in Mr. Yong's absence – told them that, if they had not been provided with an answer, they should have known why. The meaning of this very obscure sentence was not clarified at the time and could be interpreted only by those knowing that the farmers were under obligation to maintain their own water supply in good shape, as clarified by the

contract on water provisions every household had to sign with the Bureau.

Upon hearing that sentence, however, the myriad of convoluted excuses and double entendres I had been left playing with for so many Sundays came back to my mind. What was the reason behind these sorts of language games played in Crooked Cart? Why did people there seem to take joy in never meaning what they say, or in never saying clearly what they really mean? Why would they not be willing to “count” words, as Old Z complained? Moreover, the behaviour of the delegation had been quite incongruous, as if something had to be concealed. That day I eventually ended up with the impression that ambiguity – here taken to mean the employment of purposeful indirectness in language – had to be a component in the life of Crooked Cart's people, and that this speech habit had to have considerable implications for the management of water in the locale. If people make a conscious effort not to be fully understood, how could they then agree on the very specific and collaborative tasks required to effectively manage water? How could farmers and state agents cooperate if, in speech, no one would be supportive of its possibility? And if they do cooperate, how do they overcome the ambiguity?

Ambiguous Language

Let me pause for a moment to consider the Water Bureau. Despite the reluctance to take command shown during the delegation's visit, this office was one of those places where everyone aspired to be “the boss”. When I say that everyone aspired to be the “boss”, I am not referring to dreams cultivated in secret, but to something more visible. Indeed, such was the value attributed to this position that a game of sort was often played among the bureau's members. As I came to learn during fieldwork, this game was about taking pleasure in giving orders to others in a presumptuous and pressing tone, a communicative style only a “boss” could aspire to play with. Such play would often result in a joyful masquerade where an audience of giggling men and women would behave with overdone and mellifluous subservience to the commands being given: “You're the boss (*lingdao*), old brother, you're the high official here (*daguan*),” people would say with faked deference.

One relevant aspect of the game, is that it is deliberately built on Chinese language. Addressing older persons with the honorific prefix *lao*, meaning old, was always taken as evidence of one's good disposition towards being commanded or receiving orders (*bei*

fenfu), and indirectly as a cue that one was making a joke. As the staff of the Crooked Cart Township's Water Bureau informed me, “every old person is also a boss (*lingdao*) in China”, thus formally acknowledging seniority in language meant showing indirectly acceptance of hierarchy and one's position within it.

Being the oldest in a group of people made room for the re-enactment of such a play. Moreover, *lao* was just one node in a topography of power which enlisted a host of different figures such as “foot soldiers” (*xiaozu*), “porters” (*jiaofu*), “common people” (*laobaixing*), “followers” (*congren*), “big players” (*dashi*) and “people from above” (*shangpai*). Indeed, much of the local politics was played like a game, by counting how many “followers” or “foot soldiers” considered someone to be a “big player”, how many “porters” one could rely on, or how convincingly a person could show himself to be one with the “common people”.

To be a “big player” in Crooked Cart, one had to know how to speak and how to play around with language. As a consequence of this, most of my fieldwork was spent with people speaking in a very indirect fashion. For instance, many government workers would recur to indirect communication when talking about sensitive topics, business plans or private matters. In general, state officials' conduct was easily assailable as immoral. It involved managing public money and feasting with other members of the government. Playing around with language helped muddy the waters, downplaying one's own position within it. That the “language” spoken by government worker was “empty” (*xuhua*) and “ambiguous” (*huise*) was known to everyone.

Ambiguity was very much needed to uphold decency with the public. Gambling — which was illegal for anyone but especially dishonourable for government workers, who were seen as gambling with public money⁸⁶ — was often referred to as “having a talk” (*kaikou*). Whoring, as shameful a vice, was described as a “cultural” (*wenhua de*) activity. Behaving appropriately with Party peers was another matter. Knowing how and what to conceal or to reveal was the single hardest achievement one would have to consider before trying for a

86 During fieldwork, a case of gambling in the workplace made research participants quite sensitive to the issue. Four Water Bureau officials in Qujing Prefecture (under which jurisdiction my field site is located) had been found playing *majiang* and other card games while on duty. In April 2013, the same officials were again caught gambling in a teahouse. On *Weibo* one user commented on the officials' recidivism: “Another drought this year and look how relaxed the Water Bureau is”. For full media coverage, see http://news.kunming.cn/yn-news/content/2013-05/09/content_3287580.htm. Last access 20/10/2014.

career within the government. Halfway through my fieldwork, my friendship with one of my interlocutors, Old Brother, began attracting some attention from the local government. One day I was summoned to the Water Bureau where Secretary Yun cautioned me about associating with him. This man, albeit a member of the Party, had malevolent intentions, and he was a fraud (*jiade*), not to be trusted. Later that day, feeling a bit odd about the warning, I decided to tell Old Brother, what had been said about him. He explained the admonition as stemming from the jealousy that evidently Mr Yong, the head of the Water Bureau, felt towards him:

The fact that you're hanging out with me and not with him is a lower back blow (*da ruanlei*) for Mr Yong. I'll tell you something: intriguing, conspiring (*mimou*), working against others (*guoxin doujiao*), we call it "the nuances of politics" (*zhengce secai*). In China, if you are explicit (*mingque*) about your intentions, you get punished. If you want to do something for yourself, for the people, shut your mouth, keep a low profile and do not openly criticise others.

However, the indirect use of language did not belong only to the party politics played by officials. Knowing how to play with words was a skill very much valued by Crooked Cart Township's peasants as well. "Chinese people (*laobaixing*) have a saying: what you say when you walk along carrying a hoe is different from what you say when you've stopped, leaning on your hoe. When you're leaning on your hoe, this is when you're telling the truth", Dr Rong a part-time farmer, part-time electrical engineer, once told me. When an opportunity for profit arose in the locale, such as in the form of agricultural development projects, farmers were keen to establish cooperatives together. The only problem was that co-ops were "cooperative" only in name. Envy towards the wealthiest members of the co-op, for instance, would make poorer farmers try to sabotage such projects from within, by duping others members into believing they did, for instance, plant a specific crop, while in reality planting another.

Now, a by-product of this communicative habit, involving a huge deal of manipulation, was that people in the community felt it was difficult to read the intentions of others. For much of my fieldwork I struggled to understand the implications of this particular use of language and the ambiguity it produced in social settings. Maybe what struck me was just the complacent deployment of purposeful "indirection" in ordinary communication, which anthropologists and sinologists have been keen to document in their writings (Fernandez,

Huber 2001: 5; Steinmüller 2011, 2013; Link 2013). Or perhaps, given the familiarity I had with the local state and the many occasions I witnessed the administration dealing with complaints, what I was noting down was just the intentional production of uncertainty, a stratagem to keep the state unpredictable and, through that, difficult to counter (Bailey 1988:129).

This chapter, however, proposes a different take on the issue. A hint that behind the delegation's visit something different was lurking could be found at the inception of the story, when I had my conversation with the farmers before they entered the Bureau. Given the ability with which, at the office, one could claim or refuse to be addressed as the “boss”, and acknowledging the villagers' lack of skill in making requests, it was easy to predict the outcome of such an expedition: the villagers returned empty-handed. However, the farmers were not at all unprepared for such an outcome. They did not confront the bureau as blank slates, easily talked out of their legitimate requests through bureaucratic negligence. The delegation had not actually *expected* anything different: when chatting by the gate of the Water Service Building, the oldest member of the group pointed out to me that: “it is pointless to ask for their help, they just don't care (*zhao tamen mei you daoli, tamen bu guan*)”. The group nodded in agreement. Despite holding such a grim view of their prospects, the delegation did not falter but appealed to the government workers, giving their demands an opportunity to be considered.

The stubbornness of the farmers' delegation, I argue, begs for an explanation. The expectations of being defeated on this occasion worked to reinforce the cohesiveness of the delegation, almost as if to be proved right would justify the trip. To make sense of this paradoxical situation, where low expectations engender cooperation, I will now need to bring the ethnographic material discussed so far into dialogue with a recent interdisciplinary interest in cooperative behaviour, and the role that expectations and language play in it.

Expecting the Worst

Studying how people cooperate and what role is played in cooperation by language, this chapter aims at translating anthropologically a concern with the notion of “expectations” widespread in the social sciences. That expectations about other people's potential

reactions to any intended line of conduct should be considered, when studying how humans get together, associate, and produce ordered behaviours, has long been the source of interdisciplinary concern (Garfinkel 1964; 1984; Goffman 1964, 1967, 1969; Basso 1972; Bourdieu 1977; Brenneis 1986; Bourdieu, Wacquant 1992; Elster 1983, 1989; Sperber and Wilson 2002; Ostrom 2005; Bicchieri 2006; Guala 2012; Guala et al. 2013). Assuming that somebody would behave in a specific way under given circumstances, or attributing a set of intentions to the people around us is, for many, what makes coordinated social activity possible (Elster 1989: 249-250; Ostrom 2005: 4).

A general point made in this literature is that discussion between potential partners could resolve pre-existing doubts about cooperation, considerably increasing the possibility that two interlocutors would end up agreeing and then refrain from defecting in the pursuit of a common task (Bicchieri 2006; Elster 2009; Guala 2012). However, a fairly trivial anthropological rejoinder would be that discussion could also run against the possibility of cooperation. Well-intentioned individuals could indeed see their cooperative élan arrested by an ambiguous use of language. What should I do if the person I am trying to work with is making a conscious effort to hide her own future actions?

That is to say that discussion can turn out to be less clarifying than expected, rather looking much more like a game (Bourdieu 1977). Acknowledging that one's interlocutor maintains certain expectations about one allows one to anticipate the interlocutor's next move. Controlling for other people's expectations makes one capable of directing their behaviour or dissuading them from expecting something from oneself, as in the vignette at the beginning of this section. Here, language plays an important part. For one thing, expectations are usually unvoiced, and to study them ethnographically one should ground the analysis on what it is actually being said. Secondly, language is the tool by which these expectations can be confirmed or negated. Language can be manipulative, and interaction strategic. In China, the practice of gift giving and face-saving communication have often been described as honing such a manipulative attitude (Yan 1996:75; Yang 1994: 52-65), making of spoken interaction a moment of (implicit) competition rather than one of cooperation.

If we assume that “communication can certainly improve coordination” (Guala 2012: 3), what needs to be explained are instances where communication demotes it. In face-to-face

interaction, a cooperative request can be discouraged through the employment of a purposefully ambiguous communicative style. Ambiguity could be used to disprove expected cooperation in that “hinted communication is deniable communication” (Goffman 2011 [1967]: 30). Goffman refers to this kind of interaction when ambiguity is employed to redefine the purpose of communication as “expression games”: a type of interaction which involves concealment and misrepresentation (1969: 15-33).

Purposeful ambiguity could be used to engender doubts as to whether expectations about the interlocutor's intentions will be confirmed and to discourage further cooperative attempts while preserving face. If Goffman had to describe Secretary Yun’s reply to the farmers' delegation, he would perhaps have explained it in terms of the quality of the disavowal. The conditionality of the statement – you should know why nobody is helping you – affords two things: avoiding formal commitment with the farmers, and avoiding explanations as to why commitment is not provided. If this kind of interaction becomes routinised, as in the case of my field site, expectations could gradually turn to an uncooperative outcome when looking for someone's help.

Making space for the subversion of expected cooperation, however, gives way to another question. Were so many of my Chinese interlocutors convinced that others were unlikely to cooperate on common projects with them (despite evidence to the contrary, as we have seen in all previous chapters) because of the language they used? My contention is that, in my field site, ambiguous communication signposts more complex, historically and socially thick issues with cooperation that go beyond language. It is because people remain suspicious of any sincere engagement with “the other” – that is because they consider the act of associating with them either remote, signalling a fraud, or doomed to fail – that they resort to a convoluted language or give up on the possibility of genuine communication altogether. According to my own informants, these feelings and expectations originate from past and more recent historical events that have had an impact on how people feel towards the possibility of getting along with others and working effectively with them.

Part II

Past Memories and the Present Fuelling of Ambiguity

One of the first scholars to detect in China the type of ambiguous communication I am pointing at in this chapter (and its damaging effects on individuals' prospect of embarking on common projects) was Ann Anagnost, who wrote about the changing perceptions of the proper pathway to wealth in the post-socialist Chinese countryside. Referring to the discursive twist in post-reform China, when suddenly getting rich became morally acceptable and equality of conditions started to be seen as a token of a small-holding, backward society, Anagnost has stressed how this policy reversal generated ambiguity in the moral horizon of farmers' communities. Under the commune system, wealth was viewed with suspicion, as exploitation of other people's labour was thought to be the dark economic force which lurked behind it. Therefore, such a reversal, one that prized public wealth through the heightened visibility given to affluent households by means of administrative labelling such as “model household”, could not help but engender ambiguity as to what one was expected to achieve in the economic realm (Anagnost 1989:218-9). Here ambiguity lies in the fact that official stimuli of the accumulation of wealth and consumption of market goods could unleash feelings of envy into a community and thereby engender antagonism among villagers.

To understand the particular type of ambiguity I detected in my field site – one crystallised in styles of communication but above all regarding confusion over the possibility of cooperating with others – it is crucial to understand how local histories have come to frame present-day interactions. China is a country that, in the last sixty years, has seen appalling levels of violence and distress being unleashed upon its people. In northern Yunnan, the decade between 1955 and 1965 was particularly dramatic, due to the ferocity with which the Great Leap Forward campaign (GLF) was carried out (see Mueggler 2001, 2007: 67; Zhu 2003; Zhun 2013)⁸⁷. In Crooked Cart Township, however, many were eager to show reconciliation with that particular history. The GLF had been dramatic, yet without the mobilisation of people it accomplished, Crooked Cart Township would not exist, as this particular area started to be massively occupied by Han farmers coming from different part of the south-west of China with the forced relocation arranged under Mao's campaign. “We owe it all to Mao: the bad and the good” is what I was once told by the man responsible for running the eponymous GLF reservoir.

⁸⁷ In a minority area such as Yunnan, the GLF was comparably even more dramatic because of the effects on cultural differences produced by the mass migration of Han workers involved in infrastructural projects. See Perry 2011: 44.

In my field, what did produce ambiguity about the possibility of cooperation was the consequence of other socialist-period campaigns: the collectivisation and the decollectivisation of the countryside. Under these campaigns, peasants first experienced compulsory proximity and cooperation with others (Friedman, Pickowicz, Selden 1991: 185-213; Pickowicz 2007: 25) and then, abruptly, the dismantling of the old society and the return to the household (or the lineage) as the centre of production and sociality (Potter, Potter 1990: 257-60). Writing about memories of the collectivisation, both Elen Siu and Gregory Ruf have registered varying degrees of enthusiasm for such policies. In particular, they have emphasised issues of trust and group cooperation from their outset. Poor peasants were sceptical about joining cooperatives, as they did not trust government bureaucracy and the remuneration offered for pooling resources with others (Siu 1989: 158) and suffered bitterly from inter-family conflicts over cooperation in agriculture (Ruf 2001: 97).

Decollectivisation has equally been investigated (Riskin 1987: 299-311; Flower, Leonard 1998; Gao 1999; Brandtstädter 2003; Yan 2003, 2009b; Hann 2009). Here it is important to note that, arguably, the loss of certainty about cooperative relations is not solely inspired by the dramatic shift in the political complexion of the Party's intervention in society. Rather the swiftness of the reversal from decollectivisation to collectivisation has conjured an irresolvable ambiguity into the present. Some scholars of China have understood this double-rupture in property, and thereby in social relations (Hann 1998:3), as having a profound effect on how people in China currently feel about social norms and bind themselves by new ones (Thireau, Hua 1998, 2001; Feuchtwang 2000, 2003).

During interviews, recollecting the past with various villagers, government workers or political leaders became an exercise in reconciliation. Here also, divisiveness in the community was rooted in collectivisation as well as in decollectivisation. Looking with an historically informed eye at the present made many detect ambiguity over whether past or present behaviours had alienated the capacity of understanding others' intentions. One day Mr Ning, a part-time farmer, part-time taxi driver married into a Crooked Cart City family, gave me a verbose lecture about the legacy of collectivisation, abridged here:

I tell you something that is typical of China (*zhongguo de tezheng*). Land is well managed by one man, spoiled by two (*yi ge ren guandi zuihao, liang ge buhao*). Chinese men love to

do things by themselves, they do not trust cooperation (*hezuo bu xing*). A reason for that could be what happened under communism. I think it would be reasonable to say that many are now disillusioned by working together (*jiti*). During that period, when agriculture was collectivised, the people were starving (*chi bu bao*). Working together meant not being able to produce enough food for everyone, people quarrelled over small things, even on where to put manure, because anyone wanted to have access to that particular piece of land on which fertilisers were used [...] Nowadays China is a “chaotic” (*luan*) place. [...] The Chinese attitude today is selfish (*zisi*). As they say: “Let every man sweep the snow from before his own doors and not trouble himself about the frost on his neighbour's tiles” (*geren zisao menqianxue, moguan taren washangshuang*) right? [...] I can't say where China is heading, it is just difficult to fathom (*zhuomobuding*).

For Mr Ning, as a consequence of decollectivisation, China has become a “chaotic” and “selfish” place where the common good is no one's concern. In his words, the country's future appears to be clouded by a succession of state-driven attempts to eradicate Chinese malaise at the root. The result has been quite the opposite of that intended: more selfishness. What preoccupies Ning the most is what he sees as an inherent contradiction of present day Chinese society – the “chaotic” nature of a society made of selfish individuals bridled only in theory by a cock-eyed collective ideology, a state parasitised by unscrupulous individuals driven by a profit-seeking mentality. A generational gap is being widened by a market for leisure, devoid of any preoccupation for the nation's inscrutable future.

Mr Ning is here giving me a selection of what should count as compelling evidence of the current state of contemporary, “uncooperative” Chinese society. Present-day society is full of contradictions because the past failed to give clear directions for the future. Farmers failed to cooperate during collectivisation because the state imposed unrealistic targets of agricultural production on farmers, thereby pitting one farmer against the other. However, the way in which collectivisation ended is also early proof of a supposed Chinese aversion to associating beyond the kin group; Ning's reproach evoking Fei Xiaotong's famous description – literally word for word – of deeply-rooted Chinese selfishness (Fei 1992: 60). Present day expectations are thus put on the unlikelihood of forward-looking cooperation. Past memories simply suggests that nothing good should be expected in situations where the help of fellow villagers is sought.

How a Peasant Reasons

Susanne Brandtstädter is one scholar attentive to the ambivalence of the present engaged through the past. In her fieldwork in south-eastern China, fifteen years after decollectivisation many felt that the values they had lived by had now been turned upside down (2009: 146-56). The “Post-Mao value anxiety” Brandtstädter describes, where in purchasing market goods as well as in thinking about social relations, people try hard to distinguish what is fake from what it is not, is indeed a space where much labour is put into creating unambiguous relations with others. Conversely, Chinese scholars hold apparently discomfoting views about whether today's rural society could be effectively seen as generating a meaningful sense of belonging and participation. Chen Baifeng has talked of the “collapse of peasants' value-world” (2008: 41), Liu Xin of the lack of a sense of communality (2000: 182) and Yan Yunxiang of the dismantling of the old moral order and of the rising of utilitarian individualism (2009a: 289; 2009b).

Secretary L gave me a particular take on the meaning of decollectivisation for present-day rural society. One time at the Bamboo Forest Mouth's (BFM) Village Committee, I was discussing his youngest son with him. His son had recently been involved in an accident of sort. Being the local representative of a private agribusiness company, he had to collect vegetables directly from farming households. This is a work of coordination: on a specified date, all the households involved send a member, usually a woman, to meet the representative who is in charge of collecting the goods and making the corresponding payments to farmers. One such meeting was held few days before my discussion with Secretary L. His son got really upset with an old woman for some, obscure reason. The woman's son, present at the scene and keen to vindicate his mother's reputation, verbally assaulted the Secretary's son, saying he was despotic (*ducai*) and bossy. Feeling insulted, the Secretary's son lost his temper and attacked the young man. After beating him to the ground, he left in anger, throwing in the air the money he was supposed to give to the farmers, and saying he did not give money for charity. Later in a tape-recorded interview, Secretary L commented on such behaviour:

I come from a large family. I have seven older siblings and I know what it means to be “from the countryside” (*xiangtu*). Nowadays is quite simple to open a business (*zuoshi*, *zuoshiye*).

In the city, migrant workers (*dagong*) are making thousands of *yuan* a day. Young people are now used to this market society (*shichang shehui*) [...] You can think of my son as an example. He's employed by a company, the pay for such positions (*gongzi*) is enormous. For few months of work in the countryside he made 20,000 *yuan*. He made so much money that he finds it difficult to understand how it is that the people who he is working with will hardly make that kind of money, not even in an entire life of labour (*zai tamen de shenghuo zhong de bu dao*) [...] But this I tell you is not real work, this money is not truly deserved (*pei bu shang*). To make money is easy in our world. I still remember when I was young, at the beginning of the '80s when we still had the collective (*jiti*) and all of us were employed in huge fields under the production brigade (*dadui*). Back then just about fifty per cent of what you make you'd give to the State, the other fifty would be equally divided among all the families belonging to the brigade. What we had was nothing. Grain was in such shortage that we hadn't enough even for the morning noodles. We resorted to using different types of grass (*qita cao*) to make noodles. Eating those things gave me stomach pain and nausea all the times. But this very experience, having gone through all of this, prepared me for the unexpected (*yiwai*). If I wasn't to be re-elected, if I ever had to leave this place, going to the city and open up a business does not scare me. I know that I could do it. My son instead, his kind, they wouldn't withstand one day in my place. You know why? They are from the eighties (*bashihou*), their generation knows how to do business, but they do not understand (*lijie*) the countryside (*nongcun shehui*). He cannot possibly envisage how a peasant reasons (*nongmin de kanfa*).

Party Secretary L was telling me something specific: that the mentality developed under the collective era and the one which followed were now mutually unintelligible, to the point that you could hardly expect support, care and cooperation from the young to the old. Many commentators on China have already noted that the current generation of young Chinese, spared from utter poverty, deprivation and collective madness by the accomplishments of the country's unprecedented economic growth, are considered "spoiled" by their parents and grandparents (Jun 2000; Fong 2004). However, at issue here was not merely a crude difference in age, but a more nuanced and sociologically more articulated critique of the stratification of the contemporary Chinese rural society engendered by decollectivisation. Secretary L's son does not just fail to understand others because is young, but also because he is rich and urbanised. Secretary L's words do a good job of suggesting how difficult it would be for him to envisage his son helping and cooperating with poorer individuals "from the countryside".

In the preceding two parts, I have tried to show how past memories colour the understanding of the society my informants live in and the ambiguous speech habits employed by some of them. I should now qualify this statement with three further points. First, that a narrative about the progression from collectivisation to decollectivisation is taken to represent a Chinese predisposition towards failing at cooperation. Second, that this narrative has bearing on a specific set of questions about other people's availability to establish new, stable relationships consisting of mutual understanding and feelings of reciprocal obligation. And third, that the ambiguity over other people's positioning in relation to self is not neutral but biased, that is skewed towards expecting non-cooperative behaviours, frauds, or at worst, manipulative habits and duplicity.

