THIRSTING FOR CREDIBLE COMMITMENTS

HOW SECURE LAND TENURE AFFECTS ACCESS TO DRINKING WATER IN SUB-SAHARAN AFRICA

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How Secure Land Tenure Affects Access to Drinking Water in sub-Saharan Africa
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1

ACCESS TO DRINKING WATER

THE ARGUMENT

More than 1.1 billion people across the world lack access to safe drinking water. The most severe problems are found in sub-Saharan Africa, where 44 percent of the population lack access.\(^1\) It is thus evident that despite high ambitions and heavy investments throughout the recent decades, malfunctioning water supply still causes immense human suffering. What is more, there is no consensus on how to increase water coverage levels and reach wider segments of society. However, recently it has been suggested that the answer to the water problem may in fact lie outside the realm of the water and sanitation sector; namely in the domain of land tenure and property rights to land (Satterthwaite, McGranahan, & Mitlin 2005; Field 2005; Al-Hmoud & Edwards 2004; Payne 2002; de Soto 2000; de Soto 1989; Sida 2004; World Bank 2004).\(^2\)

Taking this argument further, the main purpose of this dissertation is to investigate whether credible commitments of governments to protect citizen property rights to land stimulate investments that in turn increase the proportion of people with access to safe drinking water. Hence, the argument developed here follows the growing consensus suggesting that the lack of success in past decades when it comes to increasing water coverage levels – particularly in sub-Saharan Africa – is attributable to the institutional arrangements under which land is managed. Yet, the focus on credible commitments and the role of the government in making property rights secure distinguishes this dissertation from most of the literature on the subject and has the potential to contribute significantly to advancing property rights analysis and institutional theory in general.

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1 Access to safe water is defined as reasonable access to an adequate amount of water from an improved source such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Reasonable access is in turn defined as the availability of at least 20 liters/person/day from a source within one kilometer of the dwelling (WHO/UNICEF 2004). This definition is discussed further in the subsequent section.

2 Property rights to land (interchangeably referred to as land tenure) is the institutional arrangements under which land is managed, and typically consist of bundles of rights ranging from authorized user to claimant to proprietor and to owner, and can be held by individuals as well as groups (Schlager & Ostrom 1992). The property-rights issue is thus not merely restricted to the question of individual ownership.
The traditional land tenure argument (depicted in Figure 1.1) made popular by for example Hernando de Soto holds that property rights to land produce higher water coverage levels through the investment incentives generated by such rights.

**Figure 1.1.** The land tenure argument

![Diagram showing the relationship between land tenure, investments, and access to drinking water.]

Note: The land tenure argument contends that access to drinking water is a result of the investment incentives generated by land tenure.

In short, the starting point is that if water coverage levels are to increase, some form of investment in land, housing, water infrastructure, or wells needs to be undertaken — primarily by citizens themselves. However, in order for such investments to take place, citizens need some certainty that they will reap the rewards from their investments. This certainty is suggested to result from property rights to land, i.e., land tenure. The causal mechanisms assumed to support such a claim are not complicated. The threat of forced evictions that follows from absent or malfunctioning land management institutions has been shown to make citizens reluctant to invest in housing, wells, or water infrastructure that would increase water coverage levels, and similarly, the fact that people occupy land illegally makes both public and private water agencies disinclined to invest in expanding the formal supply of safe water (Field 2005; Deininger 2003). More specifically, residents without land tenure can at any given point in time be removed or evicted — a fact that obviously gives them few incentives to invest their own scarce resources in fixed assets like water infrastructure or housing improvements. Citizens without land tenure simply do not have the right to the improvements they make in their property, and since fixed assets or wells cannot be moved to another location, investments in such resources are kept to a minimum. Moreover, not being able to use the land as collateral also severely limits citizen access to credit, which could stimulate investments (Deininger 2003; UN-Habitat 2003; de Soto 2000).

In addition, although investment incentives for citizens are assumed to have the most important effect on water coverage levels, if people do not have secure property rights to the land they occupy, they are unlikely to be

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3 Or at least, the uncertainty is suggested to be transformed into calculable risk.
the subject of public or private investments in water supply. Providing water to people not formally registered as inhabitants of a specific piece of land can – at least implicitly – be seen as a recognition of their rights to the land, and such an acknowledgment makes it more difficult to use the land for purposes that would potentially be more lucrative in the short term (Durand-Lasserre & Royston 2002a; Fernandes & Varley 1998). Illegality also makes it cumbersome to collect any form of user fees or taxes, and both governments and private water agencies therefore tend to be unwilling to provide water to people living in informal settlements and on unlawfully occupied land (Hansen & Vaa 2004; Payne 2002). For the above reasons, land tenure is generally put forward as a crucial component for reaching the Millennium Development Goal number 7 of cutting the proportion of people without access to safe drinking water in half by 2015 and improving the lives of at least 100 million slum dwellers by 2020.

On theoretical and empirical grounds developed further in subsequent chapters, property rights are thus assumed to stimulate investments – primarily from individual citizens but also from public or private water agencies. The conventional land tenure argument, however, tends to go astray in definitional debates over which form or type of land tenure – customary systems, state control, or private titles – best promotes investments and increased water coverage levels (Chimhowu & Woodhouse 2006; Fitzpatrick 2006; Woodhouse 2003; Toulmin & Quan 2000). There is also a debate over potential feedback mechanisms from access to drinking water to land tenure (Banerjee 2002; Payne 2002; Sjaastad & Bromley 1997). However, both debates, I argue, have generally overlooked the theoretically fundamental importance of credible commitments of governments to secure citizen property rights – no matter which form they take (see Firmin-Sellers 1995; Firmin-Sellers 1996; Admassie 1998). Taking this neglected side of the story seriously, this dissertation develops and tests the argument that low water coverage levels can be explained by the lack of credible commitments among governments to secure citizen property rights to the land they occupy.

The fact that land tenure has been put forward as a crucial factor for increasing water coverage levels serves as an underlying motivation for such an investigation. But, what is more, this argument addresses a fundamental theoretical challenge. More specifically, the simplest view of the state in the field of political economy – as an authority that produces public goods like protection of property rights in exchange for tax revenue – involves the following basic puzzle: a state with enough power to protect property rights

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4 Yet, it is assumed that citizen investment incentives are more fundamental and come before the investment incentives of private or public water agencies. Citizen incentives are thus assumed to affect those of water agencies, and citizen incentives to engage in productive activities have also been shown to be crucial for public investments to be sustainable.

5 See Chapter 2 for a thorough discussion of the debate over tenure types.
also has enough power to violate them (Greif 2006; Bardhan 2005; Weingast 1995). And given this ‘dark side of the force’, the question is under what conditions individuals or groups will enjoy secure land tenure? The argument developed and tested here contends that credible commitments are crucial for such security. Accordingly, no land tenure system is stronger than the commitment that stands behind it, and the analytical model then takes the following form.

**Figure 1.2. The credible commitment argument**

![Diagram of credible commitment argument]

Note: The credible commitment argument contends that access to drinking water is a result of the investment incentives generated by credible governmental commitments to secure land tenure.

The argument I develop from institutional theory (accounted for in Chapters 2 and 3) suggests that land tenure cannot be truly secure and bring about higher water coverage levels unless the government has established a credible commitment to truly protect citizen property rights to land. Since a government strong enough to protect property rights is also strong enough to violate them for its own benefit, rational anticipation of the government’s strategic incentive not to fulfill its protection promise makes citizens reluctant to invest in the first place. As a result, water coverage levels do not increase.

I test this argument by conducting a comparative study among countries with varying water coverage levels in sub-Saharan Africa. While the theoretical challenge of making property rights secure is certainly not confined to the African continent, Africa provides ample opportunities for a comparative investigation of the general effects of credible commitments. Africa is the continent with the largest problems related to access to drinking water, but although many of the countries face similar physical and geographical constraints there is in fact large variation among the sub-Saharan states. Given this research design, the overarching question is simply: have the governments in countries with high water coverage levels established a credible commitment to protect citizen property rights to a larger extent than the governments in less successful countries?

In order to answer this question, two commitment mechanisms previously put forward in the literature are developed further and then tested: history of play, and tying the grabbing hand. To start with, previous studies have suggested that a credible commitment can be founded on a
cooperative history of play that signals a trustworthy reputation (Acemoglu & Robinson 2006; Dixit & Skeath 2004; Dixit & Nalebuff 1993; North 1994). On theoretical and empirical grounds, the proposition here is that when it comes to property rights to land, the government can achieve this reputation by adopting anti-eviction laws, engaging in consultation, and refraining from forced evictions, i.e., by favoring policies aiming at upgrading rather than repressing. The second means by which the government can establish a credible commitment is by tying its own grabbing hand and introducing some form of power-sharing mechanisms that limit the government’s ability to violate citizen property rights and act as a coordination device for the citizens (Greif 2006; Greif, Milgrom, & Weingast 1994; Acemoglu & Robinson 2006; North & Weingast 1989). Put simply, the proposition is that a system of devolved land management comprises such a coordination device and tying of the grabbing hand.

However, before developing this argument further, let us in this chapter look closer at the issue of access to drinking water. The chapter is organized in the following way. First, I discuss the data available for comparing countries in terms of water coverage levels. I then present the challenge posed by lack of drinking water, give an account of how this challenge has been addressed in the past decades, and show that previous explanations to cross-country differences in terms of water coverage leave a lot of variation unexplained. Finally, I sketch the main outlines of the comparative investigation to be undertaken in the subsequent chapters, and present how this study can contribute to the real world challenge presented by lack of drinking water while simultaneously attempting to advance institutional analysis.

THE DATA

The definition of access to safe water given in footnote 1 is used by the many agencies involved in the effort to increase water coverage, but nevertheless suffers from a number of problems. Most importantly, the formulation in the Millennium Development Goal of cutting the proportion of people without access to safe drinking water in half by 2015 does not entirely correspond to the actual measure used for monitoring the progress. In the actual measure, there is no assessment of the real safety or quality of the water. Instead, coverage estimates rely on data representing the population covered by improved sources – where household connections, public standpipes, boreholes, protected wells or springs, or rainwater collection are considered to be improved while water from unprotected

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6 For example, the WHO and UNICEF Joint Monitoring Program used by the United Nations in their effort to monitor the progress towards the Millennium Development target of cutting the proportion of people without access to safe water in half by 2015.
wells or springs, from vendors, or tanker trucks are not. The WHO and UNICEF data can thus be criticized for not accurately estimating water quality, but at the same time it is probably plausible to assume that improved sources are more likely to provide safe and high quality water than sources that are not improved. Therefore, the data at least presents a rough estimate of to what extent the populations of different countries have access to safe water. Another upside of the WHO and UNICEF data is that it relies on household surveys and not on estimates by service providers. Although household surveys do suffer from some of the usual survey problems (surveys might not be conducted often enough, or there might be inadequate standard indicators and methodologies, making it difficult to compare information obtained from different surveys) their resulting estimates are usually considered to be more accurate than those based on data from service providers, which are unlikely to account for self-built facilities such as private wells, rainwater collection, or water from protected springs.\footnote{The WHO and UNICEF data is collected through two main techniques: assessment questionnaires and household surveys. The former consists of questionnaires that are sent to WHO country representatives and completed in collaboration with UNICEF staff and national agencies involved in the water sector. The household surveys are nationally representative and include surveys like Demographic Health Surveys (DHS), UNICEF’s Multiple Indicator Cluster Surveys (MICS), World Health Surveys (WHS), as well as other national demographic censuses. By promoting common standards, definitions, and methods, WHO and UNICEF have the outspoken ambition to ensure that data is comparable over time and among countries.}

Throughout this dissertation, I interchangeably refer to access to safe water, access to drinking water, or water coverage levels as the dependent variable. To reiterate, these terms, and the data used for measuring them, build on the estimates provided by WHO and UNICEF. One should bear in mind, however, that this vocabulary refers to the proportion of people with access to improved water sources. It is important to realize that such access does not necessarily equal access to “safe” or “high quality” water. In addition, there are of course uncertainties involved in comparing water data across space and time. Nevertheless, although a few particular country rankings may be inaccurate, I find it plausible to assume that the existing data does reflect aggregate trends and averages with enough detail to satisfy this study’s data demand.\footnote{When it comes to the other concept of interest in this study, namely credible commitments, issues of measurement and data are discussed at length in Chapter 4.}

**THE CHALLENGE**

For a large proportion of the world’s population, gaining access to drinking water is the ultimate challenge. Yet, according to the WHO and UNICEF data, the number of people with access to safe water increased by a remarkable 1.2 billion people globally between 1990 and 2004. However, in
sub-Saharan Africa, which is the continent in focus in this dissertation, 44 percent of the population is still without such access. Thus the average water coverage levels increased from 49 to 56 percent between 1990 and 2004, but the progress was very uneven; coverage levels increased rapidly in some countries while others were stagnant (WHO/UNICEF 2004). Clearly, lack of progress is a lethal condition. Waterborne illnesses account for 80 percent of all diseases in the developing world, and lack of access to drinking water is estimated to directly or indirectly cause 10,000 deaths every day (Bosch et al. 2002; UN 2003).

In sum, lack of safe water literally traps individuals and countries in poverty in at least four ways (see Bosch et al. 2002). First, it drastically reduces life expectancy. Poor people often have no other choice than getting their water from unimproved and potentially harmful sources such as water vendors, tanker trucks, or unprotected wells and springs, in many cases making them sick and therefore causing great suffering. Lack of water for washing and personal hygiene may also cause additional suffering through skin and eye infections as well as fecal-oral diseases (Sida 2004). Secondly, apart from the negative effects of water-related illnesses, lack of drinking water hampers long-term economic development by cementing low education levels. Notwithstanding the many children kept from school by waterborne diseases, the time-consuming burden of collecting water largely falls on children, preventing them from attending school. Thirdly, lack of drinking water has crucial gender dimensions. The children who are kept from school are mostly girls, and it is typically their mothers who accompany them to the water source. In many cases, women are the primary managers of household water and the time it takes to collect and prepare water effectively holds women back from entering the formal economy, and also excludes them from the independence that follows from earning cash income. Finally, lack of safe water has widespread effects on income and consumption. People not connected to the distribution network in some cases end up paying a lot more than people with formal connections. Since cash is as scarce as water, buying water from vendors reduces the consumption of other necessities such as clothes or food. The time, cash, and effort devoted to collecting water naturally also affect the ability to invest in other income generating ventures such as agriculture, small business, wage labor etc.

A reliable supply of drinking water thus clearly has repercussions on many dimensions of poverty – for example health, education, gender, and income issues. In addition, water coverage levels influence how well societies are able to cope with environmental uncertainties. The

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9 Consumption of contaminated water causes, among other fatal illnesses, diarrhea, typhoid, cholera, and dysentery, and polluted pools provide habitat for mosquitoes and snails with parasites, causing malaria, river blindness, Japanese encephalitis, and more.

10 Sometimes 100 times more (Bosch et al. 2002).
documented vulnerability that follows from not having access to safe water has in this way made water supply a key aspect of adaptation to climate change. Climatic irregularities are generally put forward as a serious threat to poverty alleviation with a potential to destroy development progress built up over many years. Adaptation and the reduction of vulnerability are thus clearly core components of poverty reduction. Yet, many communities have not been able to cope with the climate variability of today or yesterday, and if the Intergovernmental Panel on Climate Change (IPCC) proves to be only somewhat right, then the problems and vulnerability are likely to become even graver (IPCC 2001; UNDP 2004).

In conclusion, access to drinking water is clearly of crucial importance for poverty reduction and for reducing poor people’s vulnerability. However, given the fact that the benefits of having access to safe water have been known for decades, it is a matter for critical comment that our understanding of why some populations have access to safe water while others do not is limited. The next sections explore the shifting paradigms in the water sector and reveal that while previous research has generated important insights, the answers to the water problem have been far from conclusive.

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11 Adaptation simply refers to activities that reduce environmental risk and vulnerability – either before or after exposure to an environmental hazard. People living without secure land tenure and access to safe water are for example clearly more at risk and often live in areas vulnerable to hazards and pollution. More specifically, the aim of adaptation is therefore to make the livelihoods and general living conditions more stable and resilient to climatic variation. Without access to safe water, changes in rainfall and river flows have a direct and potentially fatal impact on people’s well-being as extreme weather events degrade or reduce water supplies. During floods and rain, pollution spreads and previously unpolluted sources turn to poison. And during droughts and water shortages, people turn to polluted pools or high-priced water vendors – if finding any water at all. Increasing adaptive capacities has therefore moved to the forefront of the climate discussion as well as in the area of sustainable development and poverty reduction in general (Ivey et al. 2004; Sida 2004; UNDP 2004; Rockström 2003; Sullivan 2002; World Bank et al. 2002).

12 While it is not possible to predict how future weather events will impact specific locations, having a large proportion of people with access to drinking water clearly strengthens the adaptive capacities of societies. Water is already scarce in many regions and successful strategies to cope with current climate variability therefore plausibly provide the best way to build adaptation strategies for the future (Adger 2003; Mirza 2003). Already today, and before the effects of climate change are certain, water-related natural disasters cause immense human suffering. Although flooding causes more physical damage, droughts are the most fatal of all natural disasters, and in countries where a low percentage of the population have access to safe water, the death toll from droughts is considerably higher than in other drought-stricken countries. What this rather obvious fact implies is that physical exposure to drought has little or nothing to do with how severely societies suffer from such events (UNDP 2004). Lack of access to drinking water increases the vulnerability significantly, and otherwise manageable risk is likely to result in disaster. Environmental risk and the likelihood of disasters are thus determined by the general vulnerability of households and communities; if forced to walk for hours to get water or if accessing water from an unprotected pond is the default mode, then any external shock risks growing to unmanageable proportions (see UN 2005).
THE RESPONSES

The explanations to cross-country variation in terms of water coverage have changed over time as one explanation after another has been proven unsatisfactory. To simplify, the water policies of recent decades can be divided into five different periods: The 1950s-1960s focused on economic growth, modernization, and state capitalism, while the early 1970s emphasized redistribution and growth; the late 1970s were the hey days of the basic needs approach, and the 1980s focused on free markets. The issue of physical availability of freshwater resources has also continually been presented as a crucial determinant of whether countries succeed in increasing their proportion of people with access to drinking water or not. Since the beginning of the 1990s, the solutions put forward have narrowed in on institutional aspects in general and on privatizing water supply in particular (Mycoo 2005). However, the awareness of a broader range of institutions related to water service delivery has recently risen, and many now argue that the institutional solution to the water crisis may lie outside the immediate sphere of the water sector and may instead be found in the area of land tenure (see for example Durand-Lasserre & Royston 2002b; de Soto 2000; Sida 2004; UN-Habitat 2003). This is indeed the starting point for this investigation as I set out to develop and test the argument that credible commitments to secure land tenure are crucial for increasing water coverage levels. But before developing this argument further, let us take a closer look at some of the past explanations to why some populations have access to safe water while others do not.

To start with, a common belief in the 1950s was that independence and modernization would easily translate into higher living standards for the new nation states.13 In this process of economic development, governments clearly had a prominent role. Far-reaching public involvement in the provision of physical infrastructure like water supply and electricity were to constitute the “big push” needed for raising the overall living standards and well-being. In the event of a financing gap, assistance from donors or cold war allies was called upon.14 However, despite an economic boom fueled by high commodity prices in the 1950s and 1960s, and despite substantial improvements in supply augmentation and infrastructure, many people continued to suffer from lack of basic services like safe water (Mycoo 2005; Lundqvist & Sandström 1997).

In disappointment over the failure of the proposed trickle-down effects from the growing economies, redistribution started to attract more attention in the 1970s. Growth was still a priority, but in order for

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13 “Seek ya the political kingdom and all else will follow” for example became the much repeated cry of Kwame Nkrumah, the leader of Ghana, Africa’s first independent country in 1957.
14 For a contemporary debate on the general feasibility of “big pushes” and financing gaps, see (Collier 2007; Easterly 2006; Sachs 2005).
development to really take off, policymakers and donors called for a more equal income distribution, and began downplaying the ambitious development goals of previous decades. Instead, they now focused more explicitly on trying to meet basic needs. Yet, despite economic growth and public investments, in many countries the expansion of water coverage did not match the population growth, and water quality and accessibility still left much to wish for.

Entering the 1980s, proponents of market-driven development suggested that a greater role ought to be given to the private sector since this was assumed to facilitate a more efficient utilization of resources, and the perceived excessive governments were in many cases put on a strict diet. At the same time, the UN declared the 1980s to be the “International Water Drinking Decade”, where every citizen would be assured access to safe water.\(^\text{15}\) Yet, the results were disappointing, and given the poor performance of water utilities in combination with a shortage of resources for operation and maintenance of water infrastructure, institutional reform and the concept of water as an economic good gained ground in the 1990s.

International summits reinforced this policy shift and the so-called Dublin Principles, which define water as an economic good have ever since influenced water management substantially (UN 2003). The idea behind the Dublin Principles is that managing water as an economic good leads to increased efficiency and frees up funds that can be used to reach out to the segments of society currently without access to drinking water. Hand in hand with this notion of water as an economic good comes the issue of privatization of water delivery. As cost recovery became a key notion in water sector reform in the 1990s, a number of publicly controlled water utilities were transformed into corporate entities.\(^\text{16}\) Water waste and deteriorating infrastructure have in many cases been found to be more critical for water coverage levels than has physical water availability, and the importance of efficient water use and incentives for conservation was now highlighted (Kayizzi-Mugerwa 2003; Bayliss 2003; Bennell 1997; Parker & Tsur 1997; Postel 1997). However, privatization of water distribution has in recent years spurred a forceful ideological debate over the feasibility of transferring responsibility of water and its public goods aspects to the private sector. Some researchers warn of detrimental effects for the poorest segments while others see the engagement of the private sector as the only way ahead (Allen, Dávila, & Hoffman 2006; Biswas 2005; García 2005; Galaz 2004; Trawick 2003; Zwartveen 1997). Without exploring the different standpoints further it is important to note that the overall

\(^{15}\) Yet, the capacity of the state to supply water was now in many cases also drastically reduced by economic reform packages and structural adjustment programs as the IMF and the World Bank were engaged in rolling back the state.

\(^{16}\) In other cases the delivery of water was contracted out to already existing private companies such as the multinational Suez or Vivendi.
important shift illustrated by this debate is that issues of modernization, public investments, and physical availability of water were no longer at the top of the agenda. Instead, institutional aspects were being put forward as the main explanatory factor to why some countries have high water coverage levels while others do not.\textsuperscript{17}

The different policy shifts thus coincide with a broader movement where the proposed solutions to the problem of water coverage have shifted from modernization and technology-oriented aspects to institutional concerns where privatization of service delivery has been one of the dominating arguments. The next section takes a closer look at the explanatory power of these suggested solutions.

\section*{THE SHORTCOMINGS}

This section examines to what extent some of the previously proposed explanatory variables account for the sub-Saharan variation in water coverage levels. As already mentioned, the dependent variable throughout this dissertation is the proportion of people with access to safe water as defined and measured by the WHO and UNICEF. The variables chosen to represent the main arguments of previous decades are physical water availability, economic growth, and population growth.\textsuperscript{18} In order to determine how much of the variation in water coverage these variables explain, I conduct a simple OLS regression depicted below.\textsuperscript{19}

\begin{footnotesize}
\textsuperscript{17} The World Water Development Report (2003) for example concludes that, “…the solutions based on engineering sciences are becoming increasingly ad hoc, fragmented and reactive and generally insufficient” (UN 2003:288). It also states, “We know the problem: it is one of management” (UN 2003:4), and, “As the world is changing, so must our ideas about water problems and their place in the broader picture of human development and needs. Perhaps the greatest shift has occurred in our emerging appreciation of the key role that governance plays” (UN 2003:369; see also UN 2006). Yet, water governance and water institutions are still in some respects emerging issues and there is generally no agreed definition of what they comprise more specifically. Clearly, there are many important institutional aspects of water management: distribution of riparian rights, regulating competing demands from downstream and upstream users, transboundary water management, abating corruption, regulating service providers etc. The concepts of institutional reform and water governance thus involve everything from broad administrative reorganizations to detailed reforms of how infrastructure and operations are managed, and, even though intuitively important, it still remains to refine the theoretical arguments and empirically test what, why, and where specific institutional aspects are important.

\textsuperscript{18} Data on physical water availability comes from the World Resources Institute’s Freshwater Resources 2005, and data on economic growth and population growth comes from the World Bank’s World Development Indicators.

\textsuperscript{19} Of course, this is not an all-encompassing quantitative test of all the water policies of previous decades, but it nevertheless serves as an illustration of the fact that some of the perhaps most intuitive explanatory factors do not explain much of the variation in water coverage.
\end{footnotesize}
Table 1.1. Estimating the effect on water coverage levels

<table>
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</tr>
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Note: OLS estimation with standardized betas in parentheses. Dependent variable: water coverage
2004. Independent variables averaged from 1990 to 2004 or closest year available. ** significant at the .05 error level in a two-tailed test

The table shows that the variables selected for representing some of the arguments put forward in the water sector in the last decades do not explain much of the actual variation in water coverage levels: an adjusted R² of .07 clearly leaves a lot of unexplained variation.

To start with, although water scarcity is obviously problematic, physical availability of water does not have any significant effect on the proportion of people with access to drinking water in sub-Saharan Africa. Moving on, rather than arguing that lack of drinking water has to do with lack of actual renewable water resources, previous research generally points to the fact that some countries have experienced higher economic growth than others. A closer look at the empirical realities, however, reveals that the association between water coverage and averaged GDP growth during the

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20 The sample (N) here comprise the following 47 countries: Angola, Botswana, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Cote d’Ivoire, Democratic Republic Congo, Djibouti, Ethiopia, Eritrea, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Zambia, Zimbabwe, and Uganda.

21 The most widely used figure to denote water scarcity is a per capita quantity of renewable water resources below 1000 m³ per year. Lower quantities than this are suggested to seriously hamper development opportunities (Lundqvist & Sandström 1997; Falkenmark 1989).

22 The fact that actual renewable water resources vary considerably in space, time, and quality naturally means that even though a country has abundant water resources, specific areas of that country can suffer from water scarcity. Yet, the aggregated data on renewable water resources at least points to the ultimate potential of various countries to supply water to their population from sources within their borders. Although the water resources may be unevenly distributed, many countries thus have more than sufficient quantities of water to fulfill the basic needs of their citizens. Water shortages may thus not primarily be caused by a physical lack of water. The number of deaths from drought has for example been shown to have little to do with the drought itself (UNDP 2004). Yet, while attention normally has been focused on investments in dams and ground water abstractions, little effort has been devoted to how and why limited amounts of water in some places are enough to satisfy the population’s basic needs but fail to do so elsewhere (Lundqvist & Sandström 1997).
last 15 years is negative (although the coefficient is weak and insignificant). Another frequently presented explanation to why some countries have not succeeded in increasing their proportion of people with access to drinking water is population growth: if the population grows quickly, it is simply difficult to increase coverage levels. This argument is in fact supported in the data: the faster the population grows, the lower the water coverage levels. However, there is still a lot of variation that is not accounted for. In conclusion, looking at the adjusted R², it is clear that the variables chosen here explain very little of the variation in water coverage levels across sub-Saharan African countries.