However, this historically and socially informed expectation of the worst does not merely produce cynicism or defeatism, nor is it enough to convince Crooked Cart dwellers that public engagement, commentary or critique are to be abandoned altogether (see Basso 1972; Steinmüller 2014). Surrounded by the incongruities of modern Chinese society, people in Crooked Cart take an active part in re-envisioning the possibility of shared projects and factual cooperation. In what remains of this chapter, I will give ethnographic examples supporting this claim coming from the practice of managing water.

Part III

Imagining cooperation in speech

During fieldwork, I often attended official meetings held at the Water Bureau's canteen. Inaugural luncheons or dinners signalling the sealing of agreements between local authorities, politicians, businessmen and technicians, could be seen as ideal settings for studying issues of cooperation, or so I thought whenever I was invited to such occasions. Only, understanding what specific agreement or newly established partnership was being celebrated always proved to be an overwhelmingly complex task. Fuelled by alcohol, diners would in fact very soon leave their seats at the common table and start sharing private toasts and chats with one another. No matter how many times I would repeat my observations, following all the conversations at once always proved impossible. However,

there was one single sentence proffered during most of these one-to-one conversations that could pool all the conversations together according to a common theme: “Let's work together” (*yiqi hezuo ba*).

As we have seen before, people in Crooked Cart were generally depicted as unwilling to embark on collective projects with others, whatever they might be. Similarly, interactions in the workplace were equally seen as fraught with contradictions and ambiguities. Take the case of my principal field site, the Water Service Building (WSB): both the WB and the WEO were institutions where competition was being forcefully introduced. Every year the WSB personnel had to attend an official prefecture-level examination on Party ideology or hydro-engineering. People would be mixed with other workers from different WSBs in the same prefecture and evaluated against the performance of their peers. Scoring under 60% could lead to a secondary oral examination or to the justified dismissal of the worker. Moreover, the positions available inside both offices were facing cuts, as harder constraints on budget were being imposed by the local government (see Chapter 3).

Figure 13: The Water Bureau office



Even if co-workers did try to establish a cordial working environment, few knew each another for longer than a couple of years, as the youngest approached the job merely as the first step of their future career. Moreover, the lingering feeling that meritocracy was tempered by unaccountable top-down co-optation, based on personal taste or hard-nosed commitment to the Party line, made everyone suspicious or at least cynical about a government career. Thus, the WSB staff expected little from one another, considering the workplace nothing more than a “backward” village compound they needed to spend some time in, so as to get paid.

Shao Zhi is a good example of an official with this attitude, who shows how the workplace was ordinarily tinted by underlying competitiveness and by the lack of a sense of collective mission. Having graduated in water resource management and electrical engineering (*shuli dianli*) from a technical college (*dazhuan*) in Kunming, Shao started working in Crooked Cart Township in 2001. Like many others, he was transferred (*bei diaodong*) from another office, and commenced working at the WEO in 2005. Originally from Huize, a bigger, historically richer city, he mildly despised Crooked Cart, a backward farming community. He refrained from even bringing his wife and his four-year-old son to the countryside as others had done, preferring to drive back every weekend to his home town, where his family still resided. Shao worked slowly for a few hours a day. When maintenance of the drinking water supply network required getting dirty and seriously sweaty, he typically stood aside, smoking cigarettes in silence. Fees collection was not his cup of tea, either. He did not work if it was raining. When he did set out to collect fees, he checked only a few households. Many complained privately about his attitude. His co-workers also noted that while he was so passive in the workplace he seemed to be very reactive to any of Mr Yong's demands. He drove him to meetings, booked karaoke rooms and pandered to his mid-night gambling craze.

After months, a rumour started spreading that Shao Zhi wanted to befriend Mr Yong, as he knew that any career prospects would pass through him. At one point, colleagues started reacting by raising his water fees collection quota and by repeatedly sending him off to the infamous week-long surveillance duty at the local water purifying station. That the office could become a place for cunning social climbers was expected by many of the oldest

members. Mr Fu, a fifty-year-old member of the Water Bureau, usually commented that “one should be satisfied with what one has” (*zhizuzhe changle*) when asked about how he felt about the changing *danwei*. More ironically, glossing on Shao's performance on the workplace he once said: “It is now time for the younger ones to shine (*gangweishang faguangfaliang*)”.

Yet, to function at all, the Water Bureau had to be able to produce cooperative relations among its members, to prevent the failure of its institutional missions. To understand how this happened, we should return to one of the luncheons I mentioned at the beginning of this section. During these events, a celebratory speech was usually delivered prior to eating. At the beginning of many of these, the appointed speaker would feel compelled to emphasise unity of efforts and commonality of visions. Little space was reserved for the praise of individual achievements. Instead, what mattered was to underline – one would say in bad faith – the achievements of the collective as such. One important aspect of the delivery of a successful speech however, rested with the audience, who in this case were usually highly sceptical. For instance, one particular member of the county-level Water Bureau, a highly positioned official, who was usually invited to Crooked Cart in his official capacity, was said to sound “empty” (*xuhua*) and privately accused of “exaggerating” (*zhushui*, literally, “to dilute”) all his anecdotes. On rare occasions, however, the feeling of being part of something greater than oneself, and that cooperation could lead to great and important results was indeed produced in the audience. Enter Mr. Pu, its skilful architect.

A few days before I had to leave Crooked Cart Township for good, a banquet was organised in my honour. Coincidentally, Mr Pu was visiting the *danwei*. The day before, the county-level Water Bureau had decided to invest (*touzi*) heavily in the township's water services for the following year. This was something everyone at the Water Bureau had longed for, over the entire year (see Chapter 3). We had to celebrate the result. At a certain point in our meal, Mr Pu requested everyone's attention. He encouraged everyone to avoid what he reckoned to be a superfluous display of deference – prescribed by the situation and including standing up in a circle and toasting *baijiu* glasses in a precise order. Displaying what most considered an unparalleled ability to elicit feelings of closeness, care and sympathy from his audience, Mr Pu said:

Together this year we have done something great. All the parameters suggest that another year of drought has been coped with safely. Farmers managed to get their paddies filled, and this thanks to us, to all of us. We truly are an “advanced unit” (*xianjin jiti*) down here. But you know what I want to say to you? All this talking about achievements, economic parameters and the like does not befit a meal between brothers (*xiongdi, dixiong de yidufan*). Among family (*laobiao*)⁸⁸ you do not discuss such issues, we do not evaluate success but we stay relaxed (*fangsong*). We ask how others get along, we mind whether they are doing fine or not. And this is what we truly are: family. Actually we are not even family. I said we are not co-workers (*tongban*), there's no boss among us. But we are not even family, there's no household head (*dangjia*) either. We are friends, that's all. When you got here, Andrea, I remember how clumsily you offered me two cigarette cartons! You certainly knew Chinese culture already then, but you ignored Chinese people! Better, you ignored how Huize people are. It was excessive and I still think so, we are friends (*pengyoumen*).

After his speech ended, Mr Pu incited anyone to drink, but again to avoid formality (*suibian he*). Through the progressive demarcation of different circles of intimacy, Mr Pu eliminated formality and made the ambiguity implicit in the ordinary life of the workplace working towards an explicit objective, envisaging a group tempered in cooperative and purposeful labour. The people sitting at the table with Mr Pu – myself included – could not help but shed some tears, and to stare into each other's eyes in telling silence.

How did Mr Pu's speech come to be taken so positively? Perhaps because with him, ambiguity about cooperation and disguised competition among different individuals in the workplace were surpassed by the notion that, through cooperation, individuals can achieve a more perfect unity. Mr Pu's speech could then be interpreted as an attempt to accommodate people into thinking that, while the workplace is indeed ridden with competition and strivings for self-realisation, it is also a place where something important is accomplished together. Water arrives at Crooked Cart and is delivered to its people because of the group, and this had to be something anyone should be proud of. Stewarding water is not only a service the state provides to its citizens – Mr Pu hinted to his audience – it is also a project whereby friendship and feelings of belonging to a group are created.

This is not to say that the type of community imagined in Mr Pu's speech is one between

88 Note that *laobiao* is not exactly family, but rather “affines” (mother's or father's sisters' side). It could also be used metaphorically to indicate a peer from the same cohort. In Pu's speech it is employed to distinguish between an affiliation which is still based on “blood” with one based on “labour”.

peers, that it is acephalous. The one who was constantly served with *baijiu* and cigarettes, the one who got all the attention and care was still Mr Pu, the real “boss” among them, who was sometimes referred to as the “Dragon King” (*longwang*), the mythological divinity who presided over moving bodies of water, rainfall, rivers and thereby the destiny of many farming communities. To the members of the Water Service Building, Pu's “imagined community” could have appeared as a temporary overturning of their expectations towards office life, an outweighing of the well to familiar feeling of competing individualities in favour of a place for collective achievements.

The Redistribution of Water as a Product of Cooperation Between Individuals

Up to this point, we have discussed how in my field site people inherit a history of suspicion and division, re-enact this history in speech habits and rarely go about solving the ambiguity this habit generates within social life. Most of the time people feel anxious about understanding where affiliation rests, about the conditions upon which to associate with others. They also try to make room for individual projects of self-realisation and resort to using others to achieve personal goals. The low expectation many feel toward the possibility of embarking on collective enterprises, i.e. of cooperation, results in a perceptible sense of isolation, when not in intentional self-segregation.

Old Z, the oldest member of the Water Bureau and the Crooked Cart Township's Water Chief under the commune system, was being explicitly marginalised by his colleagues, for his obstinacy in keeping with an humble style (*pusu*) in clothing, “thought” (*sixiang*) and for the kind of people he chose to associate with, most of them poor farmers. Female members of the Bureau badmouthed him because he bought “cheap” and dressed in rags (*mopo*). Male members constantly reminded him that he was retired (*tuixiuzhe*), and that he did not need to come to the office every day. However, his isolation was also self-imposed: Old Z, now in his fifties, spent most of his time alone, or with a female cousin who lived in a nearby village. Part of the reason he had for distancing himself from his social circle was linked to his personal history with managing water in the community: he simply could not accept the reform undergone by water management after 1985. This he described as a shift from a system run by farmers (*nong qilai jiti guanli*) to one run by the economy (*jingji guanli*). The reform was designed to allocate labour more efficiently (*tiao laoli*), but it resulted in the disenfranchising of farmers and the dispossession of

collectively owned infrastructures. One of them was a five-century old canal for drinking water that was destroyed by the excessive amount of water released into it through government malpractice.

Now, the Water Bureau had “the people at the core” (*yi ren wei ben*)⁸⁹ as he was constantly reminded during the many banquets we attended together, and yet whatever the government did it ended up taking away the power to decide over common resources from the people. Old Z said to me once: “The Great Leap Forward was the demonstration that manpower (*rengong*), that men together could achieve many things. Then it was decided that the government should be running the country alone. Well, but now at the village level there's no control whatsoever (*cunshang buguan*). Few things are well managed: water cellars, water cisterns, small waste channels — these are made, used, governed by the people (*laobaixing*). [...] It is only because of that that we achieve factual security in drinking water supply. Once we had vertical control but horizontal government (*shangfen de jian, qufen de guan*), now control is easy, government less so”. Old Z’s primary source of ambiguity was that he had to conduct himself every day showing commitment and dedication to state water provisions, while being convinced that it was not quite enough.

However, my fieldwork has also shown me instances of fair and stable cooperation. These were moments when low expectations were actually turned into a sense of belonging and obligations towards fellow villagers. The management of water, as I shall explain in a moment, is conducive to such reversal. The literature on post-socialist societies has often referred to the longing for a specific sense of community, of sociability, which survived among the citizens of ex-socialist countries after the demise of the socialist state project (Humphrey 2002: 169; Brandtstädter 2003: 437, Hann 2003: 26-9; Svašek 2006: 12; Dunn 2004: 119-25; Todorova 2010: 7). In these countries, forms of intimate associations in the workplace and in mass mobilisation have left a deep trace on people's sentiments towards human relations and collective achievements. While fraught with ambivalence and often imposed through coercion – one has only to recall Mr Ning's analysis above – the practice of forging a new type of man via collective labour proved to be an endeavour with long-lasting consequences. In some post-socialist countries, the memories of the socialist era,

89 This motto has been enshrined in the Hu-Wen administration's public agenda since 2003. In 2007, it was formalised with Hu's political report at the 17th Party Congress. See “Hu Jintao zai Dang de Shiqi Da shang de Baogao” [Hu Jintao's political report at the 17th Party Congress], Xinhuanet, 24 October 2007.

along with the sentiments attached to it, are imbued into the material legacy of that period. As Old Z noticed, and as Féux de la Croix has found in Kyrgyzstan (2010a, 2010b), water management infrastructures, such as dams or canals, could be part of this surviving legacy of factual cooperation⁹⁰. In my field site water management, that is ponds, wells, moving or stored bodies of water accessed jointly by different users, is the recipient of a history of effort and investment for the common good, i.e. recipient of cooperation.

One of the first things I noticed when I arrived in Crooked Cart City was that many rural houses had a well in their proximity. Round or octagonal in shape, these wells were all made of stone and were usually covered by a metal lid surmounted by a heavy stone. In order to get water from them, one had only to lift the lid: water would be found aplenty, a few centimetres underground. Twice a week I would have a walk on the unpaved road departing southward from the Water Bureau. This road crossed many maize fields and farmyards. No day passed without me seeing some farmers taking water out of these wells, unrestrainedly. “You can have it at will (*suiyi nashui*),” farmers would say to me, annoyed as though I were asking the obvious. Well-water was generally used in the households for drinking, cleaning and cooking. Some villagers used it for their own cattle. Others would take it and use it on the spot to clean fruit, vegetables or their own body and working tools. The practice of supplying water through wells was totally and utterly a second-tier distribution network. Throughout rural China, the increased reliance on groundwater has recently brought the government to tighten the regulation over its use (Wang et al. 2007: 52). In the north, it has been reported that a privatised groundwater market is an emerging phenomenon (Wang et al. 2005, 2006; Li et al. 2007). Yet, in Crooked Cart, the WB refused to intervene in this respect because this second-tier network filled in the gaps of state water provision, making the local government appear to outsiders more successful than it actually was.

90 On the contrary, unbearable memories of punitive back-breaking toil, could be present in China. See for instance the discussion in Friedman, Pickowicz, Selden, where they report how water conservancy projects were also carried out by many young men with “political problems” dragooned into forced labour (2005: 72-4).

Figure 14: A groundwater well



Figure 15: The great sluice gate of Crooked Cart, built under Mao

For the present discussion, the peculiarity of using well water are two: it was in competition with the drinking water supply provided by the state and its use was completely unregulated. It is important to clarify that while the act of appropriating well water, locally known by the term *tiaoshui* (meaning to carry water with a carrying pole), looked unquestionably related to individual needs, and sometimes casual to the point of seeming random, this was not how the local people saw it. The practice of constructing and using well water was both practised as a form of close stewardship of the local water resource, as it involved individual or collective upkeep of the well and its protection from subsidence, infiltration and animal waste pollution (cfr. Kendy et al. 2004), and as resistance towards state-driven projects which imposed top-down choices over water use.

Wells are built individually or jointly by families in the area at a cost of 500-600 *renminbi*. Building one takes a matter of hours, but water can be then drawn for at least ten years before running out. Octagonal wells usually have engraved on one face the year of completion and the names of the families who partook in its construction. Official documents recorded 970 wells in the Crooked Cart's Township⁹¹ for a population of slightly more than 96,000, although farmers claimed that in the area one could find one well for every ten households, so that “It’s easier collecting water if one is in need”. Unlike to the state-sponsored drinking water network, which suffered continuous disruptions to its service, gaining access to wells was unrestrained and on a purely individual basis.

Wells could be held privately (*siyou de*, *siyong de*) but were always used jointly (*gongyong de*). During a survey carried out by me and two assistants among thirty farmers' households, the respondents stressed that well water was used in common with no right to exclude others from its use: “If you need water you could come and take it. There's no payment involved (*mianfei de*)”. The privately constructed wells open to joint use was the most common arrangement for water supply in Crooked Cart. Some villages had “collective” (*jiti*) wells that differed from others primarily because of their size and shape, which allowed clothes washing on the side. The difference between collective and private wells is an important albeit subtle one: with a private well, usually found within one family's courtyard, to access water would require the (always tacit) consent of the owner. In practical terms, this consent was understood as the owner's obligation to give (*zeren*), rather than the drawer's right to withdraw (see Lamouroux, Dong 2011: 55-7 for a different

91 Crooked Cart Township Water Bureau, 2011, *Quanguo Shuli Pucha* [National Water Survey].

interpretation). This is proved by the resistance with which the introduction of a right to free drinking water, was met by the population.

This “right” (*yongshuiquan*) which assured 12 m³ of water per month free of charge to every household – as long as it was connected to the delivery network – was rejected as an “abstraction” (*chouxiang*), difficult to understand (*nan lijie de*) and also as something “ambiguous” (*huise*, lit. “grey”). An elder respondent suggested this interpretation: “They are not even able to give me water when I could pay for it; imagine what they can do with free-of-charge water! Certainly it seems an ambiguous service (*huise fuwu*)”, implying that if water would really come for free, something bad should be expected from the government in response.

While one could imagine the act of privately obtaining water, and the consequences of this practice on government-run services as detrimental to the public good – many families did not pay water fees at all, precisely because their drinking water intake came exclusively from the various wells in the area – villagers thought of it as a token of their ability to bind others into resource-sharing communities, despite the government. Underpinning this community of sharers were past agreements about pooling together the labour and the materials needed to excavate wells, and present-day practices that kept the agreements alive, providing access to anyone.

The type of community envisaged by this practice, evidently Maussian in type⁹², was one in striking contrast with the drinking service the state offered villagers. The latter was a contractual relationship between the state and the household, objectified in a fees' registration booklet (*yongshuihu jiaofei shouce*) which made the state legally responsible for upholding the right to a minimum amount of water and the household for the upkeep of its own supply, as seen in Part I of this chapter. The former was at once more individualised and more communal a practice: water is accessed according to one's need, and reciprocated to the community of sharers as a whole by allowing anyone to take water from individually owned wells. A community is thus sustained by daily cooperation and reciprocity.

92 In particular, this type of community seems to be threaded with relations of what Marcel Mauss called “individualistic communism” (quoted in Graeber 2009: 114), that is relations where help is given out without keeping account of it, on the assumption that the other would do the same.

Why would villagers need such a widely cast net of reciprocity for securing drinking water if the government had in 2002 created an office, the Water Engineer Office, precisely for doing that? Part of the reason lies in one of the many development projects carried out in Crooked Cart during the 1980s. For my informants, before the construction of the local hydroelectric station in the eighties, drinking water abounded. Then half of the village was cut off the scheme, as one particular canal, which was realised by volunteers (*tougong toulao*) in 1971 and used to bring water to the western side of BMF Village, was damned and diverted to produce electricity.

The superimposition of development goals over what farmers perceived as the non-negotiable need for drinking water was greeted by the community with astonishment. Dr Rong, who we encountered at the beginning of this chapter, told me the following story. Once the hydroelectric station was completed, 80% of the people in the community were suddenly no longer able to access water. The fields were running dry as the canal was also used for irrigation and electricity bills started eroding the savings of the poorest. “We *laobaixing* did not have a place to make our voice heard, nowhere to give our version of the facts (*you hua wuchu shuo, you yan wuchu shen*). The government instead, everything they said was to mislead us, whatever they said was just empty talking and falsehood (*xukong jiebao, nongxu zuojia*). That's why we do it on our own now”.

The government, in many villagers' opinion, had deprived farmers of water that was legitimately theirs. That deprivation came in a particularly damaging form: an infrastructure which was the material accomplishment of a collective effort to provide water to every household in the community was seized by the government and put at the service of different goals, none of which were supported by or even discussed with the villagers. Villagers reacted by drilling their own wells, sharing their own resource, thereby creating a community of sharers which has clearly defined obligations. Not that water distribution could not bring conflicts into being: higher catchment and lower catchment villages did find themselves disputing how much water the former had “stolen” from the latter. These incidents were primarily about irrigation water, a task that was firmly in the hand of various government offices and which was often seen as a territory for testing one's “connections” (*la guanxi*). The better one was connected to officials, the more easily one could ask to extend the amount of time one's village could get irrigation for paddies or hasten delivery.

Interruptions in irrigation water from one specific field to another within the same village were, according to farmers, actually rare. Even more so, because when water from the state-subsidised lateral channel reached the many terraces in the area, it was entirely up to farmers to design the pattern water took from the entry to the exit point. Cooperation to make irrigation possible – in terraced agriculture water should flow from one paddy to the next if all fields are to be watered – was successfully accomplished by Crooked Cart's farmers. Villagers were incredibly involved in water management⁹³, and their involvement was substantially rooted in a web of relationships and infrastructures which had at their core the circulation of water. In the context of water sharing, expectations of failed cooperation were turned into stable, unambiguous instances of factual cooperation.

Conclusions

This chapter started from a recognition that day-to-day interactions in the Chinese countryside are fraught with ambiguities as to what is being communicated. I subsequently moved to argue that what could be easily glossed over as just one of the many ways in which speech is used, it is best understood as the consequence of the historical dismantling of trust and cooperation. In doing so, my attention was diverted from issues of communication towards questions about cooperation and relevant obligations in a context where shared goals and common intentions appear to be amiss. This is above all a context where adequate subsistence is still a problem for many. People in Crooked Cart are thereby confronted with the problem of how to bring about prosperity, that is by taking which measure to seize it. To do that, one has to make sure that the commitment of other people is genuine and cooperation is possible. However, there are many reasons to believe that the contrary – being defrauded and used – could be more likely. The trajectory of collectivisation-to-decollectivisation, as well as the reality of the workplace, prove to many that they are right in being suspicious.

93 Crooked Cart Township Water Bureau's data shows that between September 2011 and April 2012 farmers' households contribute privately (*minyong*) to the Township water sector's investment an amount of 3.5 million *renminbi* (567,000 US dollars), which equals 2.4% of the total investment in water infrastructure for that period. Respectively the Central Government invested almost 77 million, the Province 31 million, the City 10 million and the Township Government (*qunzhong*) almost 15 million. The sum invested by farmers is not part of the irrigation water fees farmers pay according to the amount of irrigated land they work, but an independent, unwarranted investment in the water service on the farmers' part. Huize County Government, August 2011, 10/11 *Niandu Nongtian Shuili Jiben Jianshe Touru, Wancheng Gongcheng, Xiaoyi yu Shangnian Tongqi Duibiao Jiu* [A Comparison of Basic Infrastructural Investments, Completed Infrastructural Projects and Productivity in the Water Sector for the period 2010-2011].