We now turn to the argument of the 1990s and the effects of water delivery privatization on water coverage.23 A study of privatization of water service delivery in sub-Saharan Africa shows that up until 2002, thirteen countries had embarked on some kind of privatization process.24 Creating a dummy variable for privatization and putting it into the above multivariate regression, however, shows only weak effects.

23 As stated before, water distribution has traditionally been an activity for the public realm. In fact, conventionally, institutional theory on public goods has been interpreted to predict that the market generally under-supplies services like water distribution (Rijssberman 2004; Sterner 2003; Cowen 1992). Firstly, networked resources such as piped water have high initial investment costs and significant economies of scale, which tend to create entry barriers and discourage private sector involvement. Secondly, once provided, water can be defined as a common pool resource with a risk of overuse and poor preservation. Accordingly, if water use is not governed appropriately, the losses in the distribution network will be substantial and end-users will be induced to overuse the resource, to the long-term detriment of everyone (Merrett 1997). Due to these resource characteristics, many of the textbook reasons for public provision have been argued to exist in the water sector: natural monopoly characteristics such as sizeable fixed costs creating barriers to entry, external effects in the form of overuse of scarce common pool resources, and substantial public good effects such as increased health and productivity stemming from a functioning water supply. More recently, however, those policy prescriptions have been questioned. In fact, some argue that although water indeed has some public good characteristics, the supply of water is a private good and should consequently be left to the market to provide (Biswas 2005; Boland 2004). Lack of capacity and recurrent failures in public provision, operation and maintenance have also spurred an emerging consensus suggesting that government failures and not market failures are the principal cause of malfunctioning supply. Consequently, many argue that the only remedy for the problems of low water coverage levels is to turn to the private sector – a process popularly referred to as privatization (Al-Hmoud & Edwards 2004). The for the most part empirically unproven assumption motivating this shift in policy is that the private sector would bring increased efficiency and technical and managerial expertise, and also improve the responsiveness to consumer demands (World Bank 2004; Kayizzi-Mugerwa 2003; Bennell 1997). See Chapter 2 for a more thorough discussion of public goods and common pool resources.

24 In chronological order: Cote d’Ivoire, Guinea, Central African Republic, South Africa, Senegal, Gabon, Mozambique, Cape Verde, Mali, Chad, Niger, Burkina Faso, and Uganda. In most of the countries, the states have maintained overall responsibility for asset ownership and capital investment as the contracts granted vary from management contracts to concessions (Bwayi 2003).
Although privatization has a weak positive effect on water coverage, the effect is not significant and the overall explained variation (adjusted R²) in fact decreases as the privatization variable is included. Taken together, it is clear that privatization on average has had no strong positive effect on the aggregate water coverage levels. At the same time, privatization does not seem to have had the strong detrimental effects that opponents warn of.25

In summary, the above section illustrates that sub-Saharan African cross-country variation in water coverage levels cannot be explained by some of the arguments commonly heard in the water debate of the past decades. Yet, as discussed above, more current studies have put forward arguments indicating that the answer to the water challenge may lie outside the realm of the water sector and instead may be found in the regulatory domain of land tenure (Satterthwaite, McGranahan, & Mitlin 2005; Al-Hmoud & Edwards 2004; Payne 2002; de Soto 1989; Sida 2004; World

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25 It is also clear that privatization can take many different forms. Simply put, the process referred to as privatization can be anything from hiring private companies to perform simple services to a full transfer of assets and management responsibilities. The various options thus differ in regard to how key responsibilities are distributed; for example in service contracts the private sector is typically engaged only for short periods and only to perform certain pre-specified tasks, while in a lease, the private sector generally takes on full responsibility for operations and maintenance as well as part of the commercial risk. Another common form of privatization is concessions. In such an arrangement, which typically runs over a time period of 25-30 years, the private sector also shoulders the responsibility for capital investments. Ultimate ownership of assets is, however, still vested in the state. In a Build Operate Transfer contract on the other hand, private sector participants in some cases own the assets. This is also the case in a full divestiture where the private sector takes on full responsibility for asset ownership (Budds & McGranahan 2003; Bayliss 2003; Rees 1998). Consequently, even when water service delivery is contracted out to the private sector, the state, as a regulator, still influences performance in water delivery, and theoretically, the public benefits of a secure supply of safe water can therefore be realized by a well-regulated private operator. Similarly, the efficiency of a private operator can be achieved by a well-regulated public company (Budds & McGranahan 2003; see also Devarajan & Reinikka 2004).
Bank 2004). In the next section I briefly explore this connection between land tenure and access to drinking water, and also sketch the main outline of the comparative investigation to be undertaken in subsequent chapters.

**THE INVESTIGATION**

When it comes to water coverage, it is clear that despite the generally dismal outlook and the tendency to conclude that lack of drinking water is given by nature or by exogenous economic forces out of national control, there is in fact great variance in outcomes across Africa. Certainly, it is well-known that many countries on the continent face tremendous challenges. What is less well-known is that in spite of similar geographical or economical constraints, for every failure there seems to be someplace else performing better. However, clear from the shortcomings of previous efforts, the understanding of water coverage level variation is still limited. Look for instance at the two neighbors Zambia and Botswana. Despite favorable development prospects at independence, Zambia is a country that overall has had very slow progress in terms of water coverage. In contrast, while Botswana at independence had all but encouraging development prospects, the country stands out as a success story. Situated in the midst of the Kalahari Desert where freshwater is scarce and rainfall is erratic at best, Botswana is clearly a country poorly endowed with water resources; drought conditions prevail and the topography is generally unfavorable for water source development and utilization. Water is so precious they call their currency Pula, meaning *Let it rain!* Nonetheless, almost all (95 percent) Botswanans have access to safe water (WHO/UNICEF 2004). Although being one of the most arid countries in the world in one of the poorest regions in the world, Botswana has succeeded where many others have failed.

That land tenure arrangements might explain cross-country variation in water coverage (for example Botswana vs. Zambia) has in fact been put forward for some time. Residents in informal settlements have been identified as exceptionally vulnerable to various risks, and the environmental conditions in their neighborhoods are generally very poor. Their shelters are often built "illegally" and they conduct their everyday lives outside the formal legal system where others find protection and opportunities (Durand-Lasserre & Royston 2002b; Payne 2002). Yet tenure issues are

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26 Some say that the success is due to the fact that Botswana is endowed with diamonds, but natural resource abundance has rarely been a blessing on the African continent (see for example Sachs & Warner 2001).

27 Typically, the main supply of shelter for the poorest segments is illegal occupation of land, subdivision of land, or construction of a shelter without permission and in conflict with planning regulations. Such settlements in turn generally have poor or non-existent water infrastructure since the housing development has taken place outside the formal planning system, and since there are few incentives to invest in improvements (Hansen & Vaa 2004).
not only important for urban areas; in rural areas, a similarly large proportion of the residents live under not officially recognized tenure systems.\(^{28}\) Given the lack of secure tenure, the only option for many people in both urban and rural areas is to engage in informal land and housing markets, as well as in informal markets in general.\(^{29}\) The informal character of everyday life is in turn said to hold back access to credit, long-term investment, and other productive activities conducive for economic development and human well-being, e.g., private or public investments in fixed assets like water infrastructure and housing (Deininger 2003; de Soto 2000; de Soto 1989; Ensminger 1996; UN-Habitat 2003). Access to land is thus argued to be a prerequisite for accessing livelihood opportunities and public services both in urban and rural areas. Land is in this way not just one of many important issues in the development of human settlements; it is in fact the most important one: “…tenure therefore forms the foundation on which any effort to improve living conditions for the poor has to be built” (Payne 1997:3).

On theoretical and empirical grounds, there are thus reasons to believe that secure land tenure increases water coverage levels. As will be clear from Chapter 2, property rights are institutional arrangements that lower uncertainty and provide incentives for individuals to engage in investments and long-term productive activities that would increase water coverage levels. But the issue of how to make property rights secure has not been given sufficient attention in previous research. This study’s focus on credible commitments and the role of the government in making citizen property rights to land truly secure therefore makes my argument move beyond the traditional focus in institutional theory. First, the perspective presented here departs from earlier institutional analyses by arguing that we need to look beyond the issue of institutional design and instead focus on the role of the government as the ultimate enforcer of institutional arrangements. Second, this focus presents a challenge previously overlooked in the property rights literature. Since there is no outside agency to enforce the agreement between the citizens and the government, the authority often found to violate the agreement is precisely the one supposed to enforce it

\(^{28}\) Although some conditions vary greatly between urban and rural areas and although the problems involved usually are subject to separate analyses, policies for land administration most often have national coverage. In addition, an integrated assessment is motivated by the fact that the MDGs are measured at a national level. True, rural and urban areas differ on some accounts. In rural areas, land has a sizeable economic value as a source of income, and is also important as a bearer of social and cultural values, as a way of settlement, and for symbolic and ritual use as burial sites, place of worship etc. The land also brings a variety of important environmental services such as water, wild products etc. (Toulmin & Quan 2000). But there are also numerous and significant rural-urban linkages and the dichotomy between the two sectors may in fact be conceptually flawed. Rural practices often survive in one form or another also in urban settings. And the conditions in urban settlements sometimes apply also in rural areas under increased pressure from outside cultural and economic forces (UN-Habitat 2005).

\(^{29}\) There are however several linkages between informal and formal sectors and many practices are found somewhere in between (Hansen & Vaa 2004; Durand-Lasserre & Royston 2002b).
(i.e., the government). Given this theoretical challenge, I attempt to advance institutional analysis by developing and testing an institutional theory of self-enforcement, i.e., a theory of how and why institutional arrangements can function in the absence of third-party enforcement. More specifically, by explicitly focusing on credible commitments I argue that previous research has overlooked the incentives facing the government, and thus the dynamic interaction between the rulers and the ruled. In contrast to previous research, which largely sees property rights as politically determined rules that are imposed coercively and top-down, I see secure property rights as a cooperative equilibrium outcome in an invest-protect game pursued by the government and its citizens (a game developed further in Chapter 3).

Methodologically, I also depart from the existing body of literature on the subject. First, I make credible commitments operational and set out to test the theoretical argument empirically. Second, I do this in a contemporary and comparative framework involving both quantitative and qualitative methods. As such, I endorse an approach different from previous ones that are predominantly either purely theoretical, focus on single-case case studies on the micro level, or focus exclusively on large-n (in some cases atheoretical) quantifications on the macro level. Yet, the African continent provides ample opportunities for comparative institutional investigations of land tenure arrangements, and the assessment of this empirical and theoretical gap makes this study unique in scope and ambition. Although the research question grew out of an attempt to address the real world challenge of increasing the proportion of people with access to drinking water, this effort required attempting to advance institutional theory. The findings should therefore be of interest not only to policymakers and donors interested in increasing water coverage levels, but also to property rights theorists and scholars interested in institutional theory and in how institutions relate to economic development in general.

The dissertation is organized in the following way. To start with, the specific research question guiding the overall research design concerns whether the governments of countries with high water coverage levels to a larger extent have established a credible commitment as defined here (i.e., have instituted a more cooperative history of play and/or tied their grabbing hand harder) than the governments of less successful countries. In order to answer this question, the logic is simply to compare countries with different levels of water coverage and find out if these differences correspond to differences in credible commitments to secure citizen land tenure. First, I perform a comparative investigation of tenure policies and practices in a smaller number of successful and less successful countries. Thereafter follows a statistical analysis of the relationship between water coverage levels and credible commitments. However, before turning to the empirical investigation, Chapter 2 gives the theoretical background to the main theoretical argument of this dissertation, and discusses the issue of land
tenure and investments more thoroughly. While I find that previous research has generated important findings, I argue that the preoccupation with type and form of land tenure has led to a neglect of the role of the government in making those rights truly secure. This argument is developed further in Chapter 3 where I argue that the government acts as the ultimate guarantor and enforcer of whatever property rights system is in place, and that it is in fact the interplay between the government and the governed, and the self-enforcing equilibrium that credible commitments create, that stimulate investments and increased water coverage levels. Chapter 4 discusses limitations and complementarities between the different methodological approaches, and specifies how credible commitments are measured and compared. Using both quantitative and qualitative methods, Chapter 5 then applies the tools and techniques presented in Chapter 4 in an examination of whether differences in water coverage levels correspond to differences in credible commitments. Finally, the conclusions and their theoretical and empirical implications are presented in Chapter 6.
LAND TENURE AND INVESTMENTS

THE LAND TENURE ARGUMENT

Cross-country differences in water coverage levels can be attributed to differences in the institutional arrangements under which land is managed. This is the claim made by the land tenure argument popularized by Hernando de Soto and others (de Soto 2000; de Soto 1989; Besley 1995; Deininger 2003). More precisely, the conjecture is that people have insufficient access to drinking water because they do not have property rights to the land they occupy. The causal mechanisms were accounted for in Chapter 1: the threat of eviction associated with not having property rights to land is suggested to act as a strong disincentive for citizens to invest in housing improvements or fixed assets like water infrastructure or wells. In addition, water distributors are generally not willing to supply water to people living on unlawfully occupied land.30 In short, theory posits that insecurity related to who owns or has the right to use land holds back investments which in turn is suggested to seriously restrain an increase in water coverage levels (Field 2005; Durand-Lasserve & Royston 2002b; Fernandes & Varley 1998). According to the land tenure argument, a first critical step for governments willing to increase water coverage would be to grant people legal rights to the land they live on. This would give households the incentive to invest in water supply and conservation as well as in other amenities crucial for improving living conditions and well-being. As we will see below, although there is generally a consensus that this argument is correct, there are widely differing views on what types of property rights that ought to be promoted (and as we will see in Chapter 3, the crucial question of what really makes property rights secure has generally been neglected).31

30 The rationale behind this claim is that the provision of services to informal settlements would make it impossible to use the land for other more profitable ventures since it to some extent constitutes an acknowledgment of the settlers’ self-acclaimed rights to the land. In addition, if residents are not the registered inhabitants of the plots in question, then the process of collecting user fees or taxes is cumbersome. Yet, as mentioned in Chapter 1 and as will become clear later on, citizen investment incentives are assumed to be of most crucial importance, making them of primary interest in this dissertation.

31 As will be clear later on, tenure systems are usually classified as either customary, state, or private. In short, the first category refers to the wide range of traditional systems of land management, with the
The following sections discuss the theoretical foundations of the land tenure argument and give an account of how property rights relate to individual incentives to engage in investments and productive activities. The chapter then reviews the debate over which type of property rights to land that best promotes citizen investments, and concludes that omitting the government from the analysis of property rights has left us with erroneous and misleading answers.

**NEW INSTITUTIONAL ECONOMICS**

Theories on how property rights relate to investments have their origins in the field of New Institutional Economics (NIE). As the label reveals, this theoretical field is concerned with economics and institutions, and is in some respect new (Ménard & Shirley 2005).

First, NIE is economics in the sense that it assumes rational actors in a world of scarcity. However, rationality is not to be understood as completely unbounded as in the mainstream neo-classical framework. On the contrary, NIE recognizes that individuals differ in their deciphering of the environment as they face unique and non-repetitive choices with incomplete information and uncertain outcomes (North 1990). Moreover, the rationality of individuals is assumed to be guided and constrained by the institutional framework in which they find themselves. Admittedly, the concept of rationality is much debated even among people who are generally supportive of the rationality assumption. Yet, here such an assumption simply means that people are assumed to act according to their preferences. The preferences can in turn often be defined *ex ante* on the basis of what logically is of interest for the group of actors under consideration. For a group of actors engaged in business transactions, a preference for maximizing wealth is for example a realistic assumption. For a group of peasants in a risky environment, it is presumably sensible to assume that

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32 Also referred to as New Institutionalism or more precisely Rational Choice Institutionalism (Peters 1996; Peters 1999), the New Theory of Organization (Furubotn & Richter 1997), Neoinstitutional Economics, the Property Rights School, Transaction Cost Economics, and Law and Economics etc. (Eggertsson 1990; North 1990). To avoid confusion, NIE is the term used throughout this text.

33 As such, NIE criticizes the neo-classical assumptions of unbounded rationality, perfect information, and costless and instantaneous transactions. More precisely, mainstream neo-classical economics generally overlooks the motivating, enabling, and guiding function of institutions. Instead, it assumes actors to be fully informed and capable of choosing between all available alternatives in the blink of an eye and at no cost (Kreps 1990; see also Furubotn & Richter 1997). In contrast, NIE acknowledges that individuals have incomplete information and that transaction costs do exist. As we will see in subsequent sections, high transaction costs hamper the allocation of resources to their most efficient use, but also highlight the importance of institutions that can reduce the costs involved. Property rights are in this respect considered to be one of the most tangible and important institutions since they create patterns of incentives and disincentives for human behavior and facilitate transactions (Acemoglu & Johnson 2005; North 1990; Eggertsson 1990).
maximizing security has some appeal (Levi 1997). In our context, the assumption that people living without access to drinking water would be interested in improving their living conditions is reasonably not too far-fetched. The strict preference for access to drinking water as opposed to not having access to drinking water can thus plausibly be regarded as exogenous. However, as elaborated upon below, the preferences regarding appropriate strategies to reaching this goal are assumed to be endogenously generated by the institutions governing behavior and expectations of the behavior of other people. Rationality thus determines human behavior, but the notion of what is rational is at least partly produced by institutions, i.e., people act according to a logic of appropriateness as well as a logic of consequence, since institutions define either the appropriate consequence, or in our case at least the appropriate strategies.34

The assumption of a world of scarcity in turn implies that in order to obtain a certain amount of X, a corresponding amount of Y has to be given up. The time, money, or effort spent on achieving X could always have been used for another purpose, and the cost of X thus equals the value of that which is given up. To obtain a little more of any good there simply has to be a choice not to obtain another. NIE is thus also economics in the sense that it is a science of choice (Williamson 2005; Pejovich 1998; Goodin 1996).

Furthermore, NIE is institutional in the sense that the actors, their behavior, and their choices are seen as shaped and constrained by institutions that define the playing field and act as rules of the game. In this perspective, institutions fundamentally determine human behavior. In a world of uncertainty, individuals are assumed to seek cognitive, coordinative, normative, and informational guidance in institutionalized rules. Institutions in this way structure interactions, stabilize expectations of the behavior of other agents, and also by and large specify normatively appropriate activities. Institutions thus help actors predict the behavior of other people, but also to some extent determine their own interests and define morally appropriate actions (Greif 2006; Libecap 2005). However, for rules to correspond with behavior it is necessary that there is some underpinning motivation for people to follow the rules. In institutional theory, beliefs and norms are generally thought to provide such motivation.35

Finally, NIE is new in the sense that it is newer than the ”old institutionalism” which also paid tribute to the importance of institutions but from a less actor-oriented perspective (Common 1931; Mitchell 1903;

34 This corresponds to the notion of purposeful action where rational agents are assumed to have goals and act in order to achieve those goals, taking physical circumstances and expectations of other agents into account (Sened 1997).

35 Formulated by Greif as: “…the rule about driving on the right does not cause us to do so; we are motivated by the belief that everyone else will drive on the right and it is therefore best of us to do so as well” (Greif 2006:36).
Veblen 1898). NIE criticizes the old institutionalism for relaxing too many of the neoclassical assumptions,\(^{36}\) for being too descriptive, and for not explicitly treating institutions as either dependent or independent variables in the analysis (Ménard & Shirley 2005).

**Property Rights and Transaction Costs**

What exactly are property rights, and why, more precisely, are they important? To start with, I define property rights as **having the exclusive rights to a benefit stream** – usually the rights to the fruits of one’s labor. Exclusive rights involve having the ability to exclude outsiders, thus having control over who is benefited. The benefit stream can however stem from many sources, e.g., from effort, ownership of a resource, from an investment, an innovation etc. This definition corresponds to the more lengthy definitions found in the literature where property rights are usually defined as, “…a) the right to use the asset… b) the right to appropriate returns from the assets… c) the right to change the asset’s form and/or substance” (Furubotn & Pejovich 1974:4). North follows this definition when he defines property rights as “…the right to use, the right to derive income from the use of, the right to exclude, and the right to exchange” (North 1990:28). Property rights are thus to be understood as the rights to the benefits from a given resource, including the right to exclude others from using the resource or enjoying the returns (Alston & Mueller 2005; Firmin-Sellers 1995). Several other researchers agree: property rights are the rights to use, sell, rent, profit, and exclude others from a resource (Haber, Razo, & Noel 2004; Riker & Sened 1991; Eggertsson 1990).\(^{37}\)

When it comes to drinking-water, property rights are important since they affect the incentives to invest. First and foremost, theory suggests that property rights shape investment incentives by lowering transaction costs and uncertainty in human exchange, which in turn affects people’s time preferences. To be precise, a transaction is usually defined as the transfer of

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36 NIE on the other hand does not reject the assumptions of scarcity and competition. It is also worth noting that NIE assumes that more satisfaction is better than less satisfaction. For this reason, in time t individuals continually engage in investments and exchanges that they expect will increase their satisfaction in time t+1. They for instance change their leisure into wage labor, their wages into consumer goods, their skills into services, their services into money, their money into services etc. To be precise, what people change is their property rights – the rights to the benefit stream from their labor, skills, or money. Yet, since individuals operate in a world of scarcity the incremental increase in satisfaction always comes at the cost of what is being given up. However, as we will see in the subsequent section, if this cost is greater than expected benefits or if individuals are uncertain of whether they will be the beneficiaries of potential returns, then individuals are predicted to refrain from investments and exchange altogether. Hence, for such activities to take place, the return (material, social, or of other kind) derived from the investments or the acquired goods must be anticipated to be larger than the benefits derived from the goods that are given up.

37 Following Sened, having property rights thus means having effective control over the content of an individual right, meaning that duty bearers respect the claims of right holders over the property rights conferred by a social system (Sened 1997).
an entity between social agents, such as a product or service, a social attitude, or a piece of information that has an external effect on the recipient. In any such transaction, institutions enable, constrain, motivate, and guide human behavior (Greif 2006). In our case, long-term investments needed for the sustainable development of human settlements are not likely to take place if there are no property rights that can lower uncertainty and stimulate productive behavior. On the contrary, when property rights are insecure, investments are made for the short-term and a considerable proportion of time or money is devoted to private security arrangements (Shirley 2005). If uncertainty prevails or if transaction costs are high, then theory posits that no one is willing to engage in productive activities; constant fear of losing produce simply makes every rational actor keep investments to a minimum.38

In the neo-classical setting, all potential gains in the economy are continually being exploited without delay and at no cost.39 However, when transaction costs are included in the analysis we get another picture. This is in fact NIE’s central contribution to economic theory: incomplete property rights make exchange and investments costly – “…not free, nor even cheap.” (Ensminger 1996:18). Simply put, if property rights are insecure, then investments and exchange come with substantial costs since investors cannot be certain to reap the potential returns, and the time and effort it takes to gather information about trading partners, to negotiate a contract and monitor its fulfillment could be used for other more productive purposes.40 The costliness involved in interpreting the surroundings – not least interpreting the actions of others – brings to light the importance of institutions, i.e., elements that lower uncertainty by producing behavioral regularities.41

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38 Under such circumstances, time preferences naturally differ from when property rights are secure. In short, under uncertainty, people discount the future more heavily, and thus have a comparatively stronger preference for utility today than for utility tomorrow. And, not surprisingly, in an environment where the future is heavily discounted, no long-term investments are made.

39 The neoclassical assumption of the efficient market is illustrated by the story about an economist who when out on a stroll with a senior colleague tried to pick up a $100 bill from the pavement. The senior colleague hindered him with the argument that if the $100 bill were real it would not still be lying on the sidewalk but would already have been picked up. In developing countries, however, there are at any given point in time still a number of big bills left on the sidewalk (Olson 1996).

40 Consider for example the costs involved in a simple barter or in any market transaction: first there is a need to learn who one wants to deal with, then it is necessary to make contact with this partner, to negotiate a contract or terms of agreement, and to make sure the terms are respected (Coase 1960). All the costs involved in this process are transaction costs: “…the economic equivalence of friction” (Williamson 1985:19). NIE fully admits that increased specialization and division of labor provide ample opportunities for welfare-enhancing exchange and investments, but these gains are thus not the “free lunch” that neo-classicism assumes them to be. Mainstream neo-classical economics failing to recognize these costs may make the predictions on human behavior derived within that discipline highly misleading. Admittedly, while the predictions are impressively exact, they are in many cases also exactly wrong.

41 By acting as rules of the game that for example standardize weights and measures, specify property rights, and enforce agreed upon contracts, institutions in general and property rights institutions in particular constrain, enable, guide, and motivate behavior and as such also add predictability to human
In short, NIE perceives transaction costs as the major stumbling block towards economic prosperity: an invisible hand unaided by supporting institutions simply tends to work slowly and at high cost (Furubotn & Richter 1997). Naturally, in a situation where such “economic friction” is high – where there is no system to enforce agreed upon contracts and to specify who has the right to what – economic activity risks being exceedingly costly. People therefore restrict contractual relations to close friends or relatives whom they can trust. However, since there is a limit to the number of services that can be obtained from close friends and relatives, such restricted networks generally obstruct larger scale welfare-enhancing exchange or longer-term investments. In fact, there are a number of examples of small-scale societies where exchange takes place on a face to face basis and where transaction costs and the resulting investment risks are minimized by norms of trust and reciprocity (Ensminger 1996). However, in such small scale settings, producers regularly face the same constraints, and due to limited specialization and division of labor, production costs are generally very high. Typically, the trading partners in such an environment often have few goods other than the ones they can produce themselves, and the gains from trade are limited. Yet, when the network of interdependence stretches outside the immediate vicinity, then the scope for opportunistic behavior increases dramatically (Bardhan 2005). So, in order to encourage people who have never interacted and who have no kin relations or other affiliations or obligations to each other to cooperate and engage in mutually beneficial transactions, there is a need for more complex institutions (Greif 2006; Ensminger 1996).42

In conclusion, NIE suggests that it is the lack of institutions (that lower transaction costs and add predictability to human behavior) that holds back mutually beneficial exchanges and socially productive investments such as investments in water infrastructure and housing, or investments in specialization in general.43

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42 North has described the movement from personal to impersonal exchange as the essence of the process of economic development, and as aggravated here, the institutional arrangements most crucial for lowering uncertainty and the costs involved in such economic activity are generally considered to be secure property rights (North 1990; see also Benham 2005; Shirley 2005).