My interest lay therefore in contrasting a contentious history with instances of group formations, very much alive among lay citizens as well as government workers, to show where ambiguity resides and what is done to resolve it. Cogent arguments for accommodating feelings of anxiety about cooperation are to be found in the circulation of water. Coordination and cooperation between different tiers of the government and among farmers is crucial for the man-made flow of water. When there is great uncertainty over who has to do what, water fails to be directed to those who need it. Yet, sharing and stewarding water turns out to be a practice where divergent interests can be factually recomposed and where the other ceases to be seen as an uncooperative agent and starts to be thought of as a *pengyou* or a *laobaixing*, that is as someone with whom a sense of obligation is maintained, leading to an unambiguous rapport and to the possibility of cooperation.

Being *laobaixing* ceases to simply be a label used by the government to talk about a population of underprivileged individuals, defined by the sum of their unmet needs – as we have seen in the Introduction – to be re-appropriated and turned into a positive force of self-ruling. Drinking water management is *de facto* realised by the “people”, regardless of the presence of the state. In the management of well water as practised by Crooked Cart's villagers, people found a space where it is possible to assert the very possibility of collective achievements, unrestrained by market forces or by centralised regulations. Remarkably, such a collective achievement in a context of ubiquitous mistrust is obtained not through language, but through mute infrastructure, e.g. solid, reliable water wells.

My initial preoccupation with understanding the role of communication in securing cooperative behaviour is, at last, tellingly absent. When language ceases to be effectively employable as a means of coordination and as a booster of cooperation, the surrounding built environment might turn out to be an equally powerful resource for bringing people together. Here I not merely refer to the network of water wells that are accessed privately by water users, but to the wider constellation of water infrastructures that punctuates the Crooked Cart's landscape and that bears mute witness to a history of collective achievements. While the form taken by the collectivisation of Crooked Cart's countryside and its abandonment – a low blow to the Maoist belief in collective effort – has arguably truncated Crooked Cart villagers' capacity to imagine a space for collective enterprises –

the material heritage of that history appears to still be able to ignite feelings of mutuality and solidarity into common villagers, making of water access an elective site for the popular counter-management of village affairs.

Chapter 6

Contentious Properties, Popular Protests and Unmet Obligations in the Yunnanese Countryside

One day in December 2011, I was crossing some paddy fields positioned alongside Crooked Cart Township's main thoroughfare. These fields were covered with a suspiciously iridescent slick, resembling petrol. The sprouting rice plants were rotting beneath it. Suddenly a man, who was walking confidently over a narrow ridge separating two different plots of land, started pointing at me in apparent anger. Getting closer, he bombarded me with questions, his tongue a fast-cadenced rifle. So overwhelmingly agitated was he, it took a while for him to finally realise I was not a local. He then cautioned me about what was going on in Crooked Cart, how petty developers and the local government had forced the former owners of the now swampy plots to undersell the land to a construction company. "Who did this land belong to?" I asked. "To the *laobaixing*. The land is the people's livelihood (*minsheng*). Farmers work the land and *they* sell it before the rice is even ripe. This is why the fields have been flooded, to make it clear to everyone that land is no longer of value in China, that what farmers do is of interest to no one (*tajia dou wusuowei*)".

Later that day, I was invited by Old Brother to spend some time with him at his uncle's place, a tiny outhouse adjoined by a small garden with a pair of persimmon trees (*shizishu*). On the request of his relatives, Old Brother and I began to help with the evening meal, peeling and sun-drying potatoes, and checking the ripeness of persimmons before picking them. At some point, to spice up what was a repetitive task, I casually made reference to my earlier encounter, seeking Old Brother's opinion. "The government is doing with us what I am doing with this persimmon, you see? *Boxue*." Missing the pun, I asked Old Brother to elaborate: "What do you mean by *boxue*?" "Peeling (*boxue*) in Chinese also means 'to exploit', right? As with the old Maoist motto, 'Abolish exploitation and oppression' (*xiaomie boxue yapo*). Taking land from the people is like peeling the persimmon skin: it is taking away what protects the people from being exploited. They call it 'rightful' (*an fagui*), we call it 'exploiting the people' (*boxue renmin*)."

*

With this chapter and the following, I want to move this discussion forward by bringing

into focus one of the aspects that, while on fieldwork, immediately struck me as crucial about issues of rural management and development: their *contentious* nature. Despite the diplomatic veil of deception that had been gently lowered over my eyes by the local government since the first day I arrived in Crooked Cart – keeping a close eye on me, covertly directing my stay so that I would fail to notice the animosity of its daily life – I soon realised that my field site was shot through with popular claims for justice and demands for better treatment. Common people very often complained about one thing: the mismanagement of land and water. To understand why, in a thesis avowedly about water, one of its chapters should be entirely dedicated to land, the reader should first understand that to local people, and especially to farmers, land and water are one and the same thing. Without water, land dries up, becoming unable to produce crops. Without land, farmers lose interest in maintaining the crucial water infrastructure, transforming a countryside reliant on agriculture into a dormitory for urban migrants. According to local dwellers, to continue inhabiting Crooked Cart, its residents would need an effective government of both land and water⁹⁴. This and the following chapter will thus talk about the struggle currently being fought by its own residents to stay in Crooked Cart. In this chapter, the focus will be more on land and on the relationship of Crooked Cart's residents with the local government. The following chapter will deal more with water and with the quasi-legal remedies adopted to protect its access.

Contentious Properties

When Old Brother said that, “taking land from the people is [...] taking away what protects the people from being exploited,” he was emphasising that the relation between the state and its rural population passes through land, or better through the rules that determine whose property land is. This chapter tells the story of how “property relations” – relations between people with respect to things – are gaining relevance in today's China. In Crooked Cart Township, property relations are now the subject of many daily discussions and debates among ordinary people. Often, disenfranchised individuals can resort to public

94 According to Chinese law, all Chinese land and water has an ultimate owner, that is the Chinese state. However, these two resources are governed according to two different bodies of laws, which distribute managerial rights differently. To keep the discussion simple, here I will just make the point that irrigation water rights are linked to land rights in a direct way: farmers enjoying the temporary use of a paddy field (*shuitian*) are automatically eligible, at least formally, for a temporary water use permit (*yongshui xukezheng*). For land law see Pils 2006, for the Water Law see a recent interview with Professor Jia Shaofeng on the *China Water Risk* website (available at <http://chinawaterrisk.org/interviews/water-rights-in-china/>, last access 16/3/2015).

protests against what they see as the misuse of property by the state. In these instances, property relations become a bone of contention between villagers and the local administration. Property relations are also the subject of quasi-legal settlement practices, such as cadres-led mediation. In this chapter, I will give a specific connotation to the term “property relations”: how in present-day rural Yunnan, land and water are subjected to different and often competing sets of claims and regimes of management.

In particular, this chapter explores the tension between two different notions of “property relations”. On the one hand is the notion that land or water are “things” from the use of which some individuals or groups can be excluded in virtue of more or less formal agreements made with other individuals or groups. This notion stresses the fact that one is entitled to take unilateral decisions over land and water use within the limits settled by formal or informal laws. On the other hand is the idea that access to land and water is a product of social relations and that decisions over their use cannot be taken unilaterally, without the interruption of said relations. The former is what I will here term “the rights-based discourse”, the latter the “obligation-based theory of property relations”. The tension between these two different views about property relations is made salient in today's Chinese society as economic development driven by top-down, state-centred planning clashes with local interests vested in land and water, but also inflecting private disputes among kin or co-villagers.

In conjuring this tension, an important role is played by the recent Chinese state codification of property relations in terms of “rights” (*quanli*). The State enjoys “ownership rights” over land and water supply, while the villagers only have “use rights”, thus creating interdependencies between the two (Ho 2005: Ch. 2; Hu 2006: 78; Pils 2014a). In Crooked Cart, the government is now inclined to recur to legal arguments, as opposed to political or cultural ones, to justify its own political economic choices to its citizens. When village land is requisitioned or water infrastructures mismanaged, the state provides legal explanations for such occurrences. The “rights-based discourse” is thus entering the Chinese countryside carrying the heavy load of state-driven dispossession and collective disenfranchisement (see also Chapter 5). Against what they see as an “exploitative” logic, villagers usually adopt a different register to talk about property relations, one resting on the idea that “things” should be consensually used and managed, that is upon prior discussion and agreement with all the parties involved. This latter

position opposes the idea of “rightful management” advanced by the state, i.e. that of obligation. The state needs first to fulfil its role and give something back if it wants to take decisions that might negatively impact the local community.

For this reason, my argument here will be that, rather than looking at the introduction of the rights-based discourse in the Chinese countryside as an exclusively positive development for Chinese citizens living in the poorest parts of the country – as many commentators of China seem to do – attention should be paid to what Chinese citizens really do, and what language they employ to uphold their interests. The ethnographic approach to property relations in the Chinese countryside suggests that rather than taking the law in their own hands to defend their interests, Crooked Cart dwellers prefer to approach flesh-and-bone officials. Local officials can intercede to secure the villagers' interests, redress their grievances and impose compensation. “Use rights” on the other hand, appear to be much less effective in protecting villagers' interests. In fact, “use rights” are perceived to run against the local interests, rather working towards the exclusion of villagers from the management of local goods.

As I will try to show in this chapter, Crooked Cart villagers generally maintain a positive view of the role of the local state officials, a position that many find appealing. Discussing with officials one's own involvement in the management of water or land means being able to set the conversation on the moral obligations that the former have towards the common people. In the view of villagers, rights-based discourse, and legal terminology more generally, work precisely to exclude them from the above scenario, limiting their ability to negotiate with the state and delimiting the province of their political involvement in the public life of their own community. As a way to oppose state intrusion into village affairs and the “unilateralism” of the developmental agenda promoted by the authorities, Crooked Cart dwellers take to the streets and stage public protests against the government. Their claims, however, are not framed in the same language employed by the state to legitimise requisitioning – that is, villagers do not talk of “infringed rights”, but they rather speak of obligations and mutuality, a concept they inherited from local practices of self-government, as Chapter 7 will show, as well as from the older, customary ways of thinking of political relationships, which I discussed in Chapter 4.

To support this argument, this chapter avails itself of various materials arranged as follows:

Part I will set out the theoretical backdrop against which the ethnography in the following section should be cast. Here I first focus on anthropological approaches to property relations, making the case for their cultural variability. I will then move to show how Chinese culture has long maintained a particular understanding of how “things” should be held in common among differently positioned individuals. Finally, I will clarify this chapter’s argument in relation to recent scholarly works on state-society relations and the advent of the “rights age” in China. **Part II** will move to the ethnography. My stay in Crooked Cart Township, and in particular in Bamboo Forest’s Mouth (BMF) Village involved long afternoons spent in the local Village Committee’s Archive, hand-copying the minutes of numerous disputes. From some of the “requests for hearing” (*shenqing*) found there I will first show the contentiousness of property in my field site. Second, I will use substantial excerpts from my field notes to recount the story of how the management of water and land by local officials creates a site for negotiation and establishes expectations of role-fulfilment. It is here that a cultural preference for “office” rather than for “rights” is generated. In **Part III**, I will look at how these expectations break down by telling the stories of two public protests which occurred during fieldwork. These will be used to highlight the resentment many felt toward the law, and how people reflect on the notions of property and entitlements. My interlocutors move their critique to the commodification of land and water tenure in the contemporary Chinese economy from what seems to be a peculiar understanding of property relations, one based on “obligations”, not “rights”.

Part I

The “Opening Up” of Chinese Property Relations

Property relations are about one simple question: “What is the proper relation of people to each other with respect to things?” (Verdery, Humphrey 2004: 5). This is a question that Mao had forcefully answered with the collectivisation of the countryside in the 1950s, but which China has later answered in various other, often ambiguous ways, as I argued in some of the previous chapters. Here, I want to point out that coming up with an answer to this question usually entails answering fundamental questions about how to design an economy and about how to regiment social tensions.

Admittedly, one of the by-products of the prolonged boom of the Chinese economy has

been social unrest (Sun 2009). Perhaps unsurprisingly, “opening up” the socialist commanded economy resulted in fiercer competition over economic assets and profits, but not solely over those. Public objection and organised popular mobilisation targeting the perceived “unfairness” of systems of welfare allocation, the skewed accumulation of wealth in society and the “amorality” of Chinese society have become increasingly common (Yu 2003; Anagnost 2004; Kipnis 2007: 388; Ong, Zhang 2008; Steinmüller 2010: 540; Brandtstädter 2011: 268; Day 2013: Ch2; but see Wright 2010 and Whyte 2011). In line with the politicisation of the economy under Maoism, Chinese citizens have never completely lost the habit of critiquing the *status quo*, asking by what virtue benefits and privileges ought to be and are distributed in their own society (Brandtstädter 2011).

In relation to property claims and arrangements, this principally means that the acquisition and stabilisation of “rights” over land and water in today's China is an ongoing process, one not exclusively regulated by formal legal agreements. Indeed, in my field site, disputes over who had the “right” to work what land, or had access to water via which route and for how long, were issues rarely relegated to the court. Much more often, peaceful and informal solutions to the problem of allocating scarce resources were brought to the fore in conversations between contenders, under the supervision of a middle-man or perhaps with the help of authoritative figures, such as village cadres (see Michelson 2008; Michelson, Read 2011; also Ding 2005). That is to say that property rights in rural Yunnan are far from being a stable, non-negotiable entity.

To notice that “property rights” are constructed in everyday practice and effectively acquired through action – always involving the use of physical and/or symbolic power – is one long-standing contribution of anthropology to the study of property (Verdery, Humphrey 2004; Verdery 2003; Alexander 2004; Mundy, Smith 2007; Strang 2011). The meaning of “rights” is not exhaustively contained in its legal definition, or merely about a static bundle of social relations which structures regimes of obligations and desert (Hann 1998; Hann 2007: 294). Property rights are also about the physical appropriations of goods, the “naturalisation” of positions of privilege which confer managerial powers over specific resources and their consumption, as well as the communicative and practical disputing thereof (Busse, Strang 2011: 4). Property rights can be established “informally” by routinised economic transactions, or more problematically, as the outcome of dispute resolutions.

Yet, there is also another dimension of “property relations” that goes usually under the radar, and this is that property relations may not be framed around the Western concept of “rights” (Strathern 1999: Ch. 7). Indeed, as a historically thick, context-dependent concept, property relations may also be seen as the recipient of a specific history of social relations, one that could harbour a different response to the above question. Insofar as we are probing into the tension between competing notions of property, the meaning that “rights” have come to assume within Chinese culture surely deserves a closer look.

The Obligation-Based Theory of Property Relations

Many scholars have already suggested that the concept of “rights” in China has developed along its own trajectory, conceptually divergent from that of the West (Angle 2002: 206-7). In relation to property rights, Philip Huang has stressed that the possession of property has always been firmly coupled in China with the *obligations* one has towards one’s household or lineage (Huang 2010: 165). As a consequence, no abstract principle of absolute ownership has ever been consolidated in this moral landscape (Huang 2010: 148). Preenboom noted that, in the Western tradition, “the essence of a right is that it protects an individual against the interests of others, including, most importantly, the majority” and that, on the contrary, Chinese legal culture understands rights “as contingent interests rather than as moral principles that stand apart from, and cannot be weighed or balanced against” (Preenboom 1995: 354; 366; also Perry 2009: 46).

In Confucian thought, these “contingent interests” are premised upon the notion that property relations are social relations entertained by differently positioned individuals who maintain mutual *obligations* with one another and whose roles come to be actually defined by these very obligations (Ames 2011: 167-8). Thus, under the Confucian ethos, which has profoundly informed Chinese politics and social thought, property relations are agreements occurring between interdependent social roles. This means two things: firstly, that before one can claim to be entitled to property, one should first fulfil the *obligations* one has towards one’s social circle, that this to fulfil one’s role. Second, a decision over property cannot be taken unilaterally, as a person's rights over property always entails social obligations.

This philosophical point is supported by a great deal of historical evidence. Elsewhere, I have approached historically the notion of rights in land in the Chinese context (Pia 2011). There, the key point made about the concept of property in Qing China is that land and the attached water infrastructures were never fully commoditised. Land sales were usually intended as “conditional”, with use rights relinquished to other users for a period. The lessor usually stayed on the contracted-out land but paid a rent to the new “owner”, to whom the former owed money. Once the debt was extinguished, the lessee was considered in custom to be under the *obligation* to give the land back to the lessor. In turn, the original owner had the *obligation* to pay a land tax to the state, which by levying taxes formally acknowledged the payers as land owners (Palmer 1987).

Fei Xiaotong made a similar point about Republican China. In his ethnographic study of Kaixiangong Village (1939) he describes the existence of a “native theory” of land tenure, one according to which villagers constantly redistribute land use rights among different families, without ever affecting the ultimate ownership, which was considered to be vested in a specific family or lineage (1939: Ch. 11). This concept of ownership was operationalised by household heads who were under the *obligation* to devolve land within their own household (Fei 1939 :182).

Notwithstanding the immense social transformation that China has undergone during the last six decades, land tenure and the property regime now in place in the country could be seen as mirroring, to a great extent, this customary understanding of property relations. The ultimate owner is now the state and the lessee the entire farming population of China⁹⁵. As such, the former holds specific obligations towards the latter. In recent years however, as part of a reform of the Judicial System of the PRC, which I will explore later in Chapter 7, the notions of “individual rights” (*geren renquan*) and that of “right consciousness” (*renquan yishi*) are gaining the floor. China needs to embrace rights – or so goes the standard narrative – as it has embraced new forms of water management, to perform good governance. Only that, as we will see in Part III, local governments now make rhetorical use of the “right-based discourse” to rebut criticism of unpopular land requisitioning and escape the ensuing public outrage. Thus, how are Chinese people living

95 Xi Jinping's administration, coming to power in 2012, is now putting a renewed emphasis on the “rule of law” (*fazhi*) principle and on the protection of individual rights (Brandtstädter 2013: 334-6; Minzner 2013). One reform envisaged in the Third Plenum of the CCP is that farmers will be given property rights over their land. See for instance <http://www.bbc.co.uk/news/world-asia-china-24910434>. Last accessed 30/10/2014.

in the countryside responding to land expropriation? Are they buying into the “rights-based discourse” and reclaiming their land rights or are they still clinging to the idea of concerted management of public assets and of obligations towards village communities?

The Meaning of Property Rights in China

The argument of this chapter is that in Crooked Cart, Chinese citizens still cling to the principles enshrined in the “obligation-based theory of property relations”. As such, this argument should be seen as an integration of recent attempts in political sciences and anthropology at gauging the extent to which the Western concept of the “right-bearing subject” is entering Chinese society and winning its citizens’ hearts and minds (Pei 2000; Zhang 2005; Gallagher 2006; O’Brien, Li 2006; Perry 2008, 2009; Li 2009; Cai 2010; Woo, Gallagher 2011; Brandtstädter 2013; Franceschini 2014). Here I will briefly summarise two aspects of this debate that are germane to this chapter. First, in O’Brien and Li’s account of collective resistance in rural China, the authors propose that the many cases of outright resistance towards local governments happening throughout rural China signal the willingness of Chinese citizens to fight for their “rights” (e.g. for secure land ownership). This is usually taken by much of the scholarship, following O’Brien and Li (Chan, Ngai 2009; Cai 2010; Chen 2013) to mean that Chinese citizens are starting to take rights seriously, meaning that they are beginning to conceptualise themselves as subjects whose rights should not be infringed by an external authority. Translated into this chapter’s terminology and confined to a discussion of the problem of property in the Chinese countryside, this equates to saying that Chinese citizens are adopting the “rights-based discourse”: I work the land, so the land is mine. It simply cannot be taken away from me and I will fight for my rights to it.

However, my findings show a more complicated picture. In this chapter, I show that in Crooked Cart, local villagers maintain an active distrust of legal rights. In particular, villagers are suspicious of the official discourse of property rights and the state’s right to lawful requisition in favour of top-down development. For one thing, it is the state that is actively exploiting the “rights” rhetoric to pursue a unilateral agenda of rural development, one that is not immediately beneficial to, nor discussed with the local communities. Rather, Crooked Cart villagers try to oppose and circumvent the right-based dispossession practised by the state by appealing to an alternative, culturally specific way of thinking of

property relations. This is the notion that the management of land and water establish *obligations* between people. One cannot simply decide by oneself what should be done with water or land; one ought to discuss with others what to do with them.

Second, the mainstream narrative about the introduction of a “rights” discourse into Chinese society holds that this can provide an effective tool – a “language” as it were – for bottom-up reclamations of greater individual and political latitude. According to this view, the “innovative use of laws, policies, and other officially promoted values to defy disloyal political and economic elites” (O'Brien, Li 2006: 2) is a strategy now largely adopted in China to reclaim citizens’ freedom in face of an authoritarian government. While not disproving this position, in this chapter I show that opposition towards the government could also be staged in a register different from that of “laws” and “rights”. This form of opposition belongs to “the official discourse of deference” (Scott 1990: 101) towards authority and it is largely supportive of an idea of society based on differentially positioned and privileged roles, e.g. not ideologically against the idea of ultimate ownership vested in the state. Rather, opposition towards unilateral decisions in matters of land and water governance are here framed in terms of the *obligations* that the government has towards the people. If the unilateral choices of the state damage the latter without giving back anything substantial, obligations are unmet, and the consent that the people usually give to the local government is publicly withdrawn.

Part II

The Making of Property Relations in Crooked Cart

In my initial vignette I described how Mr Liu, the angry farmer, made what to me sounded a sweeping remark. Yet, to my surprise, the feeling that farmers in Crooked Cart Township were being disenfranchised was widespread. There were many reasons for feeling this way. Land was constantly under attack: drought and monsoon downpours were depriving farmers of precious terraced plots. At the same time, few alternatives to farming were viable for local villagers. While agricultural productivity was reported to be on the rise, gains from the non-agricultural sector were still meagre, representing only 0.9% of BMF villagers’ annual income, and around 17% of the net value of the Township's economy⁹⁶.

96 Data updated to 2011 from Crooked Cart Township Government and BMF Village Committee.

Large numbers young people migrating towards Huize and Kunming meant that the ratio of able workers to land was diminishing. Many farmers reported having plots of land they were no longer able to farm, or that it was no longer convenient to do so, mainly because of their distance or size⁹⁷. Of those plots, a number were “contracted out” (*chengbao*). BMF Village Committee data reports that 10.5% of the land leased by the government to farmers' households was contracted out to other households, but a rent was paid on only 9.8%. For the entire Crooked Cart Township area, a Land Bureau official reported that of the 42,000 *mu* available, 12,000 *mu* were currently leased out. There is no evidence to suggest that more land was left fallow than the amount put under the plough by tenants, though many farmers shared their angst for what they see as a disappearing agriculture.

Water was another source of preoccupation, as we have seen in previous chapters. Every six months, the Water Bureau had to submit to the higher authorities a report on the impact of water shortage on the local community. In one of these, the Bureau mentioned it was increasingly difficult to provide and store water for their 27,000 consumers. Moreover, for the 2011 harvest, the report forecast a reduced agricultural output of over 50,000 tons⁹⁸. A more recent report concluded with an urgent call for a complete reconsideration of the policies guiding water provision in the locale. “We have to understand that water provision will be required to confront harsher, longer and more disrupting droughts in the future (*kang dahan, kang changhan, kang dazai*)”⁹⁹. Even more worryingly, a 2012 document concerning several drought relief measures taken by the Bureau listed 3,322 individuals lacking access to safe drinking water and 3,328 cattle dying from thirst¹⁰⁰.