43 Consider for example an average farmer in an average poor country. He is typically able to perform a multitude of tasks: water source development, farming, construction, husbandry etc. The abilities are impressive but everyone would be better off if the multi-talented farmer were able to specialize and gain mastery in one occupation and subsequently trade those exclusive and unique skills for another person’s specialized skills. Individuals differ in tastes and capacities and the welfare-enhancing gains from trade and division of labor have through history been proven great. But such a system of specialization only makes sense if the rights to the output are clearly defined and can be traded. It is simply not of much use specializing in digging wells or construction of water infrastructure if outsiders cannot be excluded from appropriating the benefits of the investments or if the skills cannot be traded for money or food (Sachs 2005). Hence, in order for exchange or investment to take place, the costs involved in transacting have to be lowered. If the farmer for example acted in an environment with secure property rights, there would
**The Social Dimension**

Of central importance in property-rights theory is that property rights affect the expectations of how other people will behave. Property rights in this way connect people to each other and to other resources. In this study’s argument, secure property rights encourage investments in water infrastructure and housing improvements – in turn increasing the proportion of people with access to drinking water. The logic is that property rights determine resource use since they govern the expectations of how other resource users will behave.\(^{44}\) When discussing property rights, the focus should thus not be on objects or people, I argue, but rather on people in relation to each other and to resources. The simple but fundamental notion here is therefore that the behavior of one person is firmly connected to the behavior of others – or perhaps more fundamentally to the **expected** behavior of others (von Neumann & Morgenstern 1953). Consequently, property rights are institutions that shape how people interact and relate to each other in reference to resources, and at their core they have a social function (Naughton-Treves & Sanderson 1995).\(^{45}\) In essence, property rights define the incentives to people for undertaking various efforts, and have serious implications for technology adoption, environmental sustainability, economic growth, food security, poverty reduction and as focused on here, access to drinking water.\(^{46}\)

Insecure property rights are, however, all too common, and in our case it is the lack of secure property rights to land – and the resulting expectations of other people’s behavior – that are suggested to hold back efficient land use and investments in improvements and infrastructure that would increase the proportion of people with access to drinking water. In theory, if no property rights exist, or if they are insecure, then anyone’s property is everyone’s property. Similarly, if there are no property rights defining who are to benefit from an investment, then the anticipation that

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\(^{44}\) More precisely, property rights stabilize expectations *ex ante* and promote consistency in actions *ex post* (Agrawal & Gibson 2001). Put differently, property rights provide stability and regularity of individual and collective behavior regarding objects and circumstances of value (Bromley 1998; Bromley 1991). Hence, studying property rights is about studying elements that reduce uncertainty and generate regularity in human behavior.

\(^{45}\) Some go as far as to explicitly state that since property rights structure all interactions that take place in regard to all kinds of resources, “…without them social interactions would be impossible” (Agrawal & Gibson 1999:637).

\(^{46}\) Property rights thus define privileges granted to individuals (*or* collectives if the rights are communal) and thereby affect decision-making, which in turn has consequences for whether economic development in general will take place, how it will be distributed, and how sustainable the resource base is handled (Meinzen-Dick et al. 2002).
someone else easily can confiscate the produced returns refrains individuals from engaging in productive activities. Without secure property rights it might instead be a more attractive option to free-ride on someone else’s output. Yet, with such an incentive structure, productive activities and investments tend to be in short supply.

In conclusion, theory predicts that an individual who is not confident of being the one to benefit from an investment becomes reluctant to invest, and becomes more likely to attempt to benefit from other people’s investments. But if everyone were to take this stand, then all investments would become highly unlikely. Insecure property rights thus make people expect that others keep investments to a minimum, which induces them to follow the same strategy themselves. The fear of losing produce is hence argued to lead to a vicious cycle where no one is willing to engage in productive activities. Thus, secure property rights stimulate long-term productive behavior whereas insecure property rights lead to the pursuit of short-term gains. Property rights in this way have the potential both to encourage individuals to take cooperative actions that produce mutually beneficial outcomes and to counter behavior that promote individuals’ short-term interests at the expense of the aggregate good (Dixit 2004). With an absence of property rights, on the other hand, there is no way of constraining or anticipating human behavior, leading to intimidately high transaction costs and low levels of exchange and investment.

PROPERTY RIGHTS AND PROPERTY WRONGS

If property rights are so important, acting as ”rules of the game”, why not simply decide on the rules and let the players play? Given the fact that social scientists of various persuasions agree that secure property rights are crucial for economic development and natural resource management, surely this would be a straightforward solution. Yet, property rights can either be vested in the state, be granted to individuals, or to collective entities, and there is an ongoing debate over which of these tenure arrangements is the most suitable for land management. Before looking closer at this debate, however, let us recall the different categories that goods and resources generally are grouped into. In the literature there is a helpful standard quadratic classification of goods defined out of property characteristics – more precisely according to whether others can be excluded from using the good and whether one person’s use reduces the total good available for other users (see Mankiw 1997:221).
### Figure 2.1. Resource characteristics

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<td><strong>Yes</strong></td>
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<tr>
<td>Private Goods</td>
<td><strong>Yes</strong></td>
<td>Natural Monopolies</td>
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<td>- Ice Cream</td>
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<td><strong>No</strong></td>
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<td>Common Pool Resources under Open-access</td>
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<td>- Environmental Resources</td>
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<td><strong>No</strong></td>
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**Note:** Goods and resources can generally be classified according to whether outsiders can be excluded from using the resource and to whether one person’s use reduces the amount of the good available for other users.

As can be seen in the above figure, private goods are those that are both excludable and rival. If a person for example buys a private good, e.g., an ice cream from the ice cream man, then no one else can consume the exact same ice cream, and other consumers can be prevented from eating this person’s (and the ice cream man’s) ice creams. Beneficiaries can thus be charged without difficulty and those who do not pay can be excluded from use. Public goods on the other hand are neither excludable nor rival, implying that once these goods exist, they are there for everyone to use and one person’s use does not reduce the amount available for others. If a person for example uses a street light, there is not less light for everybody else to use, and the provider cannot exclude others from using the light. Between these extremes we find the goods meeting only one of the excludability and rivalry criteria.

The different property types – private goods, natural monopolies, common pool resources, and public goods – give rise to different kinds of management problems. When it comes to defining property rights, it is clearly the categories not meeting the excludability criterion that prove to be particularly challenging. That outsiders cannot be excluded implies that consumption or provision of such goods brings costs or benefits for bystanders; providing street lights is for example a benefit for bystanders (a public good) while using too much of a common pool resource is a cost imposed on others (a public bad). However, these impacts – traditionally titled market failures and more specifically called externalities – are not reflected in the provider’s own private costs or in a regular market.
transaction. Since not all the benefits can be reaped by the provider and free-riders cannot be excluded, a market has a propensity to under-supply goods that do not fulfill the excludability criterion. By the same logic, public bads tend to be over-supplied since for example an individual polluter does not bear the full cost of the pollution.

The inability to exclude gives rise to a free-rider problem where each individual has an incentive to free-ride on the efforts of others and not participate in the joint effort to produce or conserve a good that generates benefits for everybody – for example sustainably managed water resources, a communal well, or a public standpipe. Similarly, if outsiders cannot be excluded from private investments in fixed assets like water infrastructure, or if the investor risks being removed from the location in question, there are few incentives to engage in such investments. Yet, at least in theory, a system of property rights can internalize such externalities.47

Public goods, or rather public bads and what happens with unregulated common pool resources, are traditionally conceptualized in Hardin’s Tragedy of the Commons where herders with a common pasture have the incentive to graze more cattle than optimal (Hardin 1968). Since every herder gets a full benefit for putting another animal on the common grazing ground but only bears a fraction of the cost, the incentive structure propels individuals to pursue a strategy that in the long-run brings ruin to all. Since the individual herder does not have private property rights to the grazing land, he does not bear the full costs of his actions. In addition, individual behavior is guided by the expectations of how others will behave, and if anticipating that other farmers are to put more cattle in the common pasture, then the (individually) rational response is to act likewise. In order for the herder to immediately perceive the negative effects of putting too many cattle on the ground, Hardin recommended the establishment of private property rights to land. Under such an arrangement, the cost of any private action or inaction corresponds directly to the expected individual benefit or loss of benefit. If this system is not viable, Hardin advised that a central planner (the state) should be given the authority to regulate the use of the common pasture and distribute reversible use rights.

Hardin’s recommendations have been heavily criticized and today there is mounting evidence that resources held collectively can indeed be used sustainably (Quan 2000b; Baland & Platteau 1996; Bromley 1992; Ostrom 1990). What Hardin failed to recognize was basically that common pool resources have two modes of functioning. First, there is the open-access situation where use is unregulated and where the consequences are precisely what Hardin predicted. But then there is also regulated common pool resources. In this mode, resource users have information about

47 If property rights were completely defined in all situations there would be no externalities, i.e., private incentives would be aligned with social benefits and costs and every owner would be the residual claimant of his resource use decisions (Libecap 2005).
resource characteristics and about other users, and by repeated interactions they learn to trust each other and invent local level institutions that constrain and regulate the use of the common pool resources (Bromley 1992; Ostrom 1990). In the last decade or two, many scholars have thus argued that the promoters of private property rights have misinterpreted the concept of common property regimes and erroneously referred to them as open-access (Agrawal & Gibson 2001; Toulmin & Quan 2000; Bromley 1998). According to this perspective, what Hardin and others fail to see is that successful resource management can be accomplished not only by rights to resources being vested in states or individuals, but also in communities or local level institutions. As long as there is some kind of formal and/or informal rules in place, the commons can thus be managed sustainably and efficiently by multiple users. Most famous are Ostrom’s design principles which describe when and why common pool arrangements do not lead to overuse.48 The tragedy of the commons consequently ought to be renamed the tragedy of open-access. And the commons should in many cases be labeled a comedy.49

Yet, Hardin’s dismal predictions concerning sustainable management of resources held in common are not unique. A similarly classical argumentation is found in Olson’s Logic of Collective Action: Public Goods and the Theory of Groups, which challenges the optimistic view that rational, self-interested individuals act to pursue the interests of the group to which they belong (Olson 1965).50 Olson’s argumentation rests on the fact that an individual who will receive the benefits of a collective good once the good exists has no incentive to put any effort into producing the good. In analogy with the tragedy of the commons, while every single individual contributes with a full effort in the production of a collective good, the actual payback in fact only corresponds to a fraction of the total benefit. An inquiry into the field of collective action in this way basically entails studying private costs and benefits of participating in producing collective goods. With this in mind, an

48 Ostrom’s examples include self-organizing and self-governing commons systems that have worked well and endured for centuries, including grazing and forest institutions in Switzerland and Japan, and irrigation systems in Spain and the Philippines. The design principles that make those systems work are: (1) clearly defined boundaries, (2) proportional equivalence between benefits and costs, (3) collective-choice arrangements, (4) monitoring, (5) graduated sanctions, (6) conflict resolution mechanism, (7) minimal recognition of rights to organize, and (8) nested enterprises (Ostrom 1990; see also Morrow & Hull 1996).

49 What might be perceived as tragic, however, is that such findings only slowly are finding their way into policy. Due to Hardin’s policy recommendations, existing common pool property regimes and indigenous knowledge systems are in this line of reasoning still greatly underutilized resources when it comes to resource management: to this date it is not common that policy makers take the high value of common pool resources into account – even though it might be prohibitively costly for society if all the goods and services derived from common pool resources instead were to be obtained from the market (Cousins 2000b).

50 Olson postulated that, “…unless the number of individuals in the group is quite small, or unless there is coercion or some other special device to make individuals act in their common interest, rational, self-interested individuals will not act to achieve their common or group interests” (Olson 1965:2).
incentive structure where each individual bears the full cost of participating while only receiving a portion of the total benefit in return can quite easily be predicted not to encourage collective action.\textsuperscript{51}

Working together for the common good would however collectively be the most rational thing to do (Meinzen-Dick & Di Gregorio 2004). Yet, bad things evidently happen also to rational people, and it is clear that in cases when individuals fail to engage in collective action, then individual rationality produces a collectively irrational outcome (Olson 2000).\textsuperscript{52}

In analogy with Olson, Alchian and Demsetz argue that common pool resources inevitably lead to collective action problems since the individual only gets private property rights (the individually exclusive right to the benefit stream) once the resource is harvested or taken from the common pool (Alchian & Demsetz 1973; Demsetz 1967).\textsuperscript{53} Similarly, in order to make private costs correspond to private benefits and in that way avoid collective action problems, Ronald Coase in his seminal work suggests the imposition of private property rights on every comprehensible aspect of human activities (Coase 1960). Coase’s basic idea is that the reason for why externalities and collective action problems exist is that property rights over both positive and negative benefit streams are incomplete. The fact that bystanders can benefit from someone else’s provision of street lights is simply a consequence of absent property rights over the street lights; if property rights were complete, then people benefiting from the street lights would pay the provider a user fee (and more people would thus be interested in supplying street lights). Similarly, the fact that bystanders suffer from someone else’s pollution is a result of absent property rights to a pollution free environment. If property rights existed over for instance clean air, then the polluter would violate the rights of others by polluting, and

\textsuperscript{51} That is, as long as there is not coercion or some other special device in place.

\textsuperscript{52} Every herder would benefit from a sustainably managed pasture, but since they get a direct benefit from adding another cattle, and since they expect such behavior from the other herders, no one employs a conservation strategy – no one wants to be the only one engaging in conservation or in the production of collective goods in general. This disagreement between individual and collective rationality is often formalized in game-theoretic models, e.g., the prisoner’s dilemma where two accomplices are held in custody and restrained from communication. They are told that staying silent implies a short sentence, and that squealing on your partner while the partner remains silent will result in no sentence for the squealing prisoner and a long sentence for the silent partner. Finally, if both prisoners squeal on each other they will both receive medium sentences. These payoffs would make silence the optimal strategy for both prisoners – their public or common good – but they both have incentives to squeal since there is a possibility that this will set them free. Silence in turn could give them a long sentence. Hence, both prisoners squeal since they expect this behavior from the other party, and they consequently receive medium sentences. Of course, both prisoners would have preferred the shorter sentence, but the risk and anticipation of the other prisoner squealing in order to be set free cause both players to act in a collectively irrational way (Axelrod 1984).

\textsuperscript{53} In for example a collectively owned forest, hunters will over-hunt in order to establish private rights to wildlife and exclude others from use (Alchian & Demsetz 1973). In a similar manner Gordon (1954) proceeded Hardin’s tragedy with an example from fisheries where he ascribed overuse of resources held in common to the fact that exclusive rights to the benefit stream are safeguarded only by taking the resource from the common pool: “The fish in the sea are valueless to the fisherman, because there is no assurance that they will be there for him tomorrow if they are left behind today” (Gordon 1954:135).
hence be liable to pay the bystanders compensation for the cost imposed on them. What Coase argued was thus that if property rights were allocated appropriately there would simply be no externalities since all activities would have a price in the market place.54

Yet, while the logic of the private property rights paradigm is compelling, the literature has not been able to provide convincing empirical evidence of the superiority of private property rights. On the contrary, growing evidence of the pitfalls of following the suggestions of this paradigm – in particular the high costs and negative consequences for the poor – has in many cases motivated a re-examination of property arrangements (Chimhowu & Woodehouse 2006; Fitzpatrick 2006; Fitzpatrick 2005; Toulmin & Quan 2000). What is clear, however, is that the scholarly debate over different types of property arrangements has affected the policy debate concerning natural resource management to a great extent. The following section illustrates how this debate has played out in the land-tenure context; first by stimulating far-going nationalizations and state-run management schemes, and second, with pervasive government failures at hand, more recently spurring privatization and land titling as well as community based solutions.

**LAND TENURE**

Land tenure is in essence another name for property rights to land. Following the property rights definition above, land tenure is defined as “...the mode by which land is held or owned, or the set of relationships among people concerning the use of land and its product” (Payne 1997:3). A land tenure system is thus the institutional arrangement under which people gain access to land, and it determines the rights over the fruits of invested effort (Deininger 2003; Toulmin & Quan 2000; Bruce 1998a; Bruce & Migot-Adholla 1994). As such, land tenure governs expectations and human relations, and is of crucial importance for investments, technology adoption, and more – in this case with respect to land and related resources like wells or water infrastructure. The remaining sections of this chapter reviews the land-titling debate and concludes by highlighting the importance of moving beyond this debate and instead focus more explicitly on the role of the government in making property rights truly secure.

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54 Complete and private property rights would ensure that all costs and benefits had a price and were allocated efficiently. However, Coase’s reasoning seems to build upon the assumption of zero transaction costs – i.e., that it would be costless to introduce such a property rights system. Yet, the allocation of property rights to a pollution free environment, or the collection of user fees for people using street lights, naturally comes with high costs.
CHAPTER 2

The Naïve Theory of Property Rights

African land tenure systems are usually a mosaic derived from colonial legacy, current economic circumstances, and ecological characteristics (Toulmin & Quan 2000; Bruce 1998a). Central governments were for long regarded to be the most appropriate custodians of all natural resources like land, water, forests, and fisheries. In many developing countries, and in Africa in particular, many governments nationalized land and related resources at the time of independence (Mabogunje 1990). Public land ownership was imposed as a way of promoting national integration, detaching from colonial land policies, or in some cases simply because of socialist beliefs. Existing property rights systems (often customary systems with resources held in common) were in many cases deemed irrational and outdated. Yet, the ambitions of the African states were generally greater than their land management capacities, and state control of land has subsequently been criticized for a number of shortcomings such as bureaucratic inertia, slow response to changes in demand, and administrative overload in general. Moreover, tenure systems based on state control of land have been criticized for being unpredictable, spurring overuse and inefficient resource management (see Toulmin & Quan 2000). For example, the nationalization policies often resulted in clientelism where the beneficiaries of the system were government officials or other clients of the government rather than regular citizens and resource users. Eventually, researchers and scholars started to look for other solutions, which led to the introduction of private land tenure.

Following the private property rights paradigm, one of the proposed advantages of private property rights to land is that it stimulates investments since the land can be used as collateral and since the owner gets all the benefits from improvements. That the rights are transferable entails that on an efficient market, unproductive users will be offered a price for their assets from someone more capable. By this process it is argued that all land and resources eventually will be allocated to their most efficient use (Furubotn & Richter 1997; Besley 1995). However, this economic analysis

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55 Colonized countries generally exhibit particularly complex tenure systems since the colonial rule typically imposed formal property rights on top of the existing customary systems, or exploited traditional authorities as a means of controlling the population (Kyed & Buur 2006; Bruce 2000). Once independent, tenure reform was undertaken by countries of all ideological stripes: some embarked upon nationalization programs vesting all rights to land with the state while others opted for private land-holding schemes. However, different tenure systems have continued to co-exist, and an individual who claims land under one system cannot be certain his claim will not be challenged by someone referring to another system (Firmin-Sellers 1995). Since the co-existing systems often draw their legitimacy from different sources, many people simultaneously try to make their customary rights legal in the formal system and their modern rights legitimate in the customary system (Benjaminse & Lund 2003).

56 More specifically, private land holding can be either leasehold or freehold. Leasehold entails paying a rent during a specified period of time, whereafter the land reverts back to the government or the private lessee. Freehold on the other hand is held in perpetuity and consists of individually owned land with a minimum of restrictions (Payne 1997).
of property rights takes a rather simplistic evolutionary outlook (Platteau 1996). In fact, many economists postulate that property rights will arise spontaneously when the gains from imposing such an institutional arrangement exceed the accompanying costs. Pioneering scholars like Alchian suggested that inefficient institutions inevitably give way to more efficient ones due to competitive pressures and changed relative prices. Demsetz developed this reasoning further, adding the fact that there are significant costs of transacting. In short, he argued that property rights develop to internalize externalities, but that they will not arise if the gains from internalization is not higher than the costs involved in creating and upholding such a system (Demsetz 1967). The central evolutionary perspective is nevertheless the same: as land becomes more valuable, collective management is replaced by individual titles since with increasing scarcity, the costs of imposing a system of private property rights become lower than the benefits from doing so. Following the evolutionary reasoning, private property rights soon became regarded as the only efficient property regime in many policy circles. Long-term investments in immobile goods like water infrastructure and housing have therefore been suggested to suffer from disincentives assumed to be inherent in collective land holding systems (Deininger 2003; Joireman 2000).

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57 Advocates of private property rights, suggesting registration of individual land titles, often seek support in the evolutionary perspective but are criticized on multiple fronts (Chimhowu & Woodhouse 2006; Platteau 1996). Economists who in fact do believe in the evolutionary account and who argue that increased scarcity and changed relative prices stimulate a move towards private property rights criticize state-led land-titling programs for being premature, i.e., if the process is evolutionary, let evolution have its way! Other scholars of public policy, generally more positive to state-driven development, emphasize the widespread lack of state capacity to successfully undertake land-titling programs; many developing countries simply do not have the technical and administrative capacity needed to implement a comprehensive system of private property rights, making such a system not viable (Platteau 2000). Anthropologists often put forward a more fundamental critique against land titling as they contend that both titling advocates and the evolutionary perspective in general have misunderstood the nature of African customary land tenure. In this perspective, institutional theory provides a much too mechanistic approach to the relationship between institutional arrangements and human behavior, and the Western notion of private property rights can simply not harness the complexity of African land tenure (Cousins et al. 2005; Benjaminsen & Lund 2003).

58 Customary land rights (also referred to as communal) often comprise a mixed system of individual, family, or group rights established by birth, effort, or membership in a community. Different users often have different rights to the same plot of land; a particular piece of land can for example be an individual or family asset in the cropping season but a commons in the grazing season (Bruce 2000; Cousins 2000a). Customary systems are diverse and dynamic but share the common characteristic that property rights are vested in the community, the tribe, or group. In a customary system, individuals get use-rights or other rights depending on tradition and kinship, while the land itself is usually inalienable. The rights can be everything from rights to residency or cultivation to secondary rights such as the right to graze animals, or the right to passage etc. Although the secondary rights are often of uncertain duration and might seem insecure to an outsider, they may provide sufficient security to the people concerned. Collectively held land may imply some efficiency losses, but these are generally regarded to be compensated for by the high level of equity and the fact that land in rural areas is usually abundant (Payne 1997). Attaining property rights by membership in a community or by kinship for example enables poor households to gain access to land and housing they would otherwise not be able to afford (but as with all interest groups this is of course at the expense of households not included in the community).
Customary rights and collective land tenure have thus been conceived as an obstruction to economic take-off and efficient land use, since such systems supposedly do not provide sufficient incentives for undertaking investments, and are perceived not to ensure that land is allocated to where it is used most efficiently. In analogy with the *logic of collective action* and the *tragedy of the commons*, customary land systems are for example said to hamper investments since the individual doing the investment will only receive a portion of the rewards from the investment. Yet, advocates of customary land rights generally refer to the *tragedy of the commons* as a persistent myth dominating the policy debate (Toulmin & Quan 2000). These scholars refer to the evolutionary economic perspective as the *naive theory of property rights* and instead contend that experience from the field shows the limited applicability of these conceptualizations (Platteau 2000). Accordingly, most resource systems open to a collective of users are in fact governed by some kind of institution, and the disastrous open-access situation described by Hardin therefore rarely occurs in the real world.

A second myth dominating the policy recommendations is the proposed need to title land (Toulmin & Quan 2000). Since many attempts to reform property rights to land have failed, providing individual titles are simply not necessarily the way to go. On the contrary, reliance on communities presents several advantages and imposing rules and procedures on them from the outside may prove to be counterproductive (Platteau 2000; Cousins 2000b). In fact, communal property rights systems can under some circumstances conserve and manage resources better than private arrangements: Firstly, their inheritable use rights provide incentives for long-term investments. Secondly, since they are defined at the extended family or community level they often provide enough security to encourage investments, as in Ostrom’s cases. Thirdly, the variety of uses of a single land area recognized by customary rights optimizes productive potential. Finally, customary systems supply land even for low income households and provide for intra-community loans and rentals (Quan 2000b; Gibson, Lehoucq, & Williams 2002). In conclusion, although customary tenure systems traditionally have been argued to lack clarity and provide negative incentives for investments and long-term considerations, many praise the dynamism and inclusiveness of such systems, and they are experiencing somewhat of a revival also in policy circles. Many development economists previously in favor of land titling have come to conclude that under certain circumstances, customary land tenure can in fact be the optimal tenure

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59 Bromley has for example repeatedly cautioned policymakers and scholars to give developmental advice based on flawed causal models, and subsequently suggest solutions to land management problems that may worsen the situation. In conclusion, “Constructing a simple model showing that “common property” will result in more erosion than “private property” explains very little. More seriously, such models – when employed in the service of prediction – quickly become the basis for normative prescriptions without the benefit of empirical evidence or conceptual logic” (Bromley 1998:88).
However, there are also concerns over the fact that customary tenure potentially can give local elites a disproportionate influence over land management. More precisely, without checks and balances of a system with clear power-sharing mechanisms, traditional leadership tends to give male elders the freedom to interpret custom as they find suitable. Consequently, such systems often bring disadvantages for many of the people living in rural areas – particularly for women (Cotula, Toulmin, & Hesse 2004; Lastarria-Cornhiel 2004; Bob 2002; Hilhorst 2000; Cousins 2000a).

Moreover, traditional authorities have in some countries been used as an instrument for consolidating state power over rural inhabitants. Decades of colonial rule have in this way seriously distorted the content of customary tenure and the pre-colonial system of chieftainship has in some cases been corrupted by the colonial system of indirect rule, with the consequence that the so-called real tradition has been wiped out. For customary tenure to be truly legitimate and effective, it might thus need to be complemented by reforms within the communities themselves. In order to engage groups and individuals traditionally disadvantaged in the political process, it might for example be necessary to increase the possible avenues for voice and participation (Bruce 1998a; see also Kyed & Buur 2006).

Clear from the above account is that the property-rights debate is vivid and characterized by widely differing stand points. Yet, the argument introduced below and developed in Chapter 3 contends that the role of the government is of central importance in all the different property rights systems, and what should be given greater attention is the security of the rights rather than their form or type.

BEYOND THE LAND-TITLING DEBATE

In this final section of Chapter 1, I argue that an important weakness of the debate over whether property rights to land should be held by the state, be vested in individuals, or be granted to collectives is that it overlooks the important issue of what really makes property rights secure.

The Security of Property Rights

The ultimate goal of land tenure reforms is usually to increase tenure security. However, since the concept of tenure security suffers from some confusion, I instead use the term secure land tenure as the variable that theoretically stimulates investments and increased water coverage. The most fundamental problem associated with the concept of tenure security is, I

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60 For example the World Bank (2003) now argues that customary systems of land tenure in many cases are a response to local-specific conditions, and that they often constitute a way of managing land relations that is more flexible and more adapted to local conditions than more centralized approaches (see Fitzpatrick 2005; Deininger 2003).
argue, that it is not only used as an independent and investment-enhancing variable (just like I use secure land tenure as an independent variable produced by land tenure backed by a credible commitment), but also in some cases as a dependent variable including for example access to drinking water in its definition (which is my dependent variable).