In what is indeed an eerie twist, less water means also less land. To turn requisitioned land to the construction of much needed water reservoirs was common practice in many surrounding highland communities. The Water Bureau estimated a pace of requisition of

97 Data from a thirty-household survey conducted by me and two assistants in BMF Village shows that the average distance walked by farmers to work their land is 1.3 km. The maximum distance walked reported is 5 km. Respondents reported only the distance walked to the plots they actually farm, not that to the plots they decided to give up because of their distance. Two respondents mentioned "owning" land as far as 30 km away from BMF.

98 Crooked Cart Township Water Bureau, November 2011, *X Zhen Kanghan Jiuzai Gongzuo Qingkuang Huibao* [Report on the Status of Drought Relief Measures in Crooked Cart Township].

99 Crooked Cart Township Water Bureau, August 2012, *Huizexian X Zhen Kanghan Jiuzai ji Xushui Gongzuo Qingkuang Huibao* [Report on the Status of Drought Relief Measures in Huize County Crooked Cart Township].

100 Crooked Cart Township Water Bureau, March 2012, *X Zhen 2012 Nian Kanghan qijian Ren-Xu Yinshui Queshui Qingkuang Tongjibiao (Tebie Kunnancun)* [2012 Crooked Cart Township Report on Water Shortage and its Effects on Human and Cattle Drinking Water Availability in a Number of Seriously Affected Villages].

700 *mu* per year, if the soaring water demand was to be met. Farmers thus faced losing additional portions of land. Thereby, when not directly displaced and relocated by water security projects, as the literature has documented extensively for China and for its south-west in particular (Jun 1996, 2000, 2003, 2007; Ying, Pu 2000; Ying 2001; Mertha 2008; Tilt 2012, 2015), farmers around Crooked Cart had their land allotments reduced to almost nothing.

Besides the struggle of the local agricultural economy and the endangered livelihood of its inhabitants, there was also the issue of land development. An example may illustrate this. Further north of Crooked Cart lies another township called Quagmire Crossing. This township is richer than Crooked Cart and the local government, in its commitment to infrastructural development, was trying its very best during the time of fieldwork to complete the ambitious north-eastern passage, a highway linking Yunnan's capital city to Guizhou Province and ultimately the whole province with the hyper-modern coastal regions of eastern China. For such a project to be possible, conversion of agricultural land to other uses was the first, most basic requirement.

However, the restitution of farmland to the government for precisely this type of project is becoming the subject of heated controversies in China (Zweig 2000; Ho 2001, 2003; Yu 2007: 419-517; Cai 2008; Pils 2014b), because it is often carried out regardless of the former leaser's consent. In fact, Chinese farmers do not actually "own" the land they work. Since 1982, the redistribution of land in Crooked Cart has been carried out according to the number of household members. Such a procedure meant that farmers were requested to stipulate a thirty-year lease with their appointed authority (i.e. the various village committees, hereafter VC), which remains the "ultimate" owner of all Chinese land (Ho 2001: 396-7). For poorer households, such an agreement could be beneficial, as redistribution is undertaken similarly from one peasant family to the next with land allocation varying according to actual needs. However, the fact that farmers do not actually ever own the requisitioned land, does not necessarily lead to easier and less contested land reallocation (see Guo 1999, 2001).

In Quagmire Crossing, a woman had allegedly taken her contempt towards the highway project – which caused forced demolitions throughout the community – to the extreme, blowing herself up inside a government office. The event, while not officially

acknowledged by the local government, did to a large extent impact the imagination of Crooked Cart's neighbouring farmers. In a private conversation with a group of farmers working at a construction site in One Northern Village, not too distant from the WSB, I was asked whether I thought such an attempt could coax the government back to reconsider the highway project, perhaps to rethink its original route, this time leaving farmers' precious land alone. Later in the chapter I will return to the public display of contempt towards the government, fortunately in my case not to the point of being suicidal, and to staged demands for compensation. For now, let me just make the simple point that land and water, according to my research participants, were increasingly becoming resources in dire straits. Scarce, poorly managed and of poor quality, land and water were the cause of some trouble and quarrelling not just when the state was seen encroaching upon them, but also when villagers' competing interests clashed.

Disputes and their Content

From December 2011 to April 2012, I spent many hours under Dispute Manager Nian's supervision in the BMF VC Disputes Archive, studying its documents. The Archive is in fact Mr Nian's workstation. A desk choke-full of hand-written dispute decisions, cigarette cartons, ashtrays, and legal reviews. My sojourn in Nian's office exposed the amount of contentiousness that land and water use foment in the community. Of the forty-eight disputes resolutions documents I collected, spanning a period of six years (2006-2012), eleven (e.g. 22%) involved issues of land, and fifteen were related to water (e.g. 31%). Of the former, three involved the state encroaching on someone's property, the other eight, boundary and land use disputes between villagers. I will tackle the content of water disputes in greater detail in Chapter 7. Let me now draw on a selection of cases, to highlight the quality of contention. With this material, I am trying to show two things: that a concern for unmet expectations of role-fulfilment, e.g. unmet obligations on the part of officials, informs ordinary grievances; and that villagers complain about being excluded from participating into the public life of their own community.

In one "request of hearing" signed by "all villagers" (*quanti cunmin*) of Dong Family Village and filed to the VC on the 12th January 2007, the applicants demanded the suspension or redirection of a segment of the north-eastern passage highway.

This request is about the construction of the highway crossing the only road that leads to the Primary School. It has two reasons. First, it hopes that all the competent offices supervising the construction of the highway's segment close to the great channel will consult [with the construction company] so that this specific road will be kept unblocked (*geiyu xieshang baochi zhe tiao lu de changtong*). Second, the construction of the beltway over the applicant's villages has affected the surface of the already existent road, causing it to be drenched with rain as soon as it pours. Now, crossing with motorbikes, carts or even passing by foot has become difficult. We hope that all the competent departments will provide resolution.

Also linked to the construction of the highway, a “request” was sent to the VC around the same period.

The road that leads to the fields (*nonggenglu*) belonging to my village has been interrupted by the construction of the highway. The case was mediated collectively by the local VC, the Township Government and the organ that supervises the reallocation of leased land plots. Compensation has been given out per square metre. All the parties to whom compensation was due have been already paid. Among these, however there were some who did not get compensation. To those, one of the local VC cadres, whose name I do not dare to reveal here (*you yi ge bugan baolu xingming de ren*) said that he could not give me the money, that I wanted to go against the public interest (*yao nale chonggong*). The VC subsequently mediated the case with the above-mentioned individual. Even if now my personal request has been answered, I wish that the VC comrades (*cunweihui de tongzhimen*) now come to our village, redressing all other villagers' cases, asking this unmentionable individual to step forward. I want him to say in front of everyone (*dangren dangzhong*), in the light of day (*zhengda guangming*) how things really went. He has to say that I deserved what I got and that I did not get anything more than that (*gai wo na de wo yao na, bugaina de wo juebu na*). I call this “when a noble man loves wealth he/she has a noble way of obtaining it, when a small man loves it, he/she resorts to tyranny” (*junzi aicai quzhi youdao; xiaoren aicai hengxing badao*).

In one case mediated by the VC in April 2012, a 42-year-old man complains about the damage to his property caused by one of his neighbours

The offender intentionally encroached (*guzhan*) upon the applicant's drainage ditch (*hou yingou*), discharging waste and pig excrement (*zhushui*) onto it. This has caused several

damages to the applicant's domicile. His behaviour infringed on the applicant's ability to produce a secure environment to sustain a safe living (*bu liyi shengqinren de rensheng anquan shengchan*). All these years the applicant has already lamented the offender's behaviour, filing several applications to the competent authority. He has never been considered by the administration. This is because the VC and the offender entertain a "complicated" social relationship with one another (*cunzaizhe fuza de shehui guanxi*).

In these first three cases, we see citizens asking for cadres' intervention in relations to third party misconduct. While it should be noted that resorting to mediation by cadres was unusual for Crooked Cart villagers¹⁰¹, these cases show two things. First, that applicants appear to care about the *obligations* (towards a person or the community) the authorities are expected to meet. In the last two disputes, for instance, officials are accused of not living up to the standards of conduct imposed on them by their role. Second, these cases show that villagers ask for extended involvement in public affairs. Indeed, the common feature that these three cases share is that they all seem to treasure villagers' participation in public life. Villagers lament when state-society relations are "complicated" thus hampering public, genuine engagement with their own community (case 3). They complain when infrastructural projects are carried out without their consent or supervision (case 1). They feel ashamed when their public persona is slandered to the point that further contribution to village life will be irremediably compromised (case 2) (for similar cases see Thireau, Hua 2001: 16; 79-124; Thireau, Hua 2002; 2010; Wang, Shen 2007). To the authorities, villagers demand more involvement in public life.

What Rights Cannot Do

The above cases have been primarily about confrontation between villagers and officials. In Nian's archive though, the VC seems to be dealing far more often with cases involving peers. In one of these, three farmers, kinsmen between 42 and 60 years old, press charges

¹⁰¹The data relevant to access to justice from my thirty-household survey reports that, of those who declared having experienced "problems" (*maodun*) with fellow villagers in the last five years (i.e. 43.3% of the respondents), only 15.3% asked the VC for intervention. The majority (46.1%) dealt with these "problems" "privately" (*ziji guan*), while the second best option was either to ask the Water Engineer Office (23%) or to "lump" the grievance altogether (23%). See for a similar yet much more generalisable analysis Michelson 2007 and 2008. Note also that requests for VC mediation in rural China should be understood as a strategy to secure compensation against tort, rather than an attempt to restore in rem jurisdiction. That is, farmers usually file complaints to the VC when they are trying to be compensated for damage, leaving aside the problem of reacquiring the rights over the property which has been damaged or requisitioned. Another venue for compensatory solutions to grievances is the *xinfang* system (Minzner 2006; Thireau, Hua 2010).

against three other men. An abridged translation of the document, compiled by Mr Nian, reads:

The applicants (*shengqingren*), all belonging to the same lineage (*zu*), were responsible for the upkeep of their lineage's tomb and its burial ground (*quanzuren de sangfen*). In 2009 one of the men sued, had intentionally encroached (*guzhan*) this land, building three different water cellars (*shuichi*). The men were first advised by one of the local leaders (*cunshe lingdao*) to stop hindering the applicants' use and management of the tomb (*bu liyi shengqingren guanli shiyong fentang*). Another man built a wall around the burial ground causing further nuisance. After many failed attempts at convincing them to stop (*jingguo duoci quanzu*), the applicants resorted to drawing the attention of the authority (*renmin zhengfu*) asking for a lawful resolution (*yifa jie jue*) of the case.

In this case, rights over land were held by the three kinsmen as stewards of their lineage's property. However, their rights to the burial ground did not stop a neighbouring villager from excavating a water cistern for his own use. Similarly, the following case sees the applicant going against his own kinsmen to acquire control of his father's property. In a long “request” a 23-year-old man asks the VC to uphold his ownership rights over his father's estate, as having suffered mental problems, his father was no longer in possession of the legal requirements for meeting ownership. In his statement, the young man reports how his patrilineal kin reacted to his request:

In 2002 I turned 18 and I felt that it was time for me to shoulder my family's responsibilities. For that reason, I called my paternal uncle (*erdaye*) and his wife. I told them my intention, that I wanted back my father's properties (*yaohui wo fuqin de tudi caichan*), so that I could better take care of him (*rang wo lai zhaoguan wo fu*). My aunt replied: “Your mother does not know who is she dealing with”. My uncle added: “You call me to talk how to take care of your father and then you end talking about the land? The land stays where it is, no one needs you”. I did not reply to that, but I knew that I could have relied on the “People's Republic of China Inheritance Law” (*Zhonghua Renmin Gongheguo Jichengfa*). It is my right to inherit my father's land (*wo wanquan you quanli jicheng wo fuqin de tudi he caichan*).

Interestingly, this last case was brought to an end only when compensation was agreed to be given by the young applicant to his patrilineal kin¹⁰². In other words, his appeal to his

¹⁰²The VC requested 2200 *yuan* for the transfer of ownership rights to the young man, to whom negotiation fees were also charged. Negotiation fees were suspended in 2008. I clarify the point now in light of the

right to inherit property was considered not enough to allow for the outright alienation of his father's land from patrilineal control. While these last two cases show how rights might not be enough to protect individuals or groups' interests, they also reveal how in Crooked Cart requests for reclaiming individual or collective rights tend to be couched in the language of "responsibility" and "care" (*fuze, zhaoguan*): a language that, rather than translating the Western notion of rights and entitlement, directly relates to the *obligations* both applicants have towards their families or lineages. Let us now turn to what villagers actually do, outside Mr Nian's purview, to gain access to those resources which "rights" do not seem to be able to win for them.

Office vs Rights

In modern societies, land and water are natural resources which are usually subsumed under a system of norms towards their use and the control over the revenues generated therefrom. What characterises China in this respect is that the set of rules whereby these resources are distributed, used and exchanged in society is the outcome of a "Janus-faced" reformism. Mao contested the "feudal" order governing the nation's countryside – a plea for the landless poor – but recognised the need to balance egalitarian-based redistribution with the need for increased agricultural output (Bramall 2009: 94). The "opening reforms" of the 1980s have subsequently modified the incentives structures and the administrative mechanism that controls the partition of the revenues produced by the economic use of land and water. How to balance rights and liabilities among the various actors involved – farmers and state agents – has long been at the centre of such political reformism (Thorton 2007).

In law, this was achieved through various steps, eventually ending in a multi-tiered ownership framework which, to be succinct, now confers the rights of ultimate ownership of land and water to the state (*quanmin suoyou zhi*) or to the collective (*jiti suoyou zhi*), whereas it gives time-constrained use, and transfer rights to the household (see for details the discussions in Liu, Carter, Yao 1998; Hu 2006: 78; Tilt 2008). In my field site, both the Crooked Cart Township Government and the various VCs I worked in enjoyed the right of ultimate ownership over natural resources, being understood to be "collective" institutions in law. To have ultimate ownership practically means to have the power to control the

subsequent discussion over negotiators' discretionary powers that will appear in the next section.

allocation of these resources.

From the point of view of the state, such a framework allows for policy-driven, opportunistic and selective recalibration of the ratio of agricultural use to non-agricultural use of land in the locale. This has enormous consequences for the pace and scope of China's economic growth (Oi 1999). However, from the point of view of some of Crooked Cart Township's farmers – those whose participation in the revenues generated by land and water development programmes does not seem to be on anyone's agenda – the limited control over property engendered animosity. A wealth of ethnographic evidence shows the degree to which the pliability of the Chinese property regime in force has authorised many local cadres to encroach upon collectively owned land and water sources for economic or political profit (Judd 1994: 27; Siu 1989: 276; Potter, Potter 1990: 331; Edin 1998; Cai 2003). This is possible because, given the splitting of managerial and use rights, the former are vested in specific “offices”. In practical terms, it is not an abstract institution that takes decisions over land and water use, but the concrete person who is in the position (e.g. the office) of taking legitimate decisions over such issues. Truism as this is, the reality of official power made many of my research participants dream of holding such a position.

One day in May 2012 I sat in BMF VC's building, drinking tea with some of its members. At the time, the village was seeing its water infrastructures turned upside down, as the government was intending to radically transform the pattern of land use in the locale, by converting most of the flat plots to tobacco. That day a man from the Township Government visited the VC. He was accompanied by a well-dressed, bulky man holding a checked black and gold bag. The bag looked overstuffed and heavy. It contained numerous wads of red bills. After some preliminary exchanges of remarks and cigarettes, two older women dressed in farm clothes came along. They started talking in a high-pitched and angry tone to the Township official: “You and your friends talked about several hundred *yuan* to be given out, not merely two hundred! To build up the small dam (*xiaoba*) requires much more money than expected. We need to buy more material, and the task is more difficult than we initially imagined. We talked to the group leader (*xiaozuzhang*) and he said, ‘Don't ask me to get into this (*wo bu chengdan*)’. His supervisor also said ‘I'm not getting into this’. How could they say that! Aren't they supposed to assume responsibility over precisely these types of issues? This is why we came here!”

The official, clearly annoyed by the request for more money, replied that a contract specifying the amount of funding supporting the construction of the small dam had already been signed. He denied that he had any leverage to pull off a more profitable contract with the working unit, and he challenged the two women to provide evidence that what they were saying was true: “Do you think that I can give money to anyone's asking? You should prove to me (*shuoming*) that you need the money for the dam, bring the master mason (*shigong*) here and let's see what he thinks about it. Besides, when we agreed on the budget, two hundred seemed fair enough (*gongping de*)”. One of the women, outraged by the official's refusal, retorted, “Fair what? (*zenme gongping!*) Do you even know what being a *laobaixing* means? Living costs are so huge I can't save a penny! Telly costs me 60 *yuan* per month! Again, this year we've had no water: I will have to throw the rice away! If you were to give me triple what you said, it still wouldn't be fair! We want four hundred. We are asking you to cover our living expenses (*shenghuofei*), really.”

The discussion continued for several minutes without either party showing interest in backtracking to more sympathetic ground. Master Du, also present, cagily moderated the squabble, proposing an agreement around 300 *yuan*. The verbal tension was intermittently tempered by someone cracking a joke, or commenting on the mute TV drama showing on the small screen in the corner. Finally, a middle-aged man, hair whitened by a thick layer of concrete dust, entered the room, causing some relief to the two women. In a laconic manner, the man confirmed the women's story. The money-bag man responded by handing out four wads of bills to the newly formed trio.

When the three farmers had left, money could be finally distributed among the cadres and officials. Deputy Yu volunteered to shoulder the burden of giving out the red bundles. “I should take everything and leave!” he joked. We finally walked upstairs, looking for Mr Nian. We found him snoring on a sofa in the meeting room.

“Your share (*touzi*),” said Yu, waving a bunch of notes in front of Nian's face, pulling him out of his drowsiness.

“Wait - what? What share?”

“The one from the project (*xiangmu de touzi*)”

“But...”

“If you don't want it, I'll take it!”. Mr Nian reached for the money, giving a hint of a smile. Cigarettes were retrieved from Yu's shirt pocket. They lit each other's. “When you are

finished studying, you should consider becoming an official, Andrea”, Deputy Yu commented sarcastically.

As is clear from the vignette, to meet an official could be a good thing. Negotiation could lead to material benefit in a context where legal guarantees are absent. But to be an official is even better, because it gives you the upper hand over how to break down investments and turn them into incentives. However, officials in China do not just care about their own petty interest. One day at BMF VC, Party Secretary L was discussing with an engineer the impact on the community of a water-related project. A number of group leaders were also present, representing the interests of their own constituencies. One of the group leaders refused to give his approval to the project, and thereby refused to provide the essential labour for the construction of a new irrigation channel (for an illustrative case see Chapter 3), unless with the irrigation infrastructure a communal drinking water tap (*longtou*) was also installed in his own community. The negotiation progressed, and afterwards the water tap appeared at the entrance of Wang Family Village.

In contrast with how rights operate in the community – entailing overt confrontation and the risk of jeopardising one's position within one's own social network as in the case of the young boy requesting his father's land – approaching an Official in Crooked Cart Township allows for a variety of strategic manipulation of one's claim, and thereby for greater chances of success. Officials could be used as proxies for wealth, and when face-to-face negotiations do not succeed, instrumental confrontation does. One case clarifies this point. In Pear Field Village, a young man had built a house at the turning point of a hairpin turn. Village cadres contested that in that position the house could, and did clog up traffic. They then proceeded to demolish the unauthorised building.

Soon after that, the man sued the two cadres in court, demanding huge compensation. The young man claimed in court that the cadre used the “obstacle to transportation” story as a pretext (*jiekou*), and that they wanted to hurt him for some other undisclosed reasons. The court agreed with the plaintiff, demanding 15,560 *yuan* from the two cadres. When I met the two officials to discuss this case, they looked terrified. They told me that in a previous extra-judicial settlement they had already bargained for 3,000 *yuan*, and that they now did not know how to afford the compensation. One of them was sure that the young man erected the house in that position only because he knew that it was illegal to do so. It was a

sort of trap, and they had fallen into it. On that occasion, he voiced his disappointment to me:

An official has to follow the five principles: virtue (*de*), to practice the virtues of kindness and charity (*deze*) while governing. To rule justly (*zheng*), to set an example for the people. To be hard-working (*qin*). To obtain results (*ji*), working towards an objective, and finally to be honest and upright (*lian*), meaning that you should avoid delaying what it is your duty to do. We have dealt with this situation following these principles, and you have seen how we get treated instead. To be principled today is a shortcoming (*youde jiushi you quedian*)”

To hold an “office” in Crooked Cart means to have a certain degree of discretion in terms of how local affairs should be carried out. But power is linked to responsibility, and being an official implies being targeted by a variety of requests, expectations and fraud attempts. In sum, this is a social role that carries greater weight and prestige and is very attractive (see Hok 2003). Let me just give a final example. One day Little Shen - Old Brother's six-year-old son - and I were having fun drawing with coloured chalks on a chalk-board in his parents' courtyard. “Uncle Andrea, let's play ‘What do you want to be when you are older?’ (*xiangdang youxi*)! It's a game we learned at school today!” – “Yes! How do I play it?” – “You should write the name of the job you'd like to do when you are older” – “Ok, I'll start: University Professor (*daxue jiaoshou*)” I wrote in bright blue on the board. “Now it is my turn”, said Shen. He then started drawing a Chinese character, slowly and tentatively in gold chalk. When he had finished, he stepped back from the board, disclosing a pair of golden, scrawled Chinese characters. “I'll be an official! (*daguan*)”. Later, when I recounted this story to his father, Old Brother gave me a broad smile:

Everyone wants to do that in China: the power, prestige (*quanwei*) and all of it. But most of all, it is because of how much money you can make out of it! Did you see Peer Field village's old chap (*laotou*, referring to the village's Party Secretary) negotiating disputes the other day? Mediation usually goes uncharged. But there's no regulation saying it is prohibited to make applicants pay for it. The old chap demands 50 *yuan* per head to provide mediation. It is very clever and civilised (*jingtou ye wenming*): by charging a fee, it creates a reason for them to be serious about requesting officials for mediation. If it's just a triviality, they won't spend money on it. At the same time, he has invented (*faming*) a new source of income for the VC. This is important for showing that your locality is doing well in terms of revenues (*gongzi*). Obviously he's getting a good portion of what he asks. He does not break

any laws by doing that. Actually is getting “face” for everyone: for himself, for the people who are seen to be less quarrelsome (*chao yangzi*), for the locality as a whole. He's not just an official, he's playing the “great” official (*dang daguan*)”.

Under the “Janus-faced” property regime I described above, to be an “official” means to be in the position of presiding over the flow of revenues the state can generate by producing ad hoc administrative regulations. For my informants, this power appears to be greater than the limited efficaciousness of rights. I read the ethnographic material presented in this section as showing the preference of Crooked Cart people for an “obligation-based theory of property relations” as opposed to the “rights-based discourse”. Holding “office” arouses aspirations and determines a standard of conduct for society at large. The obligations that officials entertain with their relevant community keep social relations “alive” and through them, constantly negotiable access to resource and property is secured. This is something that “rights” cannot do in Crooked Cart.