To start with, in the seminal work of Bruce and Migot-Adholla, tenure security is defined as: “…when an individual perceives that he or she has rights to a piece of land on a continuous basis, free from imposition or interference from outside sources, as well as ability to reap the benefits of labor and capital invested in that land, either in use or upon transfer to another holder” (Place, Roth, & Hazell 1994:19). Payne in turn measures tenure security according to five criteria: the extent to which residents (1) are protected against arbitrary evictions and demolition, (2) are encouraged to invest in housing improvements, (3) have access to infrastructure and public services, (4) value property according to market value, and (5) whether their property can function as collateral for credit (Payne 2004; Payne 2002). While this measure certainly is comprehensive, I argue that its analytical usefulness is questionable since it does not assess the causal relationships among the variables included. Durand-Lasserre and Royston have similar problems in their definition, where they also interchangeably define tenure security as the absence of any threats of forced eviction and as access to basic services. In this way, tenure insecurity sometimes is the same as malfunctioning services while later on, the malfunctioning services are a result of tenure insecurity or in some cases a cause thereof. To be fair, Durand-Lasserre and Royston eventually settle for a definition where tenure security ultimately is a guarantee for legal protection against forced eviction, which in turn is said to encourage investments in housing and increase access to services (Durand-Lasserre & Royston 2002b). This is also the definition used by the UN-Habitat: it is the threat of removal and the lack of legal recognition that is the main cause of tenure insecurity. The view of tenure security as some form of legal recognition plus a low threat of eviction basically corresponds to my definition of secure land tenure as land tenure made secure by a credible commitment. Yet, while the tenure security definition has no way of telling how the low threat of eviction is realized, I argue that the credible commitment conceptualization offers more precision and stringency, and also provides an account of the causal mechanisms behind secure land tenure.

There are, however, other scholars who argue that the assertion that legal recognition and protection against eviction is necessary to promote investments may be faulty; long-term investments may as well be a way to establish claims to land and the threat of removal can be decreased by

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61 Even though they use slightly different terminology, these authors thus emphasize all the aspects of the property rights definition above; the right to use, the right to derive income from, the right to exclude and the right to transfer.
investing in the land. In this line of reasoning, tenure insecurity can in fact act as an incentive to invest (Sjaastad & Bromley 1997). By this logic, land investments are often public displays of ownership serving to communicate that a transaction has taken place (Benjaminse & Lund 2003; Deininger 2003). In some cases, the causality may thus be the reverse of what is normally assumed by the land tenure argument, and legal land holdings can in fact be a consequence of, rather than a prerequisite for, investments (Woodehouse 2003; Plateau 2000). The security-leads-to-investment-proposition can thus be turned on its head. Once public services are extended, for example, the sense of security might increase and the settlers can thus have a feeling of being recognized even though they do not have formal ownership. For sure, these arguments deserve some merit. Part of the critique, however, is only a reminder of the fact that it is not necessarily private property rights and land titling that increase the sense of security; i.e., customary systems can also provide secure tenure. While the argument that the causality runs from access to drinking water via investments to secure land tenure is clearly fundamental, it is still not in any way devastating for the claims of property-rights theory. In fact, not many causal relationships are as one-directed as researchers would like them to be, and the suggestion that gaining access to drinking water spurs some important feedback mechanisms sounds quite plausible. Although the causality between threat of eviction and access to drinking water might go both ways in a reinforcing spiral, this sort of critique, however, also implicitly admits that having land tenure is more secure and preferable than the alternative. If this were not the case there would simply be no reason for people to try to gain land tenure by investing in the way this argument claims. Theoretically, this critique is also consistent with the credible commitment argument developed here as it holds that if people living illegally are to invest a considerable proportion of their limited resources into improvements in living conditions, they need to experience some form of security to start with (Payne 1997).

Taken together, it is analytically (and empirically) important that the critique admits the fact that people strive for secure land tenure in order to increase the likelihood of being the ones to benefit from their own future investments. In this way, the researchers criticizing the predictions of property-rights theory do not contradict the fact that secure land tenure

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62 This is supported by the observation that “...any evidence of recognition by the authorities and proof of residence are considered important to establish a claim. Examples are ration cards of the public distribution system, identity cards, letters addressed to the family, tax receipts and electricity bills” (Banerjee 2002:51). Yet, the argument that access to drinking water comes before investments and land tenure has been contradicted empirically; where no security exists, tenants have for example been shown to hold back investments and improvements due to threat of imminent eviction (Durand-Lasserre & Royston 2002b). Previous studies also show that infrastructure improvements that deviate from actual expectations of permanent tenure are not enough to stimulate investments. In addition, settlers have in some cases been forced away despite getting services provided (Payne 2002; Payne 1997).
leads to investments; they just add that investments can also be part of a strategy to further increase the security. However, the critics are most likely right in their assertion that land tenure in the simple form of a legal title does not necessarily lead to investment and higher water coverage levels. The argument here is that whether it does so fundamentally depends on the actions of the government; the suggested reason for why individuals are reluctant to invest is thus that the central authority – the government – has failed to credibly commit to secure property rights, whatever type or form they take. Consequently, the scope of investments that would increase water coverage levels depends ultimately upon the degree of confidence settlers place in government support and tolerance. The government acts as the ultimate guarantor and enforcer of whatever land tenure system is in place and, more precisely, the potential uncertainty therefore derives from the fact that the individual cannot predict whether their rights will be protected (Firmin-Sellers 1995; Firmin-Sellers 1996; see also Barzel 2000; Barzel 2002).

In conclusion, what the property-rights scholars of various persuasions tend to overlook, I argue, is that to be truly secure and stimulate investments, land tenure needs the backing of a credible commitment – only then is the threat of eviction and confiscation low enough to stimulate investments and water coverage. The heated debate over types of property rights in this way overlooks the most fundamental aspect of secure property rights – namely the word secure (see Williamson 1999). As we will see in the following chapter, however, in order to fully understand the dynamics inherent in property rights, it is important to examine the political economy of property rights. In the next chapter I argue that it is flat out wrong to assume that the government acts benevolently and neutrally enforces property rights with everyone’s welfare in mind (Acemoglu & Robinson 2006; Sened 1997). One should simply not hold naive assumptions about the government’s willingness to enforce property rights, and instead, at center stage in Chapter 3 is the interplay between the government and the governed, and the self-enforcing invest-protect equilibrium that credible commitments create.
CREDIBLE COMMITMENTS

THE CREDIBLE COMMITMENT ARGUMENT

The argument developed here contends that the dominating debate over form or type of land tenure generally neglects the most crucial aspect of property rights, namely the issue of credible commitments. Institutions, and property rights in particular, are generally recognized as cognitive, coordinative, informational, and normative elements that generate a regularity of human behavior by enabling, guiding, and motivating individuals to undertake investments and productive activities (Greif 2006). Yet, I argue that the general story of property rights dynamics accounted for in Chapter 2 fails to grasp why some countries have secure property rights that promote investments and increased water coverage levels while others are far less successful. And, equally important, I also argue that previous studies lack a coherent account of how property rights are made secure and investments stimulated (see Congdon Fors & Ölsson 2007; Hafer 2006; Greif 2006; Goldsmith 2004; Hirshleifer 1995; Firmin-Sellers 1995). However, there is now a general consensus that institutions – and property rights institutions in particular – are indeed crucial determinants of the differing development trajectories among both countries and resource systems (Libecap 2005; Rodrik, Subramanian, & Trebbi 2004; Deininger 2003; Acemoglu, Johnson, & Robinson 2002; Acemoglu, Johnson, & Robinson 2001; Meinzen-Dick et al. 2002; Hall & Jones 1999; Collier & Gunning 1999; Baland & Platteau 1996; Knack & Keefer 1995). But if we do not know what makes citizens in some countries enjoy the benefits of secure property rights while citizens in other countries struggle under uncertain conditions, there is simply not much prospect of progress or successful reform. Therefore, we need to look further into the issue of credible commitments.

Recall the message from Chapter 2: I interpret property-rights theory as a theory of incentives, and different types of property rights systems have traditionally been ascribed investment incentives of varying quality – which has spurred heated debates over the viability of the competing systems. However, the argument in focus here contends that the definitional debates in fact are misinformed and that the incentives to invest in assets necessary for increasing water coverage levels do not stem from any particular type or
form of property rights per se. Instead they are the product of whether the
government is credibly committed to secure the citizens property rights. To
fully understand property rights and the investment incentives that follow, I
hence argue that we have to turn our attention to the fundamental political
dilemma of credible commitments: a government strong enough to protect
property rights is also strong enough to violate the rights. Therefore, to
make citizens invest in wells, rain harvesting devices, water infrastructure,
and housing improvements on the basis of those rights, the government
must credibly commit not to use its confiscatory powers arbitrarily. In
short, I argue that although the definitional aspects of the various types of
property rights are reasonably well understood, the factors most important
for making property rights secure are not. While property rights are usually
assumed to determine incentive structures in society, the conjecture here is
that it is in fact credible commitments that ultimately determine whether
property rights are able to constitute an investment-enhancing incentive
structure (see Acemoglu & Robinson 2006; Bates 2006; Field 2005; Greif
2005; Goldsmith 2004; Haber, Razo, & Noel 2004; Frye 2004; Barzel 2000;
Grossman 2000; Weingast 1997; Weingast 1995; Firmin-Sellers 1996;
Firmin-Sellers 1995).

According to this argument it is simply not possible to explain
differences in water coverage level without addressing and analyzing the role
of the government in which the incentive structures, i.e., land tenure
systems, are embedded. Consequently, taking security of property rights and
investment incentives seriously, the argument developed here, and tested in
Chapter 5, is that differences in access to drinking water can be explained by
differences in the extent to which governments have established credible
commitments not to violate citizen property rights. Hence, to fully
understand why some countries have been able to increase the proportion
of people with access to drinking water whereas other countries have made
no or much slower progress, researchers and policymakers need to focus

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63 Firmin-Sellers has for example tried to draw attention to this area: “...just as we cannot discern the
nature of customary tenure until we explore the linkages between community and state, we cannot
determine the productive potential of any property rights system until we assess the political process by
which those rights are defined and enforced: Abstract debates over the efficiency of customary land
tenure and private property are irrelevant, because the desirability of either system depends upon the
actors’ ability to enforce property rights at the national or the local level” (Firmin-Sellers 1996:151).
Sened has also recognized the importance of the surrounding institutional framework for making
property rights secure: “...I argue that the origin of private property and related individual rights is to be
found in the political institutions that grant and enforce them” (Sened 1997:1).

64 William Easterly articulates the importance of getting the incentives right as follows: “...the search for
a magic formula to turn poverty into prosperity failed. Neither aid nor investments nor education nor
population control nor adjustment lending nor debt forgiveness proved to be the panacea for growth.
Growth failed to respond to any of these formulas because the formulas did not take heed of the basic
principle of economics: people respond to incentives.” The argument continues: “The incentives that are
important are the same as already discussed. Good government that doesn’t steal the fruits of workers’
labors is the essence of it” (Easterly 2002:143).
not only on land tenure, but also on the commitment mechanisms underlying property rights to land.

In order to test the validity of this claim empirically, the next sections examine its theoretical foundations and take a first step towards making the concept operational.

**THE BASIC COMMITMENT PROBLEM**

Close to every economic decision involves an inter-temporal dimension: put the seeds in the ground today and harvest tomorrow, invest now and reap the rewards in the future. The inter-temporal nature of many decisions, however, adds a delicate commitment problem to economic activity. Assume two actors engaged in a potentially mutually beneficial transaction. Also assume that we live in a dynamic world, where there is a tomorrow after today. In this setting, Agent X has the opportunity to undertake an activity Ab at time \( t_0 \). But given his interdependence on Agent Z, he will undertake this activity only if he expects that Agent Z will perform a certain action Bb at time \( t_{+1} \). Agent Z in turn would like to see Agent X undertake activity Ab in time \( t_0 \), and therefore promises to perform action Bb. Once Agent X has performed the activity in time \( t_0 \), however, Agent Z gains the utility in time \( t_{+1} \) without performing the action Bb. Consequently, he has no incentives to really perform action Bb. Yet, looking ahead and reasoning backwards, Agent X rationally anticipates this breach of agreement and logically chooses not to undertake activity Ab in time \( t_0 \). The inability of Agent Z to credibly commit to fulfill his part of the agreement in time \( t_{+1} \) thus holds back mutually beneficial transactions and makes both actors worse off. The logic is simply that Agent X has to give before receiving. But at the time of giving, all he gets from Agent Z is a promise of future rewards. And if Agent Z’s commitment to follow through on this promise lacks credibility, i.e., if there are no clear-cut incentives for Agent Z to stick with the promise, there will be no giving at all from Agent X (Greif 2006).

Many decisions fit this basic account: they are inter-temporal in nature and involve sequential moves.65 Think for example of traders delivering goods today but receiving payments tomorrow. The customer would like the goods produced and delivered to his front door, but once the goods

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65 For example, one of the earliest conceptualizations of the commitment problem concerns the positive relationship between unexpected inflation and aggregate output in the economy. While wage setters negotiate labor contracts that set the growth rate of nominal wages equal to the expected rate of inflation, policy makers try to simultaneously stimulate output and control inflation. Yet, wage setters anticipate the policymakers’ trade-off and raise their inflationary expectations so that expected inflation equals actual inflation. However, this results in a situation where inflation is high although output is not stimulated. In order to remedy this problem, the most common institutional solution is to delegate monetary authority to an independent central bank that has a stronger distaste for inflation than the government has (Bardhan 2005; see also Prescott 1977).
arrive there is not really any point in paying since he has already received the goods. Yet, had the customer not credibly committed to pay by entering into some form of contractual agreement, the trader would have refrained from sending the goods in the first place. In fact, we do not even have to assume two actors to see the potential problems. Agents X and Z might be the same individual but with inconsistent time-preferences and a problem of self-control. This individual knows that he can gain in the future by performing Ab in time t₀ and Bb in time t₁. However, he might not trust that he, once he has performed Ab, has the discipline to also perform Bb in time t₁, so he refrain from performing Ab altogether (Greif 2006).