Part III

Popular Protest #1

A few months after my arrival in Crooked Cart, the local authorities were about to launch the construction of a new government compound. The government was reclaiming almost 80 *mu* of land, originally allocated to eight different families who had been farming there throughout the year. The project, costing almost 4 million *renminbi* to the local and county governments, aimed at providing shelter for 250 government members' families.

It was at the inauguration ceremony that the villagers' opposition to the project was made public. That day I exited the hotel, where I was lodged temporarily, and was surprised by a huge crowd silently stationed in front of the main construction site. One hundred metres to their right, a yellow and blue grader, followed by a bulldozer and a numbers of other heavy equipment vehicles were patiently lining up along the motorway, facing the toll gate. This awesome sight – the imminent arrival of a horde of land-trampling machines – gave the scene a stillness fraught with unvoiced expectations. The crowd, more than a hundred people, was composed of men, women and children, many of whom, with hands in their pockets, and a dumbfounded look, kept moving and jostling around, in an attempt to find

the right angle to better gauge what was about to happen. Dotted the assembly with red helmets were the construction workers, who smoked carelessly and chatted, unimpressed.

As a measure of containment, a ring of troopers was set in place: outnumbering the civilians almost two to one, they watched the crowd attentively, stopping newcomers from joining in. At specific points along the road, the police (*gong'an*) had set up checkpoints. Eventually, the grader arrived at its final destination. Its first move would have been to deposit a load of massive stones on the paddy field right behind the crowd. Then something happened. A woman broke away from the crowd, walking slowly towards the vehicle. Looking straight into the eyes of the man driving the grader, she climbed the vehicle, reaching for the cabin. Nobody tried to stop her. Face to face with the driver, she exchanged few words with him, leaving the impression she was almost scolding the man, trying to discourage him from carrying on with the operations. A moment after, the lady turned to the crowd, raising her voice: “This land earns me 2000 *kuai* a year!” The assembly stood silent. A group of youngsters got closer enough for me to ask, “What's happening?” – “It's about the land, this is a case of land expropriation (*zhuazhu tudi*)”, one of them replied with a smile.

After few seconds of bafflement, I decided to take pictures of what was going on. The vehicle was now being surrounded by policemen, who asked the lady to get off the cabin and to refrain from creating further nuisance. Suddenly, my camera was lowered by a stranger's hand. A policewoman warned me: “Look, it'd be better if you just got out of the way. It is dangerous over here. These people are violating the law. Today we have an inauguration for an important state project, due compensation has been already given out. This was all done according to the law. It's nothing more than a small group of lawbreakers (*fanfa de ren*)”. Unable to take pictures, or even to watch the unfolding protests, I left.

Figure 16: The requisition of land



The opposition towards the land development project was staged because of the inherent ambiguity of the administrative framework in place regarding land (see Ho 2005: Ch. 2). The fact that “use rights” could at any given time be suspended and the contested land turned back to the state, is one of the reasons behind the scepticism toward state laws in Yancong. During the days that followed the public protest, I probed my informants for the reasons behind its staging. One informant openly complained about the state's conceit that its development choices do not require consultation with the affected population. “That plot of land was registered as ‘convertible’ (*zhuanyong*), but look, when the government decides that it wants to do something, it simply does it, without even bothering to inform us what and why. Saying it is about the law is beside the point, the problem is that they decide on their own, they do as they please”. With others, I inquired whether the law could be brought on the villagers' side by suing the government. “You have to understand that the requisition was lawful (*an falü*). It is because of the temporary use of land (*zanyongquan*). What could that possibly mean? The law in China is another way for the government to make a profit (Dial. *zhongguo falü huoli*). There's nothing to be gained in taking the case to

court, they are just another branch of the government (*zhengfu de zhidu*)”.

Along the lines of Mary Gallagher's description of how Chinese citizens develop a form of “disenchantment” towards the law out of their experience with it (2006), my informants did not trust “use rights”. To them, “rights” to land actually limit, rather than expand, the kind of demands villagers could express. Cases of “lawful” land requisition cannot be properly contested on the grounds that farmer's rights have been infringed, because “use rights” are temporary and are devised for expropriation to be possible. Moreover, “use rights” limit the intelligibility of dissent, as they recompose opposition exclusively in terms of neglected or unsatisfactory compensation.

Sitting by a newly set bonfire inside the BMF VC Building courtyard, Party Secretary L and Master Du were the first to express their views on the protest. “Only 20% of the people present were there to oppose the project, the remaining 80% were actually in its favour. The local government set the compensation up to forty thousand *yuan* per *mu*: that equals what you'd earn in forty years of farming the plot. Farmers gain something like ten thousand *yuan* per year, if you factor in also the government subsidy (*butie*) and whatnot. I really cannot imagine what those people had in mind (*kanfa*) when they started protesting¹⁰³”. Thus, “use rights” deny villagers the opportunity to negotiate their claims with officials, as protesting against “use rights” makes villagers look like a greedy, unintelligible mob in the eyes of local officials.

Popular Protest #2

Old Brother and I were coming back from an early morning breakfast with some of his business colleagues. On the way back, driving his decrepit ‘dumpling car’, he looked beyond tipsiness: his round, tanned face turned full-bodied red, his rapidly blinking eyelids evoking terrifying car-crash scenarios as we descended the tortuous road to Crooked Cart at full speed. Once we had reached the entrance to One North Village we realised that the previous night's heavy rain had caused some damage: huge rocks had fallen onto the

103 My field notes specify that Party Secretary L, when pushed on this particular point, agreed that the stance adopted by the crowd, i.e. mute spectatorship, signalled its tacit consent (*moxu*) to land requisition. In the literature on popular protests in China however, the tongue-tied fashion whereby popular protests are often staged, has been widely read as a side-effect of the legal framework that regulates demonstration in this country. The *Law on Processions and Demonstration* in fact makes mass protesting legal only with the prior approval of the police department (Li L. 2009: 8; Cai 2010: 31).

narrow road and the paving was covered with a thick layer of deep red, muddy water. We pulled over. Queuing ahead of us was an endless line of vehicles, big trucks as well as motorbikes. In most of them, the driving seat was vacant, suggesting the disruption had been going on for a while. We were flanked and overtaken by a series of motorbikes, many of which got stuck in the mire. Old Brother turned off the engine and collapsed on the steering wheel. I spent several minutes looking vaguely in front of me, as all around people honked in despair.

Waking up to the sound of many U-turning vehicles, my drunk companion finally decided it was time for taking the lead. We drifted to the end of the queue: a turbulent stream of red muddy water was bisecting the road ahead of us, blocking the way across. On both sides of the running water, thirty or forty people were positioned. It was then clear that the flood was not caused by a summer downpour. Apparently, this group of farmers was behind the flooding. Water flowing from a huge irrigation channel on the upper side of the main road had been diverted through sand-bag barricades, flooding the crossroads with mud. Leading the group, a man in his fifties wearing a vest and sandals stood resolute in front of the barricade, halting the many bikers' attempts to get through.

Time passed slowly. What everyone now understood as a public protest went through moments of cacophonous upheaval alternating with a noiseless lull. I had seen this before: the quiet stillness of the public protest against land expropriation months before. After a while, and with the help of some friends of Old Brother involved in the protest, we finally got past the crossroads. We left the protest behind us, without having even fully understood the reasons behind it. No slogans were shouted during the protests, nor did anyone feel the urgent need to communicate with us or with anyone else what was truly going on.

As we got past the protest, I glimpsed the Water Bureau's service car arriving on the scene. Mr Yong saw me and waved, the other hand on his cellphone. "It must be something related to the Party! Don't you see? The water's red. The first thing that comes to mind is red as in the Red Party, right (*hongse jiushi shi gongchangdang de yanse, shi le ma*)? Someone has failed to do his job (*guanli genbushang*) and the people acknowledge this in their own way," said Old Brother, who apparently had come to his senses. "This has to do with the Party. It's a way of saying that the Party has been irresponsible (*bufuzeren*). I guess your friend Mr Yong will be the first to be questioned. It was him who didn't take

care (*lizhi*) of the situation, wasn't it?"

Later that day I eventually discovered what had happened: the violent downpour of the previous night had made the main irrigation canal break its banks, swamping hectares of rice paddies. As with the prior case, in the following days I collected different points of views on the public protest. Many of my informants at the Water Service Building shunned interrogation as far as possible – in the days following the protest both the Water Bureau and the Water Engineer Office stayed open for only a couple of hours in total. The only comment Mr Yong decided to give me was the succinct remark that, according to the partition of managerial rights, “irrigation infrastructure should be taken care of by farmers associations, not by us”. Instead, a more elaborated analysis was given to me by Party Secretary L. His main preoccupation during those days was to calm down the many complaints about the subsidence of BMF's irrigation infrastructure caused by the aforementioned downpour. Party Secretary L commented in his office:

The reality is that the government is losing its purchase on the situation. One of the reasons why is because such events are occurring much more frequently. Another is that the sheer number of our populace is too big. They are many and our police office (*paichusuo*) is understaffed. But for me, at the root is the fact that the people listen only to us, meaning the Party Secretaries (*shuji*), and mistrust any other governmental office. [...] The work of the Secretary is crucial in today's society precisely because the power to control (*kongzhili*) such outbursts of violence is withering away. This is all very frustrating. We are basically reduced to powerlessness (*wunengweili*), and yet people only put trust (*xinren*) in us and in no one else. The government does not recognise we have such an important part to play here. [...] Look all these dispatches [he waves a bundle of official communications] the central government sends me! It is literally impossible to finish reading any of these. But you know, they just give you the “national framework” (*guojia de kuangjia*), just words, what we do here is to take real action (*shigan*).

The two disputes were organised as a reaction to what were perceived as instances of official misconduct. In the first case, a joint state-private company was encroaching on collective land with no opposition from the local government, while in the second the Township's government fell short of protecting farmers from the caprices of a tamed

nature. The demonstrators' strategy was one of accumulation: by amassing people in a single location, it aimed at making visible dissatisfaction towards the government. In the second case in particular, a feeling of betrayal was made public by making the state's deficiency in water management affect anyone crossing the village.

I interpret the main claim these two protests advanced in terms of neglected care, of violated obligations. With public protests, Crooked Cart villagers acknowledge that what is being infringed are not individual or collective rights, but the tenets of a relationship between "the people" and its accountable officials regarding local common resources (e.g. land and water). In the eyes of villagers, the state has two basic obligations towards its citizenry: to discuss governance and development of local resources with their local users, and to allow villagers participation in village affairs. It is to afford these two basic requirements of political participation that local villagers "put trust" in local officials, to quote Party Secretary L. Unmet obligations are a reason for resentment in Crooked Cart, as documented by this chapter's ethnographic material. Instead, "rights" come to be seen by local villagers as a scapegoat, a strategy employed by officials when the imperatives of development urge them to sever obligations and to take unilateral choices in favour of a self-serving economic agenda.

Figure 17: The effects of flooding on crops

Conclusions

Property is “above all a story of relationship and interdependencies” (Verdery 2003: 362). In this chapter, I showed the quality of this relationship, how interdependency between common villagers and state agents is formed and what happens when interdependency breaks down. Property in land and water is contested in Crooked Cart Township due to their social use. When talking about property relations, however, local governments and the villagers of Crooked Cart appear to speak two different languages. The government talks the rights-language, taking the position that popular participation in natural resource use could be simply ruled out by the letter of law. On the other hand, when Crooked Cart dwellers talk about how to manage land and water, they are really talking about obligations among differently positioned individuals. The state should not exclude them from participating into public affairs, as it should not take away or mismanage local resources without properly compensating villagers or investing in better management and infrastructure.

This chapter provides a native theory of property relations in China that purports a reconsideration of recent analysis, quoted at the beginning, of the rise of a “rights” discourse in China. The discussion, I contend, cannot be grounded in the reductive dichotomy of rules/rights. This is a dichotomy that characterises Chinese people's reclamations as stemming either from the idea that national rules and proper procedures are not being followed (Perry 2008), or from people's subjective feelings of violated entitlements (Li 2009). When disputing access over land and water, people in Crooked Cart show greater concern for the social obligations maintained by the party who consent, or give way to someone's enjoyment of said goods. Villagers' anguish towards land requisitions or water allocation, driven by what they perceive as inscrutable or deceitful rationales, appears to be linked to feelings of violated obligations; obligations which join them and the state together and whose fulfilment falls on the latter.

This conception of obligation, I have argued, should be seen as rebalancing the view of those scholars who argue that Chinese citizens are starting to think of themselves as being endowed with individual or collective rights *against* the state. While an “obligation to give” and a “right to use” could be taken to mean the same thing – that people think of land and water as something that they deserve and hence as something from which they

cannot be separated, i.e. as something inalienable – there is indeed a difference between reclaiming one's right and demanding official redress, one which generates a specific type of contention and bellicosity between local farmers and the state.

The way in which, in Crooked Cart Township, benefits are allocated through political manoeuvring constructs a specific morality governing the rapport between citizens and officials. This is a morality which stresses both the benefits deriving from, and the responsibility entailed in holding an “office”. Unlike what happened to many post-socialist countries where “shock therapies” have been administered to rearrange local property regimes with the intent to “carve out” a new type of self-reliant individual from society – thereby establishing the basis for a different rapport between the state and its citizens (Verdery 2003: 360; Brandtstädter 2012: 20) – China never experienced such a revolution. The use of collective property is still very much contested, not in terms of the opposition between private interests and the state, but on the moral grounds that when the state takes away with one hand, the state has also to give with the other.

To make officials accountable through laws in rural China is a strategy fraught with ambiguities, because farmers understand this instrument to rest firmly in the hand of those they contest. Because of that, I am compelled to highlight the “social” and “moral” origin of property relations in my field site. In the two popular protests I attended during fieldwork, it was the inherent ambiguity of the various laws, regulations or administrative habits governing access to land and water to conjure much opposition. The law, and the “right” contained therein, were not seen as a source of individual or collective empowerment, but rather as diversionary tactics employed by the state whenever obligations towards the people had to be truncated in search of self-serving economic development. In the last chapter of this thesis, I will show how Crooked Cart villagers organise village life and manage water outside the domain of central state regulations. In doing so, they regain control of what they think of as common resource. However, the counter-management practices they develop may well fall short of securing them an enduring source of water, urging them to demand and seek the collaboration of local state agents.

Chapter 7

“You Shall Not Affect the Present Conditions of the Flow”: Rules and Moral Norms over the Commons in Third-Party Mediation

This chapter looks at the role of third-party mediation in the management of the Crooked Cart Township water supply. Mediation as an ethnographic object has been studied extensively, and engaged through the most diverse scholarly concerns, spanning from its localised history and transcultural functioning, to its symbolic power (Nader, Todd 1978; Gulliver 1979; Comaroff, Roberts 1981; Caplan 1995; Nader 2000). The focus here will be on one important sub-component of mediation: the invocation and production of rules during mediation sessions. Among the many rules, I shall focus on those relative to the management of water or other common resources. In doing so, this chapter responds to a call for better understanding of the place of conflict management in studies of the commons (Stern et al. 2002: 471). In fact, the common management of water usually implies the mediation of potential conflicts between users. In the interdisciplinary literature on the commons, it is widely accepted that governing common resources is an enterprise made possible and durable only when a set of contextually adapted and consistently enforced rules is available to solve conflicts over access (Ostrom 2005: Ch. 8).

Yet, so far the literature on the topic has merely acknowledged the existence of such conflicts and recorded sets of rules adopted in various contexts for their resolution, without giving proper consideration to how such rules are locally debated and crafted (Lam 1998, 2006; Brewer et al. 1997; Tang 1994; Ostrom et al. 2011; but see Bruns, Meinzen-Dick 2000). While anthropologists are gradually engaging with issues pertaining to the generation of such rules (Achenson 2011: 339; 2002; 2010 and Holm 2007), the empirical material collected thus far remains less than exhaustive, especially in regard to smaller-scale, extra-market cases such as those presented here. This chapter tackles this knowledge gap by looking at the invocation and production of water-related management rules during the mediation of small-scale water conflicts. Moreover, third-party mediation is a rather under-studied component of village life in rural China, and this chapter provides detailed analysis of both recorded and observed mediation sessions.

This chapter is organised as follows. In **Part I**, I first take a brief look at what third-party mediation is in China and its significance for the current administration of its rural

villages. There, I show that the idea that rural villages are governed through locally enforced customary rules, as opposed to central state laws, is a distinctive feature of the public representation of village life. Secondly, I look at archival documents collected in the disputes archive I presented in the previous chapter. The discussions of water-related cases will show that rules governing water access are created locally through mediation.

Subsequently in **Part II**, I move to contextualise local water disputes by placing them against the broader setting of disputes over common resources. This section gives ethnographic details of three mediation sessions I attended while on fieldwork, showing how rules over the commons and moral norms dictating proper behaviour are conflated into a single discursive regime. Analytically, rules and moral norms should be kept distinct and I will attempt to do that by engaging in a dialogue with Elinor Ostrom, Jon Elster and Simon Roberts, developing a framework that allows us to differentiate between the former and the latter.

One striking difference between rules and moral norms appear to be their enforcement. In **Part III**, I will start by showing how rules over water management are, in my field site, enforced loosely, avoiding coercion and requiring instead persuasion. Finally, I will draw on in-depth conversations with some research participants as to how they evaluate local and national rules regulating water management, thus completing my picture of the ethos underpinning Crooked Cart's dispute resolution.

My attempt here is to show that, while rules prescribing how water should be distributed and its flow protected are one important achievement of mediated discussions among Crooked Cart's residents and officials, these are tentatively upheld in a context of faltering commitment towards their strict enforcement. The lack of enforcement is often explained by the fact that protecting water access is only one among the many grievances brought to mediation. That is to say that people debating water management usually find themselves involved in all-encompassing bickering, with a concern for upholding moral norms – i.e. how one ought to conduct oneself towards others – as key. The conflation of mediated discussions about rules governing the common water with broader issues of moral conduct appears to be a hindering force in the fair and sustainable management of Crooked Cart's water supply. In fact, this conflation effectively makes it difficult to isolate the root cause of mismanagement, often leading mediators to go after solutions that fail to redress

wasteful practices.

One further qualification for the argument here presented is that this chapter is written from the point of view of those who have a vested interest in promoting order and law-abiding behaviour among rural villagers. In various other chapters (4, 5 and 6) I have dealt with what villagers do to confront state impositions and how they organise to lessen their dependence on it. As I focus on intra-village disputes, my attention will be drawn more by how water distribution is achieved within one “infrastructural community” – i.e. a group of people co-managing a portion of a water supply network – rather than on how that community secures their water share in face of competing, extra-village interests. Finally, my attention is here on the distribution of water, as opposed to its allocation or its use. Norms governing the allocation of water have been discussed in Chapters 2 and 3, and those over its use, tangentially, in Chapter 4.

Part I

People's Mediation

In the previous chapter, I gave a general overview of the material collected in Mr Nian's archive. Here I shall dwell, briefly, on what people's mediation (*renmin tiaojie gongzuo*) is, and why it is important for the management of water.

There are two ways to understand dispute management in rural China. The first is to see it as the lowest unit of the People's Republic Judicial System. This is the way in which the people working in the mediation committee (*tiaojie gongzuo weiyuanhui*) of BMF Village – the one I spent most time in – understand their own job to be. The Mediation Committee (MC) is composed of five members, three of which are members of the VC. For those MC members who are also democratically elected people's representatives – Party Secretary L and Master Du – the mediation tasks are part of their job as village leaders. Things are different for Mr Nian, who is not a VC member, but just a “group leader” elected in a small constituency. For him being part of the MC is a part-time job, for which he is paid 300 RMB per month. His job involves archival tasks such as filling the disputes forms during mediations and keeping the disputes archive in order. When disputes escalate outside the MC's jurisdiction – that is when claimants are not satisfied with the outcome or when the

content of the dispute is more serious than expected, perhaps involving criminal cases – Mr Nian acts as a liaison officer between the MC and the grassroots tribunal (*fayuan*) located in Crooked Cart Township. To be eligible for the job, Mr Nian has to attend an official exam on administrative procedures, laws and regulations every year. Two days of mandatory legal training sessions, called “cadre training in social stability through the rule of law” (*fazhi weiwen ganbu peixun*) are offered every few months by the Huize Civil Affair Bureau (*Huize xian Minzhengju*).

The literature on the Chinese legal reform has recently focused on the “resurgence” of extra-judicial settlement mediation (Peerenboom 2008: 16; Peerenboom, He 2008: 24-28; Liebman 2011; Meinzner 2011: 945; Balme 2013: 189-90; for a review Kinkel, Hurst 2011). This is often understood to be a sign of the country's turning away from law, in favour of a reclamation of the communist dispute resolution practices in vogue during the Maoist era (see Palmer 1990: 314; Demeulenaere 1987). Apparently, the aim of such a movement is to provide “better access” to justice to rural communities, while decreasing the level of exposure of the judiciary to huge fiscal expenditures rising from this expanded access. Third-party mediation is also prescribed by Chinese law as the primary mechanism for solving water disputes between individuals (Palmer 2000: 81; Wouters et al. 2004: 262).

What does third-party mediation mean? Usually, it means third-party negotiations where a mediator provides non-binding, free counselling to claimants. If settlement is not reached, the claimants shall seek the intervention of higher authorities. In the case of scaling up, the dispute will be adjudicated in tribunal, where through adversarial litigation the judge will rule out one of the parties as the culprit. In Crooked Cart, mediation can be ordered directly by the MC, summoning the contenders to the VC building, or be requested by one of the contenders sending a formal “request for hearing” to the MC. Therefore, regardless of the fact that mediation can be described as extra-legal (see Nader 1989; Merry 1989; 1992: 359-361), its employment in rural China is prescribed by national and provincial regulations. It is thereby understood by participants as being a mechanism for dispute resolution recognised by state laws.

Another way to describe mediation in China is by bringing to the fore the quality of its discursive style. Anthropologists have usually gone down this road when studying dispute

processes worldwide (e.g. Starr 1978; Mather, Yngvesson 1980; Felstiner et al. 1980; Conley, O'Barr 2005; Nader 2000). For a long time, China was left at the margin of the ethnographic approach to disputes. In the last decades, however, Chinese anthropologists have started approaching the topic, providing a panoply of detailed case studies (e.g. Zhu 2000; Zhao 2003; Zhu 2010, 2011; also Pirie 2013). People's mediation has been made conspicuous to the anthropological eye, because China, as I noted above, has been going through a multi-step legal reform, one component of which was the reorganisation of village-level justice.

One thing that emerges from the ethnographic studies of people's mediation is that the Chinese legal reform is currently interpreted by common people as creating a polarisation between how the law works and how disputes are instead resolved at the village level. This polarisation is made of two legal orders: on the one hand, there is the “law” (*fali*); on the other, “custom” (*xiguanfa/xisu*). The former is imagined to be punitive and coercive, while the second is conciliatory and negotiable. Regardless of the origin of village customs – alternatively argued to be traditionally Chinese (e.g. Lubman 1967) or stemming from the communist past (e.g. Cohen 1966) – “custom” is a set of principles that would regulate village life in rural China (see for the original argument Fei 1992[1947]: Ch. 8-9; also Huang 2010). The ethnography of the clashing of these two orders suggests that the popularisation of law in the countryside is concretely undermining the traditional ethos based on reciprocity (Zhu 2011: 233-4; Zhao 2008: 234; 2011: 132-137).

My own informants largely shared the point of view of some of the Chinese anthropologists mentioned above. There are indeed two ways of regulating social life in rural China. One is by applying the law (*hefa*), the other by following “reason” or “custom” (*heli*). In mediating disputes, village leaders are keen to employ the latter, not the former. Following “reason” is to some extent a way of maintaining discretion in discussing village affairs. In that, it is similar to some of the institutional practices mentioned in previous chapters (e.g. Chapters 2, 4 and 5). Here, however, I will only focus on whether following “custom” yields anything good in terms of water management, and if so how. An analysis of water disputes suggests that my Chinese informants, by following “custom”, construct specific rules governing local water management. The following section will describe some of the rules related to water management that emerge from disputes resolution.

The Production of Water Management Rules through Mediation

During my stay in BMF village, I collected fifteen cases of dispute over water issues (*shuigou jiu fen*). These cases incorporated questions about the management of the water network, or were brought to the MC's attention when mismanaged water harmed one claimant's properties or interests. A water dispute record looks like this:

Cases: 1, 2007/8/23

Applicant: Liu Wending, Man, 42, Han, Farmer, resident in Jia Family Village.

Defendant: Sun Li, Man, 34, Han, Farmer, resident in Jia Family Village.

Cause of Dispute: Waste-water channel; irrigation canal.

Mediation:

- 1) The original access road is owned by the Applicant.
- 2) The defendant's property cannot be built on the surface of this road.
- 3) The management of defendant's waste-water channel is given to the Applicants, as the defendant has considerably damaged it by pouring an excessive amount of concrete onto it.
- 4) The canal that departs southward from both parties' houses should be kept clean.
- 5) The waste-water channel can be preserved only if attached to someone's property; if damaged, it should be built anew, by both parties.
- 6) The mediation fees are on the Applicant.
- 7) From this day onward, both parties should restrain from acting unreasonably (*wuli shengshi*), if this should happen, the consequences of transgression will fall on them only.

Fingerprints

As in this case, none of the recorded cases makes explicit reference to any specific law that should be followed to solve the dispute. Likewise, it is not immediately clear why such a decision should come across as more acceptable to claimants than others. What I will try to

show is that, for the material in my possession, regularities in MC rulings can indeed be found, despite the lack of reference to the law. Village leaders work through the case by conforming to “reason” (*heli*). How they go about solving these cases shows that the “reason” behind the decisions is basically to preserve the canal system, thus affording water access.

How is this reason made visible? First, breaking down the mediation strategies reveals three sets of issues relative to water that the MC considers to be relevant. The first refers to whether water appears to affect someone’s interests or whether its flow is affected by someone. These could be:

- (1a) damage to property caused by water; or
- (2a) changes affecting the water infrastructure.

The second set takes in consideration issues of accountability:

- (1b) wilful damage;
- (2b) accidental damage.

The third set is about the property framework affecting water. Water infrastructure could be understood to be

- (1c) individually managed;
- (2c) jointly managed; or
- (3c) collectively managed¹⁰⁴.

The juxtaposition of these three sets creates a matrix wherein all fifteen cases in my possession could be located.

For example, in a 2012 case, channelled water had burst onto the claimant’s land, destroying his crops. That portion of the channel was managed “collectively” by Mr Bing and Mr Su's family. During the discussion, the defendant claimed that they did not know that the portion of land belonged to the plaintiff and that they discharged water without malice. The MC found both families to be guilty of wilfully mismanaging their allocated

¹⁰⁴Individually managed water infrastructure is thought to allocate liability to the household which operates it for its exclusive benefit (e.g. water meters, waste-water channels). Jointly managed infrastructure allocates liability to two households whose domestic and agricultural uses of water depend on said infrastructure (e.g. open-air irrigation ditches that need to be regularly cleaned and repaired by the two nearest households). Lastly, collectively managed infrastructure is water infrastructure whose operations affect a greater number of water users and which are partially supervised by the WEO (e.g. water cellars and small water cisterns).

section, thus turning managerial rights¹⁰⁵ to the claimant. This is a case where water is the “mean” of the violation (1a), where the damage is wilful (1b) and the infrastructures are owned collectively (2c). Conversely, in a 2009 case, a water waste channel overflowed with filthy water after a rain-storm, causing damage to the plaintiff’s property. MC agreed with the plaintiff that the owner of the waste-water channel had no intention (2b) of damaging his land, and thereby decided that from there on the channel had to be managed collectively by both, to prevent overflowing from happening again. Similarly, in another case, the manager of a canal, which had not received water for a long period of time, was accused by a neighbour of mismanagement, as water suddenly flowing through the canal had seeped into his basement. The MC found the manager not guilty (*bu fu renhe fuze*), but asked him to take responsibility for cleaning the canal and the neighbour’s basement.

Contrary to what we saw in the previous chapter with land-related mediation, these cases show the MC’s interest in keeping compensation in water-related cases marginal (only one out of fifteen cases is resolved with compensation), preferring to allocate managerial rights onto more scrupulous villagers, who will guarantee better supervision. In four cases, the MC applied this customary rule. The refurbishment, expansion or alteration of immovable property also features prominently as a cause of water-related disputes. In five cases present in the dataset, the MC explicitly mentioned that “old ditches” (*gugou*) when affected by the construction or expansion of houses and roads should be reconstructed and that the original direction of the flow should not be affected (*an xianzhuang liushui*). What preoccupies the mediators most is to preserve the waterways. The Crooked Cart irrigation system is a complex network of old ditches that lacks complete mapping. Encroaching on such canals poses a serious threat to water delivery, and should be protected, no matter who is involved in the dispute. In a 2007 case, a group of villagers asked the MC to mediate a dispute against a development company which was about to cover an old canal. The MC negotiated with the company, persuading it to build a new channel beside the new road, thus replacing the old one with a more efficient infrastructure.

Unpacking the cases in this way helps us consider how villagers and local officials engage with water management, producing solutions that are “reasonable” and based on the

¹⁰⁵In this context, managerial rights refers to the discretion an individual or group has in operating a water channel. This implies the right to decide when to open the channel’s sluice gates for irrigation or whether to open new exit points. Moreover, the manager has the duty to keep the channel clean and operative. See Chapter 6 for a more detailed discussion of managerial rights in the Chinese context.

principle of preserving the water infrastructure. It also shows that governing the common water requires specific, ostensible rules about the accountability of individuals or groups in relation to the management of the infrastructural network. How could we best think about these “reasonable” rules? Here I quote at length from Elinor Ostrom, who has advanced considerably our empirical and theoretical knowledge on institutions governing the commons. Ostrom defines rules as:

[...] shared understanding by participants about enforced prescriptions concerning what actions (or outcomes) are required, prohibited, or permitted. All rules are the results of implicit or explicit efforts to achieve order and predictability among humans by creating classes of persons (positions) who are then required, permitted, or forbidden to take classes of actions in relation to required, permitted, or forbidden outcomes or face the likelihood of being monitored and sanctioned in a predictable fashion (2005:18).

As we have seen in the above cases, the rules employed prescribe specific managerial positions (e.g. canal manager). When the duties belonging to such positions are neglected, position-holders are sanctioned and lose their managerial rights, or are asked to compensate for their shortcomings with extra work. In theory, the rules employed in such contexts are thought to be consciously agreed upon with the aim of coordinating activities and allocating tasks among different actors. One of these tasks involves monitoring whether the rules adopted are violated. If broken, sanctions are incurred due to the intervention of a relevant authority. To sum up, rules are agreed, outcome-oriented, enforceable prescriptions. In the next section I will show how, during the mediation of relevant cases, these types of rules are conflated with various other moral norms, which might have priority or appear to be more salient for the people who take part in the mediation of disputes.

Part II

Disputing the Commons

As we have seen in the preceding section, the rules in use in a water distribution system are instrumental to the perpetuation of the system and to securing water for the community. That is why, during mediations, negotiators are keen to uphold rules that preserve the

irrigation infrastructures by sanctioning undue disruptions, reallocating managerial rights or forcing people into collaborative supervision. However, for a finer-grained understanding of what rule designing implies in the management of water in a small locale, a broader look towards issues related to other common resources has much to recommend it. In what follows, I will give detailed descriptions of three disputes related to the issue of common resource management – grazing fields, forests and water channels – to show how resource-managing rules are mentioned only as part of a broader set of precepts, not strictly ascribable to an ostensible code of rules protecting the commons.

As I mentioned earlier, my informants referred to this broad register of moral and reasonable precepts as “customs” (*xisu*), while Chinese scholars usually prefer the term “customary law” (*xiguanfa*). It is within “custom” that the local practice of creating rules to preserve water access – known as “following reason” – takes place. Only that, within “customs”, other precepts live alongside it.

Here I will follow Comaroff and Roberts who, in a different context from that of China, have similarly addressed the problem of analysing customary bodies of norms. In reference to the Tswana “legal order”, they have called the local body of normative principles – regulating life from weddings to resource management – an “amorphous repertoire”, meaning a “range of norms widely varying in its specificity and in the value attributed to them” (1981: 72). Similarly to how the Tswana ordered their social lives and solved their disputes by making reference to these norms, my Chinese interlocutors invoked rules and moral norms in the attempt to bring about peaceful resolution, that is fair compensation when due, along with reconciliation between contenders.

Within this repertoire, the rules protecting the commons, while existent and very much valued, do not enjoy any extraordinary relevance for the people who refer to them during disputes. Notably, rules governing the commons share the same normative space with moral norms condemning disrespectful behaviour towards women or elders, and with those praising conciliatory practices which, if employed, could ease disagreements among kin and fellow villagers by supporting good “human relationships” (*renqing*) (see Yang 1994: 320-21; Yan 1996: Ch. 6; Kipnis 1997: Ch. 3). It is important to stress the continuity between rules and norms in my field site, because this can have consequences over the enforcement of the rules governing water management and the institutions operating on it.

a) Unbounded grazing

Pears Village “court” is a neglected, dusty 15 m² room located at the right-hand corner of the local Village Committee's building. Hanging over the entrance – a small red door no different from any other – a polished metal plate reads “Huize County People's Court – Circuit of Tribunals”. Another one on its right states “Huize County Department of Administrative Justice – Protecting Rights According to Law, Assisting the Weak and Helping with Problems”. Inside, six dark, wooden benches face the court's desk. Besides the formal dispositions of seating, the room does not contain any other visible signs of it being a court of law. Indeed, despite its name, this is not a court of law, but just the working room of the local MC.

One day, the Village Party Secretary Gao Zong, his vice-secretary, Old Brother and I were waiting in the “court” for what seemed to be hours. The day before, a young man in his twenties had asked Gao Zong to “mediate a thing” (*tiao shiqing*). They had agreed upon a meeting time, but the relatively poor condition of the various paths leading to Pearl Field had an impact on both parties' timeliness. Upon arrival Wenke, the young man, looked tense. He and his father dismounted the motorbike parked in front of the VC main gate, and entered the court, before standing in front of us. They were both staring at their feet when Gao Zong approached, asking them about their intentions:

“Now, you tell me clearly whether you and your son really mean to go to court (*fating*), or to whatever higher-level authority you may recur to.”

“Wait, are we not in a court already?” replied Wenke's father.

“No.”

“I do not understand”, the father said again, scratching his head.

“This is a Village Committee where we provide the first, obligatory level of resolution (*tiaojie gongzuo*). We take all the time we need to settle the dispute. After this, you can request a hearing from the administrative court (*sifasuo*) or the civil court (*fating*) in Crooked Cart City. However, if you go there you should expect things to work differently. The administrative court does as we do: it talks you out of the case (*shuofu*), going after reconciliation (*tiaohe*). The court is different: it follow regulations (*kao falü*). There you get your cases sorted in a matter of hours.”

To this diligent explanation, father and son stood silent, being distracted by the arrival of Qingmei, the other party requesting a hearing from the disputes resolution committee. Wenke and Qingmei gave just a brief look at each other sitting on adjacent but different benches. When Gao Zong was about to begin, a few other people finally entered the room, some of whom were senior Pears Field villagers, other just curious observers.

Figure 18: Pear Village's "court"



The case, as described in court by the Party Secretary and summarised in the negotiation's report was as follows: one day Qingmei was working on a strip of land she owned, located in a mountainous area not far from her home. Wenke was grazing his flock in the same area, when suddenly three of his goats entered Qingmei's plot, feeding on her crops. Qingmei tried to stop them, waving her hoe around, ultimately hitting one of the gluttonous goats. She subsequently started brawling with Wenke. Both of them claimed to have been severely injured during the fight. While Qingmei's wounds were still visible the day she came to court, Wenke did not show any signs of injury. Qingmei also presented a hospital invoice showing a payment of 2,300 RMB made by her family to cover the cost of the week she spent there recovering. After Qingmei recovered, she went directly to the Village Party Secretary demanding compensation.

During the meeting, Wenke's style of defence was aggressive. He first mentioned that three goats could not possibly do any serious damage to Qingmei's crops. Moreover, it was not clear where her private plot (*ziliudi*) bordered the common grazing land (*caoyuan de lianhu chengbao*). Gao Zong reminded him that three goats can actually be a serious threat to a farmer's harvest, and that the latter is the "base" of a Chinese farmer's livelihood. Afterwards, Wenke and his father claimed that Qingmei's injuries were less serious than she purported. For them, Qingmei over-reacted, implying that, being a woman, she misjudged the magnitude of the event, making a fuss of what was a banal quarrel between a herder and a farmer.

Apparently, the Party Secretary felt genuinely insulted by Wenke's sexist reasoning, and began lecturing him in a dry tone: "I'm not here to teach you anything boy, but it has been almost sixty years that women and men are equal in our China (*ninan pingdeng*). It is evident that you think the opposite. Do you know what Chinese women do for our country? They raise chicken and pigs, they till the land, they build houses. They also grow children such as yourself! Keep this in mind: Chinese laws says that this lady is your equal! (*Zhongguo falü guiding shuo ta he ni pingdeng*)." Noticing that his speech had intimidated Wenke, he then adopted a less aggressive stance: "You are a smart boy, Wenke. You will go to Kunming as a migrant worker, and this is a very good thing for yourself and your family. Men are fallible beings (*cuiruo*). There is no need to repay now: when you have the sum, you'll pay".

As Old Brother later on explained it to me, Gao Zong was trying to draw from Wenke a statement that could be later used as a proof of Wenke's intention of reaching an agreement with Qingmei. Had Wenke said, "Fine, I'll give her 2,300 RMB when I can", this could later have been used against him, ending the dispute with a quasi-binding promise of future compensation. Wenke and his father were not, however, an inexperienced duo. They held their position, arguing that Wenke was harmed even more than Qingmei, that they had proof of medical bills and that they should pay only half of the compensation fees. The dispute came to a halt. Both Old Brother and Gao Zong tried their best to make Wenke feel guilty and show regret, and to make him lose face.

"This is one of those cases that you should feel in your heart, boy. Don't you have any

virtue (*daode*)?” accused Old Brother. “Boy, there's no one here who believes you. If you don't have any clue what the law says (*ni renbuda falü*), it is your problem. It is not me being harsh, it is the law, and you should have known it!” When it became evident that the mediation would not lead to anything good, Wenke finally confessed that he did not feel he had been treated fairly by the committee and that he needed to appeal to the higher court in Crooked Cart to demand justice. Gao Zong did not take the boy's insolence lightly: “Yes, bring your lawsuit (*guansi*) to the tribunal, let's see how this story ends. But let me remind you of something: you've just lost your 50 *yuan* here to pay for a mediation that you wanted to fail from the beginning. At the administrative court, you'll have to pay not only for the service they provide, but also for having got one level above grassroots resolution (*jidi tiaojie*). You could end up paying thirty times more. Also there, the problem won't be just about repaying medical expenses, the laws on grasslands (*caoyuan*) and the one on flocks (*yangqun*) will also be enforced”. The boy was unimpressed, and left with his father.

b) Establishing a Forest Management Cooperative

A group of farmers, all kin, requested mediation from the BMF Village Committee. They had recently signed a contract for managing a piece of forest located east of BMF, in an area which, due to current changes in local policies protecting the local environment from subsidence, had to be spared from farming. The government leased the land to the farmers' co-op, which would manage the forests, keep its trees healthy and fell them when necessary for a salary. To do the job properly the government requested an initial investment from them. The three households involved had to put up 2,100 RMB each. The co-op's youngest member had to rely on his father to secure this sum. The father, however, had lately grown wary of the enterprise and first said he would give his son only 1,500 RMB. At a certain point, he decided to give nothing. The son had to withdraw his support, claiming that his relative had extorted his father's support maliciously, knowing that he was senile. They mistreated an elder (*nuedai laoren*) and this was unacceptable. The solvent party asked the MC to make father and son change their minds about cutting their support. They said they had the invoices (*danji*) proving their good faith and that they just wanted the co-op to work smoothly. Regardless of their good disposition, however, the mediation was not going well. The resentment among them was much more rooted than initially claimed. Master Du, realising that some prodding was needed, addressed them forcefully:

“You have already been incredibly faithful (*zhong*) towards the man. Now what you need to do is to try to save your relationship as kin (*qinqi de guanxi*). It is not just about the business you are putting together. What I ask you is to have another pinch of faith (*zhongzhenruyi*) and to fix this. Forget about this entry payment, put the money up yourself if you must, and go ahead! If you're not convinced try out the administrative court, see how it goes. What I need to tell you is that the result we can get here is in both parties' interests. Actually is the best solution you could ever get (*dui nimen zhe ge jieguo shi you zui hao you zui haoli shuangfang de*). Do not ruin everything here, insulting each other and losing your temper. Now that we've got it, do not ruin the aspiration to reach an agreement (*dacheng de yiyuan*), hold on to it! What could you expect from your co-op if you establish it on unstable grounds? (*xieyi de buwendixing*)”. Impressively, Du's speech obtained a result. The old man promised to issue a payment in a fortnight, and the two parties were sent off happily.

c) Keeping the water flowing

In the cadres' meeting room, located on the second floor of the BMF Village Committee, six farmers, three old men and three younger women, were in for a mediation session. The men smoked cigarettes in silence, casting a vacuous gaze over the scene. Master Du, Party Secretary L, Jia Di and Deputy Yu, the four components of the BMF Village Committee were all present. They all looked a bit tired and lost in thought. Party Secretary L, chairing the session from his comfortable armchair, firstly condemned the two parties, admonishing them not to leave the room without settling. “This is already the third time we've met to solve this thing (*gai shiqing*). We are the government's representatives (*daibiao*), and what we desire the most is that you fix this problem in peace and quiet”. The Secretary went on making clear that it was in everyone's best interest to deal with things locally, without escalation and the involvement of higher authorities. To back up Secretary L's reproach, Jia Di, a short-tempered man, theatrically left the room in overdone exasperation, claiming that he did not have time for such nonsense, that it was already the third time they asked for mediation, and if they wanted to waste other people's time – as they apparently wanted to – they should have gone annoying the tribunal staff, not them. Once Jia Di had left, the group started discussing how to satisfactorily solve their problem.

The matter at issue was “multifaceted” (*jixie fangmian*), claimed one of the women. It involved a new house being built too close to another one, the subsequent demolishing of the claimants' waste-water channel (*yingou*), and the misuse of the communal irrigation ditch that passed in front of both buildings. The old man inhabiting the newly built house used it as a garbage dump, polluting the water and stopping its free flow. To that the old man, accompanied by his son, replied that they were the ones “throwing filthy water” (*pozangshui*), a trope used to accuse the opposite party of slandering. The two parties began to quarrel, talking over one other. Secretary L and Master Du were having a hard time convincing them that they should be “wise” (*mingzhi*) and find a compromise and that they should “speak with reason” (dial. *koli*).

One of the women accusing the old man – the one more eager to find a peaceful resolution – stated that she had been requested by her own community – incidentally, the same as that of the old man – to “supervise” (*guan*) other people's behaviour in matters of public concern. How could the old man say she was a slanderer (*feibangzhe*) just because she was doing what had been requested? Had Master Du himself not pleaded with the community to “take care” (*ziliao*) of their own petty business? How was it that she was now discredited for doing precisely that? “You are doing a very important job (*renzhong*), but you should remember that what is even more important is to preserve the good feelings (*haoganqing*) among the members of the community!” glossed Du in response. The mediation eventually ended when one of the complainants stated that she would drop charges if someone from the Water Bureau came in the following days to inspect the waterways. She would happily retract her accusations if proper measures were taken to confirm she did not speak ill of anyone.

To understand how these three cases and the principle invoked therein differ from the rules we encountered previously in this chapter, I draw from Jon Elster's definition of (moral) norms¹⁰⁶. Moral norms differ from rules because they are, in their ideal form, not agreed upon, not outcome-oriented and difficult to enforce. The opposition between rules and moral norms can be analytically presented as the former saying: “if you want to achieve Y, do X”, whereas the latter are of the type: “Do X”; 'Don't do X'; or 'If others do X, do Y’” (Elster 1989: 98). “If you cannot manage the canal, your neighbour will,” is an example of

¹⁰⁶Elster uses only the term “norm” to describe this type of normative principles. To distinguish more clearly between norms and rules I here prefer to qualify norms as moral, as opposed to the “reasonable” rule encountered in the previous section.

a rule; “Respect the elder” is one of moral norm. The former are forward-looking instrumental prescriptions, the latter order-preserving, moral precepts. The cases presented in this section all show how moral norms actively inform the disputes process, even when disputes are about the management of common resources. Mistreating a woman, mistreating an old man or slander are unacceptable moral behaviours to which the mediators immediately draw attention in their quest of maintaining “human relationships” (*renqing*) between disputants. Because of the saliency of the moral norms condemning such behaviours, issues pertaining specifically to common resources are likely to be outweighed. Having arrived at different analytical concepts of rules and moral norms, I will now move to discuss what happens when they clash during mediation.

Rules vs Norms

For this discussion, three relevant issues stem from the observed cases. When moral norms regulating social relations are conflated with “reasonable” rules organising a resource management system – as happens in Crooked Cart – it is difficult to avoid a clash between competing principles. Take the last case as an example. While the complainants were seemingly there to punish the old man for having disrupted a common property (the water channel), the mediation resorted to the problem of vilifying an old man, of making someone lose face in front of the village leaders. One of the women accusing the old man clearly saw a conflict between her duty as a guarantor of her neighbourhood's water facilities – which would imply some sort of punishment for the wrongdoer – and the norm of “giving” face to individuals of one's own social circle, even more so if the other is an elder. The result was that the woman was far more concerned with “cleaning up” her reputation, than about the actual conditions of the water channel. Something similar could be said for the case of the forest co-op. For the two households accused of mistreating an elder, it was indeed difficult to accept the fact that, in order to establish a partnership, special guarantees in the matter of membership had to be accorded to a member only on the grounds of him being an elder.

Roberts and Comaroff refer to the ranking between different competing principles as a form of “situational precedence” certain norms enjoy for the people who follow them (1981: 78). When debating competing principles, some are simply more salient than others. In the Chinese context, where Confucianism has long preached that social

relationships are morally ranked and that the father-to-son is the most sacred one (e.g. Wolf 1994: 251; Ames 2011: 167), it comes as no surprise that deference towards one's parents, and for the elders more generally, should have precedence over rules regulating the sound management of water infrastructures.

Secondly, disputes over common resources are shown to be about much more than just their rational and fair management (see Chapter 3 for a similar point). The first case is here at issue. As legitimate as Wenke's reproach about the fuzziness of the grazing land's boundaries was, it went understandably unheard in view of his sexist behaviour. Wenke's attitude and his confrontational stance towards authority immediately became the bone of contention, and Wenke was not further questioned about the size of his flock or the consistency of his herding practices with regulations over pasturing. He was scolded, yet not punished, because he behaved as a sexist and violent man. If benefits to the management of that particular plot of land had come from Wenke's case, then these would have been squarely in the order of unintended consequences, and not the intentional outcome of rule enforcement.

The third and final point is that dispute managers employ rhetorically any possible means to subdue offenders through shame, while preserving as much as possible the pre-existent social relationships between the contenders. They do so knowing that they have limited power in matters of punishment but thinking that reconciliation achieved through negotiation is much better than punishment by law. In matters of water management, we have seen that customary solutions contribute to the maintenance of the water supply in a context of subverting economic transformations. However, the style and "inclusiveness" of mediation does not help isolate behaviours detrimental to the efficient management of a common resource from those that are only tangential to it. This is shown best by the enforcement of moral norms. Theoretically, norm enforcement, as opposed to rule enforcement, does not imply the alteration of one's rights in relation to others, as in the case of managing collective water infrastructure, but it is about less explicit forms of punishment (cf. Elster 1989: 131, 2009). In *Crooked Cart*, avoiding the norm-violator or subjecting her to the moral judgement of others are widely adopted strategies to correct behaviour. In other words, the cost put on the violation of rules is the loss of managerial rights over water infrastructure, while the cost of norm violation is the loss of "face".

Very often, however, because the violation of moral norms appears to be culturally more relevant to the people taking part in mediation, rules governing the commons end up being disregarded, meaning that it is difficult to know how effective their employment is. Other times, instead, it is the mode of enforcement of moral norms – shame, guilt and contempt – that is adopted to make rules stick to habits, with as yet unclear results.

Part III

Enforcing “Reasonable” Rules

For my interlocutors, one feature of “customary law” is that it does not involve strict punishment for violators. In the case of principles regulating water management, there are two reasons why this is the case. First, it is difficult to constantly monitor violators of rules regulating the management of a common resource due to the intrinsic nature of the violation; and second, as we have seen in the preceding sections, locally these principles are thought to work through spontaneous agreement, and not if imposed through coercion. In fact, there were many occasions on which I was told that to “follow reason” does not imply coercion (*qiangzhi*) but just conviction (*shuofu*). On the contrary, the rules invoked in a court of law have a power that no middle-men, dispute managers or village cadres could ever dream of having: the power to be enforceable (*panjue* or *panchu*). As dispute manager Nian put it to me once: “The difference is that in tribunals they have ‘enforcement rights’ (*zhifa quanli*), while here we don’t. People from whom we request compensation usually go to the tribunal wishing to overturn our ruling, only to find out that, once there, they are forced to pay”.

For many, the fact that VCs enjoy only counselling powers meant that it was always possible to discredit the working of rules as advocated by the local dispute managers. One day a man, who was fighting with his wife in the middle of the road leading to BMF VC, taunted Secretary L who was trying to “make him see reason” (*ting liyou*): “Do not meddle! Call the police, if you dare!” Individually, village cadres are accorded with very limited power to enforce public order, and to provoke a cadre in such a way is nothing but a way to discredit him as an authoritative figure. Because of that, village cadres usually wish to be seen as firm, resolute and impartial individuals who stand above the pettiness of

rural life and provide guidance to the people. It is the acquisition of a moral standing that legitimises cadres' appeal to moral norms, making people comfortable with following them and giving restraining power to mediation by the village cadres.

In Crooked Cart, however, it was never easy to win such respect. Secretary L, for instance was seen by everyone as an honest, solid man (Dial. *zidao*, Ch. *laoshi*), albeit too weak (*ruanruo*) for the role he performed. What he lacked – people murmured – was the harshness (*yin*) needed to impose his will on others. In addition, not all villagers were ready to abide by shared moral norms, not to speak of those flouted by those acting in an official capacity. The Five Star County Secretary once commented that: “In every village 5-10% of the people are ‘unruly’ (*diaomin*). These people cannot be controlled anyway. They take water without permission or damage infrastructures just for the sake of it. For them government and rules mean just one thing: a fraud. They are the greatest obstacle to the functioning of rural society today”. While I could not safely establish whether this alleged unruliness was more perceived than real, it remains true that local authorities were facing the problem of how to deter assaults on public utilities and took pains to devise methods for regulating villagers' conduct.

This is particularly true for water use and its distribution. During my stay, I travelled the length and breadth of Crooked Cart Township's countryside with the WEO workers, investigating wilful disruptions to the local water supply. Four times the WEO's staff unearthed severed distribution pipes and replaced them without any hope of finding who was responsible. The motivation behind such acts was often clear. Alongside irrigated agriculture, water was used in Crooked Cart in the fish- and shrimp-breeding industry. The breeding-tanks in use were concrete boxes requiring a constant inflow of fresh water providing sufficient oxygen to the aquaculture. Even though it was difficult to estimate the amount of water this industry consumed compared to irrigated agriculture, many farmers saw it as an important factor endangering the livelihood of local farming families (see Chapter 6), as it was competing with them over a crucial production input.

Along with attacks on the water supply network, there was also the problem of preserving communal sources of drinking water. These sources were state-provided, groundwater access points scattered around the perimeter of Crooked Cart's old town, originally opened to secure a source of drinking water when it was in shortage elsewhere. They were opened

early in the 1960s and some of them were still in use while I was on fieldwork. However, to ensure that these points could be kept alive and the water plentiful, some form of monitoring and sanctioning had to be factored in. The story of how Old Z and I wrote a “cautionary sign” to restrain farmers from collecting water from one of these access points is telling of how rules regulating the use of common resources differ in my field site from the concept of rule given by Ostrom, resonating instead with Elster’s notion of (moral) norm.

Old Z and I departed that day from the Water Bureau as he had promised to bring me to one of the few communal water pools still in place in the old city. Before taking the small trail that would eventually lead to the pool, we stopped by the market, buying a brush and a can of crimson red paint. The communal pool lay amidst some luxuriant lima bean fields, located right behind the local government building. At the front doors of many farmhouses along the way, sleeping guard dogs were chained. Old Z warned me that this silent section of the village had experienced a series of thefts and the home owners had finally decided to protect themselves with dogs. We finally arrived at a small outhouse. Its metal door was secured by three different locks, varying in size. The biggest was the size of my hand. Inside, the lapping sound of moving water emerged from a black hole in the ground. An electric water-pump, old and rusty, rested near the hole.

Old Z explained that the monitoring of the pool had been subcontracted by the Water Bureau to a private citizen, who had the responsibility of protecting it from undue withdrawals, only that it was an incredibly difficult task. “This water has to be available during drought periods. We thought that if we put someone living close to monitor it, it’d be less easy for abstractors to come and go as they like. This water has to be protected from inefficient use (*luanyong*). But the guard is not doing a good job, and the locks have been broken several times already. People just come in and take it (*na chulai*), they don’t understand what would happen if everyone behaved likewise”. He then started writing with the brush on the metallic door, drawing what looked like a warning in big red characters. It read: “It is severely prohibited to break in and get water. Violators will bear full responsibility of the consequences (*yanjin qiaomen jinru chinei qushui – weizhe hougou zifu*)”.

The final part of the warning, about assuming full responsibility (*hougou zifu*) struck me as

odd. The formula did not provide any explanations as to what would happen to someone caught on the premises. It was also common to find the very same expression at the end of the forms usually compiled by Mr Nian. “What sort of consequences should one expect from being caught?” I asked Old Z. “Do you think that such statements work in preventing violations?” – “It definitely makes things better. It makes people behave themselves (*ziji guan tamen de shi*). To put this sentence here means that people should watch other people's behaviour, watch over what they do and how they do it. In China if there isn't anyone saying what should or should not be done, people just behave carelessly. This morning I was here and some woman was taking water from this pool. I told her that it was prohibited to do that. She started making excuses, saying that the drought has come back, that her family needs more water, etc. People just do not know how they should behave”.

For Old Z, warnings are needed to hold one individual responsible for another, one family responsible for another. Old Z's idea is that identified violators would be ostracised were they repeatedly seen taking water from a pool which had been formally protected by the authorities. Whether his belief found some basis in empirical observation is difficult to say, even though material covered in Chapter 5 suggest that a least some farmers have come up with alternative methods for securing domestic water, creating de facto a distribution system alternative to that of the state, thus bypassing entirely the problem of policing fellow villagers' abstraction attempts.

Figure 19: Old Z. writing his warning



In Crooked Cart Township, rules governing water access – such as protecting a water pool from overuse – are not only arrived at via the mediation of disputes but are also created through extra-mediated means. It is outside mediation that their enforcement appears difficult and vague. In fact, their application seems to be based on the triggering of guilt and shame in the violator. In this case, rule enforcement is not backed by the threat of coercion (i.e. the legitimate use of violence to punish) but by the gaze of morally charged onlookers. Here, the efficacy of rules is thought to rest in the assent that individuals would give to norms whose violation is imagined to induce shame within the violator and contempt in everyone else. However, because shame is contextual, that is it depends on how one is expected to behave according to status, skills and conditions, rules working like those encountered in this section are intended to mean and prescribe different actions to different people. The same goes for their violation: the supposed sanctions will vary according to the role of the violator. Material from structured interviews carried out with officials regarding how they interpret the national framework governing water resources and its moral implications will drive the point home.

Thinking through the Morals of Water Use

In these interviews, a real-life scenario was proposed, individually, to Party Secretary L, Old Brother, Old Z, Master Du and Mr Nian. The scenario¹⁰⁷, drawn from a local gazette, saw the Head of a township-level Water Bureau embezzling a huge sum of money from the local irrigation water fees. The Head had spent the embezzled money acquiring properties for himself and his family. The scenario then moved to describe the allegations he faced in the local court, listing a series of administrative crimes he committed in legal jargon, along with the stipulated sanction for said crimes. The damage caused to the local community in withheld investment was also given. After finishing reading the case, I would ask a set of questions to my interlocutor: “Is it wrong what the Head did? Why do you think he did it? Would he have had a reason for what he did? Whom does his action affect mostly? In your opinion, is the ruling fair?”

After discussing the questions, I would present a second case, this time hypothetical, traced from the previous one. A few things were different this time. The main character was a

107 See the Appendix to this dissertation for the Chinese version of both scenarios.

farmer. He or she did not steal money but, through an illicitly privately-owned pipe plumbed in to the supply network, a considerable amount of water. The farmer was then found guilty by a local tribunal and sentenced to a similar punishment, implying monetary penalty and a period in jail. After the second round, I would ask the same questions as before, adding a request for comparison between the two cases: “What is the difference between stealing money or water? Who owns water? Who owns the money? What would happen if the roles were inverted? That is if the farmer had stolen money, the Head water?”

In terms of this chapter's discussion, several interesting things emerged. First, all the participants said that what would have suffered most from both the Head's and the farmers' actions would be their families' name (*mingyu*). This is because shame would eventually fall on all family members, making everyone shun them publicly. This is to say that the greatest part of the sanctioning would come from informal mechanisms similar to those mentioned by Old Z. Four interviewees also mentioned that for the Head to commit such a crime – regardless of whether it was about money or water – it would be much more disgraceful a deed. Secretary L said that for such a man to indulge in that behaviour would cause ‘everlasting consequences’ (*yi shizu cheng qianguhen*). It would not be the same for the farmer, who was probably poor and little aware of what was requested from him (*wenhua suzhi tai di, bu zhidao zenme chuli*).

Norm violations committed by farmers would affect only individual members of society (*meihuren*). Those committed by officials, however, have an impact on society as a whole (*gongtong/guojia*). Concerning sanctions, all agreed that for the Head, the punishment should be ‘exemplary’ (*shiweixing chengfa*), as his or her deed sullied the nation. This was also the case even when the Head stole water instead of money. Sanctions for the farmer varied. One person asked him to repay a symbolic fee, others the entire water lot according to the price of irrigation water. A third possibility mentioned was to subject him or her to ‘education through criticism’ (*piping jiaoyu shi shidang chufa*), a punishment similar to that encountered in Chapter 4.

Master Du argued that “public morality would condemn both” (*gongde qianze*) but that the first case was “bigger” than the second (*shiwu da, shiwu xiao*). Old Z added, “What the Head did is prohibited by law, there's no justification possible. On the other hand the farmer, what harm can he do? There are only local guidelines (*difang guizhang*) and group

rules (*huigui*) that can be followed to prevent waste (*lanfei*). The first case is ‘big’, it is a matter of external conflict (*waibu maodun*), the second case is ‘small’, a matter of internal conflict (*neibu maodun*)”. All were keen to stress that both crimes did not solely amount to rule-breaking behaviour (*wu daoli, weifa weiji xingwei*) but that they both signal a lack of individual moral virtue (*wu daode*).

Finally, Old Brother gave a different, more engaged, discussion of both scenarios:

First of all, the first case. In China we say: ‘to be poor and get rich is easy, the opposite, difficult’ (*you jian ru she yi, you yi ru jian nan*). The lust for money is no excuse for committing crimes. Everyone has her own life experiences, sometimes life is very harsh on you, yet this does not amount to a justification. The second, another Chinese saying explains this well: ‘a dam of a thousand *li* may collapse due to an ant’s hole’ (*qianli zhi di, kui yu yixue*). Small, harmless individual actions can lead to great, harmful collective losses. For the first kind of behaviour, you need rules (*guiding*). With that sum, one might have built 200 km of canals! And think of what the Head has truly stolen as well. From the point of view of real harm, you can say that what the farmer did is more serious, but from the point of view of the possibilities (*qiantu*), the Head did a terrible job. With that money, he could have done a thousand things for the common good. For the second kind of behaviour however, you don’t need laws, you need education (*falu buru jiaoyu*). Think carefully: poor people are always in the position of breaking the law: why is that the case? What is important, in the second case is that what caused it is not envy but need.

From these structured conversations it can be argued that principles regulating common resources – the rules emerging from third-party mediation as well as those Old Z was trying to enforce – are in China not easily distinguishable from moral norms, at least in relation to their enforceability. Punishment – carried out by common people who will deny acquaintance with and revile the rule breaker – applies differently to differently positioned individuals. Insofar as the breaking of rules triggers – out from the resolution files into everyday life – modes of punishments similar to those when moral norms are violated (i.e. shame), it can be said that rules and moral norms behave similarly. Interlocutors also hinted at the fact that, if formal laws (*falu fagui*) have to enter the picture, these will be applied only to the Head, not to the farmer. That is to say that less is generally expected from farmers. This is why, in the management of Crooked Cart’s common water resources, rule-breaking, rent-seeking or destructive behaviours by farmers are, when addressed,

usually accommodated with conciliatory, rather than punitive, measures.

Conclusions

This chapter has analysed the roles that moral norms and rules play in the distribution of Crooked Cart's water resource and in the maintenance of its infrastructure. In relation to this, fieldwork made a series of aspects clear. Rules for preserving common resources – water and its infrastructures – emerge and are crafted during mediation sessions. These, however, are not the same as laws. Rules emerges and are perfected during mediation, not forcefully imposed in tribunals, and thus they are conceived to be the result of facilitated discussion. Water management rules are a product of the active participation of contending parties in a locally defined and imagined normative space where both water-related grievances and their solutions find their legitimate place. This space enlists different roles and distributes power unequally. Yet, from the perspective of the distributional systems, its enactment produces factual protection of the water infrastructures, resulting also in the protection of the access to irrigation water, and genuine concerns about its maintenance.

A scholarly literature has recently developed from the ethnographic encounter with the Chinese state and civil society's preoccupations about a degraded environment (Tilt 2010; Lora-Wainwright 2013a; 2013b; van Rooij 2011, 2012; van Rooij et al. 2012). This literature usually approaches the question of societal control over common resources from the point of view of what laws and regulations can or cannot do to redress people's demand for environmental justice. Here, Chinese citizens stand against the interests of “big polluters”, industrial corporations or corrupted local cadres turning a blind eye to wilful damage to common resources. This chapter, instead, took a different route. It presented cases when locally fashioned, customary rules can be said to protect a crucial component of a habitable environment such as water against small, individual ineptitude and without recurring to formal laws.

Taking this route, the chapter has investigated the ideological distinction between rules and moral norms that is being made salient in contemporary rural China. This distinction is partially due to the recent attempt by the central government to heighten the legitimacy of the judiciary, as part of a reform of the state's structure that aims at making the administration more accountable to its citizens. As many scholars of China have

documented (e.g. Zhu 2000, 2009: 31; Xiao-Planes 2009: 38; Huang 2010: 155; Brandtstädter 2013: 336), the introduction of a multi-tiered legal system has been realised within a discourse opposing the law to rural customs. This distinction has also been internalised by many people living in the countryside. Strictly enforceable, outcome oriented rules belong to the court systems, while dialectic, morally grounded norms are part of the traditional Chinese culture. As I made clear in other chapters, local customs in contemporary China are usually vilified by the urbanised elite. A closer look at what mediation actually achieves, however, helps unpack this ideological, custom-bashing narrative, allowing us to see how in rural China, not only are “backward” and “feudal” principles bred, but also “progressive” and “sustainable” rules effectively crafted (Pia, forthcoming).

We are thus left with a triadic relation between state laws, customary rules and norms. As opposed to customary rules, state laws are seen as outcome-oriented, not agreed-upon enforceable prescriptions. During mediations, this idea of state laws is often intentionally deployed as a rhetorical tool, used to instil fear in the unruly party and perhaps ease the road towards settlement. However, according to the MC members, it is never by threat that disputes can be solved, but only by practising “reason”. In matters of water and other common resource management, this is a strong political claim on their part. In fact, they claim that to achieve sustainable and fair distribution of common goods, one should discuss case by case, and patiently apply reason. For them no state-enforced, punitive mechanism to deliver justice could ever substitute the long-lasting effects one achieves through discussion, rooting rule compliance, as it were, in a self- and other-regarding moral attitude.

Overall, third party mediation does play an important role in the factual distribution of water in the locale, and in the reproduction of the institutional and material system that makes it possible. The customary rules fashioned by mediation are, however, usually understood by local people as non-binding, not easily enforceable: they would work through moral suasion and induce shame if violated. That is, they look at them as if they could be contained in the broader repertoire of norms – locally called “custom” (*xisu*) – they encounter daily when discussing how to treat others properly or how to behave morally. To operate infrastructure correctly is just one of the many calls to rectify behaviour – to act “virtuously” as Old Brother told Wenke – which villagers hear every

day, yet constantly shrug off.

Thus, the ideal-type line I drew between rules and moral norms, based on Jon Elster and Elinor Ostrom's work, appears eventually to be a fine one. Following Comaroff and Roberts, it could be argued that customary rules related to resource management are part of a “repertoire” that enlists a series of prescriptions not directly related to water use, allocation and distribution. When debated during mediation, the former “compete” with alternative moral injunctions, being easily undermined by norms that, for whatever reason, are deemed to be more meaningful. Treating an elder properly could be morally more compelling than managing water effectively and, thus, when an elder behaves in ways detrimental to the management of the common resources, it could be difficult to amend them. Lastly, because of their contiguity, when rules protecting the common water from depletion need to be enforced, modes of punishment linked to moral norms – i.e. shame-triggering – are likely to be adopted, in favour of more practical solutions like the reallocation of managerial rights seen in the documented dispute cases. This eventually leads to a patchwork rule enforcement of unclear efficacy and characterised by unequal treatment.

In conclusion, the findings of this chapter should sound both reassuring and alarming. To scholars of the Chinese legal reform, who see the forceful introduction of the law in the countryside as doing away with “traditional” methods of making justice, my objection is that these methods are very much alive and, if anything, are informing Chinese law, not being wiped out by it. Yet, to analysts of common-pool resource management, confident in the ability of decentralised actors to afford fair and efficient management, I submit that the ethos of resource preservation is neither the only, nor the most relevant one for the people who govern water delivery systems. Alternative normative frameworks encompass resource management tasks, inevitably affecting how these will be carried out.

Conclusions

I wish to conclude this thesis with the Chinese proverb quoted by Old Brother at the end of the last chapter: “A dam of a thousand *li* may collapse due to an ant's hole”. Water management is a collective endeavour whose grandiosity – very much like that of an underground ant nest – is never fully in view. As the tunnels and chambers of an ant nest intrude into the soil, the physical and institutional infrastructure of water permeates and innervates social life. Yet, just like an ant nest, which can be wiped out by a heedless human foot, the constant, collective project of storing, channelling and distributing water to fulfil human desires and needs is fragile. In contemporary China, water will reach fields, households, schools, and business and then return to nature only as long as its citizens find ways for this to happen.

This thesis has investigated the human project of distributing water in contemporary Chinese society. It has studied various technical solutions, but also the highly contested political imperatives and debatable ethical commitments, thanks to which Chinese waters are made available to people living in the drought-prone, north-eastern area of Yunnan Province. Against rising domestic and international preoccupation with an impending water-poor future for China, this thesis has shown that many – inside and outside local government – are working to keep the water flowing to meet local needs. Remarkably, the work Crooked Cart's people do on water is not in the realm of mere manual work – carrying water in buckets up and down a hill – but it is politically and intellectually sophisticated, creative labour. Local villagers and officials in fact envision rules, canal systems and regimes of political accountability that are designed to keep water available and its distribution fair in their community. To achieve this, they often need to oppose but also integrate the state and actively vouch for alternative, less technical, more humanistic ways to manage the common waters.

Thus, this thesis has been particularly interested in the critical-complicit engagement of Crooked Cart's people with the man-made production of a water “problem” in their community. The fairness and maintainability of the collective project of water management are the political and technical parameters constantly being negotiated, rejected or recomposed by the creative and active participation of local villagers and officials in the local production of water access. In relation to this, here I want to finally stress the three

main anthropological contributions this thesis has sought to provide to the interdisciplinary and broadly defined academic field of water studies, and in particular to the study of water politics, of human cooperation and the state.

First, my analysis has offered insights into both the small- and grand-scale analysis of human-to-water relations. From the point of view of “small-scale” studies of grassroots resource management, this thesis provides an unusual account of the role played by local state agencies. Indeed, the notion of “community” employed by the above-mentioned scholarship usually shields from view – when it does not openly reject – the crucial work undertaken by the local state and by the people who animate it. When water is hard to find, local communities do rely on the resources and knowledge of local state agents to obtain relief. Conversely, the thesis also moves a critique of the notion – proposed by some “small-scale” studies (Wade 1988; Shiva 2002; Narain 2006) – that communal management at the local level could provide a model for water management on a bigger if not on a global scale (see Bakker 2010: Ch. 6; Nadasdy 2005). Crooked Cart's village communities often fall short of acceptable practices of water management, being rather responsible for many of the shortcomings (e.g. canal leakages) that they then set out to solve. Working towards a rebalancing of the debate on who has to be credited as the most “environmental-friendly” actor of global environmental politics – the state, the market or the local communities – represents, I contend, a necessary step in the discussion of how to find equitable and sustainable solutions to future water challenges.

On the other hand, this thesis enriches “grand-scale” studies of water, and of its man-made flow, as a mediator of political and social relations. It does so by studying in detail the various idioms of resistance and avoidance, but also the various counter-practices that Chinese villagers put to work in the face of structurally produced dispossession. In this respect, the Chinese countryside appears to be an unparalleled field for social research on water, as its history of radical social revolutions and experimentations has made its inhabitants dramatically aware of the intricacies of collective challenges, but also remarkably engaged with the quest of putting alternatives into practice. It is at this level of analysis that the distribution and circulation of water appears to be a cooperative endeavour, where the state, decentralised institutions and common citizens are all involved in, yet not equally responsible for, the enduring and fair circulation of water across a network of users.

Second, this thesis has contributed to the understanding of cooperation in water management. In China, the progressive abandonment of supply-side planning is similarly producing the abandonment of the idea of universal access and uniformed development. Aihwa Ong has noticed that the “opening reforms” in China have ushered in a new set of administrative techniques targeting specific geographical areas as recipients of state services and investments, while excluding others (Ong 2006: 3-17). This is nowhere more apparent than in the case of the development of water infrastructure in the area investigated in this dissertation. Here, rural peasants are being deprived of drinking and irrigation water by the failure of under-performing utilities, which in turn are commonly available for urbanities. In turn, rural dwellers are prompted to cooperate with one another and to assume more responsibilities in terms of affording water access and making water use more socially and environmentally sustainable.

With this thesis, I wanted to show the afterlife of the social scientific concept of “cooperation” in global water politics. On the one hand, I have made wide use of “cooperation” as an analytical concept – in the footsteps of the Institutional Economics pioneered by Elinor Ostrom – to study the collective effort of managing water in Crooked Cart. This has allowed me to raise some important questions for the scholarship of human cooperation (Ostrom 1990, Bicchieri 2006, Guala 2012), in particular in reference to how this scholarship thinks about collective action and about the role that communication plays in it. On the other hand, I think I have been able to show that today the term “cooperation” is adopted by various international agencies and the Chinese state as an ideological tool to unhinge old-fashioned, bureaucratic practices of resource allocation and distribution, and to promote instead the autonomous, unassisted governance of common resources at the local level.

In this effort, the Chinese water sector is making use of Ostrom's theory of the commons to advance further the depoliticisation of state provision in rural China. By popularising a simplified version of Ostrom's ideas – a deterministic set of behavioural rules that would engineer sustainability as if by magic – Chinese water experts are eagerly adopting a market-based critique of state welfare which suggests that local communities need to be mobilised and their resources actively invested in the production of local public goods, water supply included. Thus, while WUAs might, to some extent, be viewed as a return to

the self-government ideology in vogue under Mao, the Chinese state is vouching for them on an entirely different basis, namely, that at the periphery of the Chinese economy, one should live according to the standards one might be able to achieve by one's own effort alone. My ethnography lays bare the conditions of poverty and suffering that people in Crooked Cart experience, precisely because of this ideological water reform.

Against the view advocated by water sector reformers who support whole-heartedly the introduction of Ostrom-modelled WUAs in China (Sun 2009; Gao 2006; Wang 2007; Wang 2006a: 328, Wang et al. 2010), this thesis has advanced a two-pronged critique. First, WUAs may not produce the environmental and economic gain their proponents claim for them. Second, Chinese citizens living in the countryside do not need to be liberated from their "backward past" and "low-quality" present through the introduction of cooperation-boosting farmers associations. Crooked Cart dwellers are already able to organise themselves collectively into water redistribution networks and to contrive progressive rules to the sustainable management of water, even though these might not be consistently enforced.

In their quest to keep the water flowing into rice paddies and households – flowing to meet local needs – Crooked Cart villagers actively envisage counter-practices and engage with alternatives to the management of water as a technocratic project. For one, in Crooked Cart, the pursuit of a "good society" and "good human relationships" are constitutive of and not tangential to the project of securing access to water. Thus, in bringing humans to the fore of the water exchange, and by reclaiming "rules of the game" that are designed to keep the flow of water accessible and inclusive of all people sitting at the water table, Crooked Cart dwellers envisage the possibility of a humanistic – as opposed to technical or elitist – approach to water management, one that is there "to serve the people", as the popular Maoist motto puts it.

In telling the story of how water keeps running – against many odds – in today's rural Yunnan, I have made sparse but steady reference to Maoism and its legacy. In doing so, I have merely mimicked the way in which my own research participants usually talked about, celebrated, discussed or dismissed that particular period of their youth. While many of them had surely been too young to genuinely engage with – or even remember for that matter – the core tenets of the Maoist thought and the experience of living through

socialism, this does not mean that this particular radical vicissitude has left no trace in Crooked Cart's social memory. Water infrastructure, as discussed in many different chapters, bears witness to a past of collective endeavours for the public good and of radical, when not coercive, engagement with public life and politics. True, many feel alienated and embattled by the memorials of the socialist past with which the local environment is replete. Yet, when solutions to local problems are sought, the memories of the Maoist past come back to indicate to common people and local officials scenarios informed by political participation and constructive dialogue – things that are becoming less and less sought-after in the technocratic political panorama of contemporary China.

Looking at what common people do in concrete terms to support their own communities and families, this thesis (in particular chapters 3 to 7) has taken on board and has been constructed in dialogue with the theoretical positions and political analyses of anthropologists currently perpetuating the “Maussian” legacy, such as Chris Hann and David Graeber. By “Maussian” legacy I here refer to two main points made by Marcel Mauss in his classic study of the gift, and consciously taken up by the above-mentioned authors. First is the point that, through the circulation of resources (cultural and material), humans aim at expanding society, that is they aim at bringing people together in enduring relational patterns rooted in freedom *and* obligations. Second, organised human reciprocity can take the form of organically conceived forms of association such as the state, municipalities or welfare institutions. This means seeing organised human action as a participative project of association, a political movement to organise long-term, trans-generational systems of redistributive reciprocity across social groups (Mauss 1990 [1950]).

In discussing water management as an *active* and *collective* project installed and advanced by human relationships, this thesis has consciously employed the vocabulary developed by the above authors and by others of similar persuasion (e.g. James C. Scott, Andrea Muehlebach, Karen Bakker, with caveats the later Jon Elster), to talk about society as an unfinished, renewable historical project that needs to be constantly remade. Providing water for human consumption is simply one component of the broader human project of living together which these authors have so compellingly written about in many of their contributions (e.g. Hann 2007, 2009, 2010; Hart, Hann 2009; Graeber 2001, 2009, 2010). In the attempt to pursue this cooperative project, the people taking part in it establish and

reaffirm the importance of human relationships and imagine a differently organised society where water could be available to all. To this strand of work in the humanities, however, my thesis offers a word of caution about the often uncritical hostility it displays towards the state (e.g. Scott 1998; Graeber 2002). As an institution made of and animated by humans, the state (in its co-acted manifestation) may well be seen as a repository of solutions to collective action problems and as a provider of irreplaceable goods for the underprivileged.

As my study is also an ethnography of rural China, this last point should be read as an addition to recently published anthropological and political science studies that analyse the moral and ethical landscape of contemporary village life in China (e.g. Flower, Leonard 1998; Thireau, Hua 2001, 2010; Feuchtwang, Wang 2001; Feuchtwang 2003; Yan 2003, 2009, 2014; Flower 2004, 2009; Oxfeld 2010; Pieke 2010; Brandtstädter 2003, 2011, 2012, 2013; Pirie 2013; Steinmüller 2011, 2013). Life in the contemporary Chinese countryside cannot be reduced to one of disenchantment, cynicism, parish-pump politics and self-centred yearnings. Direct participation and a dedication to the common good are equally important forces motivating those who live in the countryside.

Lastly, allow me to depart from the various anthropological debates covered here and to briefly relate my work to a recent concern within the study of China over the current nature of the Chinese state. As I have explained throughout the thesis, the demand-side approach now adopted by the Chinese water sector is slowly replacing the traditional supply-side mentality. This approach hinges on technical solutions whose more or less explicit objective is to dislodge history-laden, popular expectations about the role of the state and its obligations towards its citizens. In light of similar ethnographic findings, it has been recently debated whether the Chinese state is currently changing its relations to the rural periphery and the Chinese society more generally. A movement variously described as “liberal”, “neoliberal”, “post-”, “late-” or “neo-socialist” (see Zhang 2001; Ong 2006; Kipnis 2007; Ong, Zhang 2008; Wang 2009: 17-23; Pieke 2010; Mertha 2009). Visually, some authors have talked of a “retreat” or “withdrawal” of the Chinese state from its responsibilities (Lin 2006: 183; Duckett 2011). By investigating ethnographically the practical consequences of the Chinese water sector reform, and by showing how, when the state “retreats”, local state agents still need to find ways to carry out their job, this thesis has intended to portray this “movement” as a type of duet bringing together the state and

the local communities in the form of co-actions on public services.

Thus, similarly to what has been argued by several anthropologists who have contributed to this line of inquiry (Zhang 2001: 204; Ong, Zhang 2008: 4-5; Kipnis 2007, 2008), the reconfiguration of the Chinese state (and especially of its water sector) is only partially enacting a “retreat” from society. Rather, the Chinese state appears to re-articulate its presence in the “unprofitable” countryside, with local state agents and local villagers becoming key partners in the reproduction of local institutions and state functions at the local level – in a fashion similar to that of the pre-modern era. Precisely because the local water bureaucracy is now more fragmented and poor, it has to rely on common villagers to maintain its presence at the periphery of the state. Here, the most striking resemblance is with the political rapport entertained by Indian squatters and their urban governments described by Nakhil Anand (2011) and Partha Chatterjee (2004). In the “inescapable conflicts” between a technocratic government’s policies and the “messy, contentious, and often unpalatable concerns” (Chatterjee 2004: 77) expressed by the politics of the disenfranchised, one could see opportunities. In fact, the disenfranchised villagers of north-east Yunnan are capable of leveraging their very much-needed cooperation in the co-production of state services to secure resources from the local government.

Directions Forward

In concluding this thesis, I also wish to point out several ways in which the anthropological work presented here could be integrated and expanded. In various chapters, this thesis has noted how the dedication of Crooked Cart’s water workers and the cooperation of local villagers in the production of access to a steady and safe source of drinking and irrigation water may actually fall short of realising environmental sustainability. As the country’s economy grows in voracity, the slow but apparently irreversible process of dispossession and marginalisation that many Yunnanese agricultural communities are suffering seems to suggest that, no matter how hard local residents might try, the near future will be one with less available water for peripheral use. Ironically, the enactment of the 2002 Water Law, as described by this thesis, seems to give priority to fiscal consistency over access to water for the rural poor. As I documented in various chapters, Crooked Cart water workers go to great pains to secure water access for their local community, despite the unfavourable political and administrative regime under which they operate. Notably, these palliative,

ethically driven re-distributional strategies adopted by Crooked Cart's water workers – the restoration of Crooked Cart's purification station stands as an example – are rather integral, as opposed to oppositional, to a reform that promotes private contributions to the public good as substitutive to state welfare provisions.

However, there is another aspect where the counter-management practices described in this thesis may fall short of what the present state of China's water problem seems to require. From the selective reinterpretations of the price of water practised by the members of Crooked Cart's Water Service Building, to the solidarity network of water sharers enabling the distribution of drinking water to underserved households, these practices never fully cope with the problem of a diminishing resource base. The story of the disappearance of flowing water in Pitch-Black Plateau Village as recounted in Chapter 4 should speak volumes in this respect. Under a booming, integrated and unbridled economy such as that of China, little could be done to protect local waters from being diverted somewhere more profitable, thus discharging environmental costs on those located at the water-sending end of the spectrum.

Left alone in the quest of affording local access to fresh water, communities such as those described in this thesis may fall back on unsustainable managerial practices. The environment of Crooked Cart is already being severely damaged by years of intensive and unsustainable agricultural development. On top of that, the “market environmentalist” reform now seeks profit out of every single drop of water flushed into the supply network, as a way of optimising use and reducing overconsumption and environmental harm. In so doing, the reform is not repairing but rather displacing the damage to the environment. In fact, coupling a rising price of water with divestment from local water infrastructure is prompting Crooked Cart's farmers to get their water by means of under-performing, environmentally inefficient, locally devised means. Leakages, soil erosion and groundwater depletion are only a few of the potentially damaging consequences of a lack of supervision and ultimately interest from the central state. Inasmuch as the environment is constantly remade by the interrelated agencies of humans and non-humans, the lingering question is how the environment is currently being remade in contemporary China. This is to say that more research certainly needs to be done on how a truly independent, social justice oriented, and popularly based environmental politics could be advanced in single-party China.

Finally, this thesis has only superficially tackled the gendered and ethnic dimensions of water management in Crooked Cart and it has only tangentially looked at its relevance for the type of environmental issues discussed in it. Since its inception, the international environmental movement has moved from the realisation that women and ethnic minorities are unfairly targeted by lopsided practices of resource distribution and allocation. This position emphasises how the overlapping of class, gender and ethnicity produces biased patterns of access to markets and mobility, thus locking individual belonging to marginalised groups into environmentally degraded peripheries, causing them to shoulder the greatest share of capitalism-produced, environmental-related risks. Lyla Metha, Amita Baviskar, Tania Li, David Mosse and Erik Mueggler – scholars all quoted in this thesis – have conducted several detailed research projects at the junction of gender, race and the environment, showing the increasing marginalisation of already marginally positioned individuals in the process of changing environmental governance.

The question these scholars ask – who does actually gain from “environmental” policies? – is surely one of great importance for China, as recently demonstrated by the work of Lu Caizhen quoted in Chapter 4. In Crooked Cart, women and non-Han persons more generally, seems to enjoy only partial access to positions of power – both within the state and in grassroots institutions such as WUAs – while remaining by and large in charge of agricultural production and distribution of agricultural goods in the local economy. Indeed, the model of “co-action” of state services described by this thesis leaves great latitude to local power players to profit from the expanded access conferred to previously zoned off wards of local politics. Despite what I have argued above, under-represented individuals within underserved communities might actually end up being further marginalised by the process of co-action itself. While more work certainly needs to be done at this juncture, Chinese anthropologists and local activists seems to have anticipated Western scholars in tackling the “social epidemiology” of environmental risk. Lun Yin has for instance recently (2012) analysed a conservancy water project in a Yunnanese Tibetan community, giving a very nuanced description of the gendered and ethnic dimension of water governance in rural Yunnan. In light of this, I hope that my thesis has at least been able to answer some preliminary questions about the social arrangements currently in place in Yunnan to organise the allocation and distribution of water to its population.

Figure 20: The Water Service Building staff with the author



Appendix

In this appendix I present the Chinese version of three structured research tasks I carried out during fieldwork: a) a thirty households questionnaire; b) structured interviews with local officials on water allocation policies discussed in Chapter 3; c) the moral reasoning task presented at the end of Chapter 7. Details about their implementation have been already given in various chapters of this thesis. Here I wish to clarify few things. First, the sampling method of the questionnaire. This was a snowball method targeted at two different sections of one natural village under BMF's VC administration. This natural village belonged to the sparsely populated community of hamlets located along the road leading to Felicity Township. The village was selected because its residents had had their local drinking water delivery system diverted by the government. Thus, its westward section was by the time of fieldwork still supplied with water, while those living eastward had been only recently reconnected to the supply via the underserving system described in Chapter 2. Through these survey arrangements, I have been able to capture a more diverse population, comprising richer households (living on the westward section) and poorer ones. The second clarification is about the intellectual inspiration for such research tasks. The questionnaire, on which I received the precious help of Zhang Hui, Researcher at People's University of Beijing, is hugely inspired by Michelson's study of access to justice in rural China (2007, 2008) and Quinn and collaborator's work on the community management of natural resources (2003, 2007). In the questionnaire, the section on domestic water use largely follows the American CDC water utility survey guide (2008). Finally, the research task presented in Chapter 7 is inspired by Jonathan Haidt's work in moral psychology of (e.g. 2001). However, to fully qualify as a valid application of Haidt's scrupulous methodology, this task would have required a much more systematic process of implementation than what I have actually been able to carry out. Albeit important, these tasks have been only complementary to the data collected through long-term participant observation.

a) Questionnaire

云南省会泽县迤车真箐口村 2012 年博士问卷

概略

一， 基础家庭调查

二， 土地财产结构

三， 水资源

四， 纠纷

五， 农民用水者协会

一， 甲: 家庭结构: 在你们的房子里有几个人住在一起?

住在这里的人和当家的关系是什么?

家人的年龄:

家庭户口户籍证明:

母亲职业:

孩子日常职业

家庭的读书最多的人读了几年:

乙: 家庭年收入:

收入类型: 种地/集体公司/合作社/个体户事业/政府部门里/村内打工/村外打工

丙: 每个月的开支:

开支类型: 生活费/学习费/医药费/租赁费/税费/每年受到的政府补贴

二， 甲: 您的家庭有多少亩土地?

这些亩之间， 您种的是多少?

您的土地那里有的?

乙: 离您家最远的一块土地离多少公里?

您有的土地是那种土地: 责任田多少亩

承包田多少亩

荒坡地多少亩

流转地多少亩

丙: 您耕地是您自己还是租金的? 如果租金的, 每年的租赁费是多少钱?

三, 甲: 饮水有关:

箐口饮水龙头系统您是否安置的

自从安水表之后家里共用了多少立方米的水?

除了饮水龙头系统, 您还从哪里取水?

比如: 水井/水泉/小河/雨滴/瓶水/水窖/邻居的龙头

乙: 您家的饮水龙头是否有稳定的供应

否的话, 每个星期您多次要靠别的饮水源头?

您觉得您家的饮水龙头是不是安全的?

不是的话, 为什么?

丙: 如您用水井, 您每个星期用多少次

您用的水井是谁的?

按法律所有人是谁?

水井的水是不是免费的

丁: 是否有通水? 如有的话, 水桶的水是从哪里出来的?

原来迺车水务所是否送您家的救命水

戊: 灌溉水有关: 您对本地灌溉系统满意吗?

十分满意/很满意/满意/不满意/非常不满意

为什么?

在本地灌溉系统下, 有没有渠道、水沟、管子的负责人?

在本村有没有一位灌溉长?

四, 甲: 最近5年, 您家有(与别人的)矛盾吗?

有多少矛盾?

您的矛盾有什么原因?

乙: 在矛盾时, 您怎们解决问题?

为了解决问题, 您找谁还是那种部门的帮助?

如有第三方的帮助, 您是否满足: 十分满意/很满意/满意/不满意/非常不满意

您对纠纷解决的结果满意吗?

您的矛盾有什么原因?				
在矛盾时,您怎们解决问题?				
您找谁还是那种部门的帮助				
您是否满意				
您对纠纷解决的结果满意吗?				

丙: 关于用水的纠纷: 如遇到关于饮水的纠纷, 纠纷的原因是什么?

如遇到关于饮水的纠纷, 您怎么解决问题?

如果遇到关于灌溉水的纠纷, 纠纷的原因是什么?

如果遇到关于灌溉水的纠纷, 您怎么解决问题?

调解了纠纷之后, 您家的问题也消除了吗?

丁: 如遇到关于饮水的问题, 马上寻找的人是谁?

如果得到水务所的帮助, 您感觉满意吗?

十分满意/很满意/满意/不满意/非常不满意

如遇到关于灌溉水的问题, 马上寻找的人是谁?

如果得到水厂的帮助, 您感觉满意吗?

十分满意/很满意/满意/不满意/非常不满意

如果得到用水协会的帮助, 您感觉满意吗?

十分满意/很满意/满意/不满意/非常不满意

五, 甲: 农民用水者协会: 箐口村农灌用水协会您认识吗?

农灌用水协会人士的会员您认识吗?

最近您有没有参加了协会的会议? 有用吗?

乙: 水权认识您是什么?

丙: 您对本村采取的水资源管理措施满意吗?

十分满意/很满意/满意/不满意/非常不满意

b) Water Allocation Policies

送救命水的次序性原则

一，送水活动时，水务所靠什么道理来调配送水活动的接受者？

(请填写从最重要到少重要的原则)

决定农村时看重：

- 农村人口的大小
- 农村人口的老人比率
- 农村人口的小儿比率
- 农村的经济面貌
- 农村群众的普通同健康情况
- 农村牧养牲畜情况
- 其他 _____

决定农村里的家庭看重：

- 家庭人口的大小
- 家庭人口的老人比率
- 家庭人口的小儿比率
- 家庭的收入
- 家庭的普通同健康情况
- 家庭的牧羊牲畜情况
- 其他 _____

二，作初步调查来调配送水时，

- 是谁安排调查的内容？
- 是谁进行实地调查？
- 到底是谁议定调配的方式？（水务所，税务局，上级部门）

c) Moral Reasoning

甲：会泽县娜姑镇水务所原所长黄荣华，利用职权套取200万元水利专项资金供自己使用，涉嫌滥用职权、挪用公款、贪污、受贿罪4罪。会泽县法院经过公开开庭审理，作出一审判决：判处黄荣华总和刑期21年，数罪并罚，决定执行有期徒刑18年，并处没收财产41万余元。

会泽县检察院指控，黄荣华在担任会泽县娜姑镇水务所所长、会泽县娜姑水厂厂长期间，滥用职权，采用虚增工程量、虚开发票等手段，套取农村饮水安全资金、基本烟农田资金、866工程款等专项资金共计200万余元，放入自己掌控的镇水务所小金库，供自己自由支配。

据办案检察官介绍，按规定，水利专项资金只能专款专用，严禁挤占、截留、挪用和任意改变资金用途。

乙：会泽县迤车镇水务所箐口村的一个农民切管子偷往其他村流下200平方米的水自己使用，盗取国家财产，攫为己有供水私人家庭利用。会泽县法院经过公开开庭审理作出一审判决：判处箐口村农民和刑期1年，并处缴纳1万元的罚款。会泽县检察院指控，在箐口村偷水行为是挺平常的，每年它是对迤车镇管水资源的制度系统的最大损害。

据办案检察官介绍，按规定偷税行为是对饮水与灌溉水的供应的非法攻击，严禁挤占、截留、挪用和任意改变水资源用途。

假想侵犯法律的原因

A：因为偷水一事的理由是摆脱黄荣华家人的贫困。

B：因为偷水一事的理由是摆脱农民家人的贫困与饮水的困难

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