For our purpose, the basic but fundamental commitment problem is found in the relationship between citizens and the government. In our setting, the government has a lot to gain in terms of tax revenues in time t₁ from citizens undertaking investments in time t₀. The citizens in turn depend on the government not to violate their property rights and confiscate all of their produce in time t₁. However, if they cannot trust the government to honor their property rights and only take a fraction of their produce in time t₁, it would not be rational to undertake the investments in time t₀. And they therefore refrain from such investments. The government’s commitment in time t₀ is under such circumstances simply not credible since in time t₁ there will really be no incentives to act on the promise. Rational anticipation of the government’s strategic incentive to violate the agreement once citizens have made a first cooperative move thus holds back overall investment rates in society. Hence, the government needs to credibly commit to protection rather than predation.

In our case, simply putting a tenure system in place is thus not enough to increase investments and water coverage levels; if the citizens are to be assured that they are the primary beneficiaries of their investments, the government must also establish a credible commitment to make the rights secure also in time t₁. The next section explores the theoretical origins of this argument.

THE ARGUMENT’S THEORETICAL ORIGINS

In the spirit of Hobbes, the first threat to property rights comes from other private parties. Looking for remedy, citizens therefore trust coercive powers in the government, and the government in turn sets out to protect citizens against each other. Private predation seriously affects citizen incentives to invest and produce, and if there is no coercive power to protect individuals from private predators, then mutually beneficial activities may not take place (Dixit 2004). Yet, like all economic problems, knowing that people are willing to pay for turning potential gains from exchange or investment into actual ones, the private-predation problem provides incentives for others to come up with a solution and charge a fee for its use. The government for
example protects citizen property rights in exchange for tax revenues. Similarly, when the government does not have sufficient coercive powers, there are other agents with a comparative advantage in violence or contract enforcement who get incentives to solve the problem of protection (Fiorentini & Peltzman 1995; see also Benham 2005; Bates 2001; Hicks 1995; Root 1994).

For example, in the typical frontier settlements in the Wild West, the government was generally weak and citizens therefore often sought comfort in hiring private agents to protect their property rights. In informal settlements in many developing countries, upgraded versions of such private regulators similarly fight for turf and aspire to become the property-rights protectors of different areas in exchange for a proportion of the wealth and produce of the residents. Mafia leaders generally assume a similar, even though slightly more sophisticated, protective authority and sell their protection to agents who are not sufficiently protected by the statutory system or who simply do not trust the government to protect their rights (Gambetta 1993). Yet, hiring roving bandits or stationary mafia leaders to protect property rights has serious weaknesses and both solutions come with considerable efficiency losses. Nonetheless, the practice clearly illustrates that the government and the mafia in fact supply similar products and that property rights protection is in high demand. Being protected by the mafia is of course not optimal, but it is obviously better than not being protected at all.

What I primarily focus on here, however, is the extent to which the protective authority has committed to really secure the rights of individuals. This focus mirrors Locke’s standpoint where the threat to property rights first and foremost is to be found in the coercive state itself. According to Locke and the argument put forward here, the basic problem of property rights is simply that, “...any government strong enough to abrogate and define property rights is also strong enough to abrogate them for its own benefit” (Haber, Razo, & Noel 2004:2; see Weingast 1995). In fact, the agent that is supposed to be the most efficient protector of citizen property rights is also paradoxically in many cases the most serious threat. Hence, while it is true that many governments do protect against confiscation, there

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66 “We regulate any stealing of his property and we are goddamn good at it too” is for example the slogan repeated by Billy the Kid and his companions in the feature movie Young Guns.

67 Mafia protection is more likely not a good, but a lesser evil. What is clear, however, is that the state and the mafia by and large deal in the same commodity (Gambetta 1993).

68 Mill made a similar point when he highlighted the problem of establishing both protection by the government and protection against the government. He also argued that protection against the government is more important because against all other predators there is hope of defending oneself (Mill 1848). In addition to Locke’s and Mill’s theoretical contributions, Hume at an early stage proposed three fundamental laws of nature crucial for human society: the permanence of possession, the ability to transfer property by consent, and the performance of promises (Hume 1969 [1739-1740]). The first two laws have been widely assessed in debates on land tenure types. Yet in this often either mathematical or anthropological exercise, the aspect of honoring promises has generally been neglected.
are still many governments around the world that are the primary vehicles of such activities (Hall & Jones 1999).

The remaining sections of this chapter look closer at the rationale behind establishing a credible governmental commitment, and discuss what such a commitment constitutes more precisely. Finally, the logic and importance of credible commitments are demonstrated in a game-theoretic framework.

**TO PROTECT OR PREDATE: A THEORY OF THE STATE**

Some early scholars of property rights in some respect did take the state and its performance of promises seriously and concluded that a theory of property rights must also be complemented by a theory of the state (Furubotn & Pejovich 1974). 69 The reasoning about credible commitments therefore connects to the existing theoretical debate over the state’s cooperative or coercive nature. Liberal scholars generally depict the state-society relation as a social contract where the state provides public goods in exchange for revenue. Neoclassical and Marxist scholars on the other hand agree in their view of the state as predatory, in constant pursuit of enforcing property rights beneficial to its immediate interest. The basic understanding of political power thus comes in two variants: the first is a cooperative account depicting how individuals get together as equals and establish a central authority that can solve common problems, while the second sees the origins of political power as stemming from the ability of some actor with a comparative advantage in violence to establish a coercive force and extract resources as efficiently as possible from the constituents of a particular geographical area (Rothstein 1996; see also Goldsmith 2004; Bates 2001; Nye 1997; Evans 1989). Other scholars also find the dichotomy useful. North for example distinguishes between a predatory theory of the state and a contract theory of the state, but importantly also eventually tries to combine the two approaches (North & Thomas 1973; North 1981; North 1990). Following this approach, a growing consensus among economists and political scientists now suggests that the basic outline of North’s story, that states are simultaneously predatory and cooperative, is correct (Acemoglu & Robinson 2006; Goldsmith 2004; Bueno de Mesquita et al. 2003; Firmin-Sellers 1996; Firmin-Sellers 1995; Levi 1988). 70

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69 Problems associated with developing such a theory have, however, refrained scholars from seriously investigating the role of the state and examining how the government can credibly commit to protect, and not violate, property rights. Although property-rights theory contends that state ability to secure property rights is essential for stimulating investments crucial for increasing water coverage levels and economic development in general, researchers have had a tendency to overlook the fundamental importance of the underlying political dimension of property rights (Acemoglu & Robinson 2006; Bueno de Mesquita et al. 2003; Van de Walle 2001).

70 See for example (Bates, Greif, & Singh 2002) for a discussion about that the state can be predatory or developmental, but that the specific properties of the state emerge endogenously.
But why would rulers, with the monopoly of force, leave resources in the hands of others? I argue that the reasons are certainly not philanthropic. The often hoped-for benevolent dictator in fact contrasts empirical realities and reveals a serious analytical inconsistency: why should we assume that the leader will act for the common good when we at the same time assume that his subjects are more or less strictly self-interested? (see Clague et al. 1996). Indeed, that governmental actors are exclusively cooperative non-strategic maximizers of citizen welfare has repeatedly been proven a heroic assumption (Weingast 2005). However, at the same time there are many examples of despotic rulers who have provided their citizens with some rudimentary public goods, although such seemingly good-hearted behavior can, I argue, usually be traced to the ruler’s own welfare-maximization. From the ruler’s point of view, there is in fact an obvious logic behind embarking on a protection strategy. Since under predatory rule, citizens lose not only what they possess today but also the incentive to produce for tomorrow, an exclusively predatory ruler will have less productive subjects and his tax revenue will in the nearby future therefore decrease. There are hence considerable gains from protection of property rights – both for the state and for the citizens. Complementing coercive capacities with cooperative assurances is a way for the strong to give their weaker counterparts a positive incentive to engage in productive activities, and not only stimulates citizen investments but also boosts the ruler’s long-term revenue collection (Marcouiller & Young 1995; Englebert 2000). An example of where the prospect of future benefits makes the government choose a protection strategy is given in the next section.

The Productive Use of Coercion

The example here is taken from Olson’s stationary bandit model (Olson 2000; Olson 1993; McGuire & Olson 1996). Olson’s account starts with an anarchic society in ancient China where roving bandits sought to confiscate as much as possible of ordinary people’s wealth before someone else did. Given the fierce competition among various bandits, as much as possible as fast as possible became the motto. Yet, living under constant fear of confiscation; citizens soon lost all incentives to invest. And, as time passed, there was nothing left for the bandits to confiscate. To make citizens start investing again, some bandits settled in one location, started to uphold law and order, and refrained from total confiscation of people’s wealth; they

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71 Even most parasitic governments thus occasionally provide everything from protection against even more parasitic actors in society to public services and infrastructure (Nye 1997).
72 Which can make it difficult to maintain an army or safeguard the ruler’s survival in other ways (Greif 2005).
73 However, as we will see later, to accomplish this, the rulers must lessen their capacities for coercion. As argued by Barzel, the argument is thus Hobbesian in spirit but stands Hobbes on his head since the ruler gives up some of its freedom in order to gain his subjects’ trust (Barzel 2000).
simply promised to collect only a smaller percentage of the produce of the citizens in return for property rights protection. Such stationary bandits clearly had a longer time perspective than the roving bandits and were hence not only more successful at stimulating investments, but also managed to increase their own revenue bases.74

Another example is the Mafia. Generally, the business climate is more conducive in an area under the protection of a powerful Mafia organization than in an environment where competing criminals fight for turf (Dixit 2004; Fiorentini & Peltzman 1995). For sure, the Mafia puts a heavy burden on businesses in their area, but then again there is a demand for the kind of protection they offer. The Mafia generally sets out to predate on the same citizens for a longer period of time and is therefore eager to provide at least a minimum of incentives for investment and wealth generation. If they were to confiscate all produce today, they would simply have no revenue base for tomorrow.

Hence, both the ruler and the ruled are to benefit from a system where the ruler acts as a stationary bandit and enforces property rights while the citizens invest on the basis of those rights. Under such a system, citizens know that the ruler takes only a portion of total revenue through taxation, and they are therefore willing to invest. But, importantly, such a welfare-enhancing spiral is elusive. The logic of credible commitments suggests that even though the bandit is stationary, investments are never truly secure under banditry rule if no credible commitment is in place. Recall the commitment problem above. At any given time the ruler has an incentive to confiscate people’s wealth and claim all revenue for itself. Knowing this makes the citizens reluctant to invest, and as time passes both the ruler and the ruled end up suffering.

A SELF-ENFORCING EQUILIBRIUM

The important argument put forward above is that property rights enjoyed by individual agents are fundamentally determined by political institutions that define and enforce them. Property rights depend on some form of monopolistic coercive force, and the traditional argument is that in a modern world, this force comes from the government. However, in order to fully understand property rights institutions, we must also take the issue of credible commitments into account. Clear from the above discussion, coercion is not enough to generate a sense of security, or an expectation that the ruler’s promise to protect property rights is credible.75 At the same time,

74 This can be seen as: “...the economically productive use of coercion” (Greif 2006:28; see also Sened 1997).

75 And this is important also in developed countries. History proves that there is no reason to believe in any “good-chaps theory” of government.
in the government-citizen context there is no third party or outside institution that can facilitate such a credible commitment. Commitment problems are normally solved by enforceable contracts. A customer is for example usually constrained in his actions by the surrounding institutional framework. If he fails to pay, then the retailer can rely on a third party to enforce the contract and make the customer pay. The retailer would simply file a complaint and an outside agency would make the customer pay or in some way punish him. Yet, when we move to the political arena, similar contractual relationships are not very useful. As an agent hired by the citizens to enforce property rights, the government has an informational advantage, and lacking monitoring capacities the citizens will therefore not believe that the contract between them and the government consists of a true credible commitment. Since there is no outside agency to enforce the contract, the citizens can in fact not trust that the government will not give in to the immediate confiscatory temptation. If it does, then “…the agent violating the contract is precisely the party supposed to enforce it” (Acemoglu & Robinson 2006:135).

Hence, in order to truly capture the relationship between the ruler and the ruled, I argue that we must investigate the institutional micro-mechanisms underpinning a credible commitment’s emergence, stability, and dynamics. For this reason, we must study institutions as endogenous in the sense that they are self-enforcing and that all motivation is endogenously provided. A self-enforcing institution simply means that each actor involved in a transaction governed by the institution behaves in a way that helps motivate, constrain, guide, and enable others to behave in a way that reinforces the way in which the transaction is governed.76 Such an analysis requires that each actor’s incentives to act in an institution-reinforcing way are explicitly taken into consideration. However, previous studies, I argue, have by and large overlooked such endogenous incentives and instead regarded institutions as exclusively politically determined rules that are imposed exogenously and top-down.77 In contrast, the point here is that institutions are more than rules and that a narrow institutions-as-rules focus ignores important institutional dynamics. In fact, without incentives to comply, rules and contracts are merely instructions. And instructions can be ignored.78 Incentives to abide by rules should thus not be taken as exogenous or as a product of third party coercion. Instead, a thorough analysis must consider the incentive structure facing each party involved in the interaction. Only then can we understand private order, i.e., situations

76 While the notion of self-enforcement developed in this study by and large corresponds to the historical institutionalist notion about path dependency, I here have the ambition to further explore the incentive structure underpinning such a process.
77 Historical institutionalism usually argues that institutions structure the preferences of individuals whereas a rational choice perspective is more inclined to argue in the opposite direction: the preferences of individuals structure institutions (Blyth 2002).
78 At least in a subtle way: agents might obey but not comply.
where order prevails even though a third party enforcer is missing. In fact, since institutions are a product of human behavior as well as a determinant thereof, it is valuable to see them as private order arrangements also in cases when governments do exist. True, it can be helpful to assume that the government has a monopoly over coercive power and enforces contracts and property rights. However, since political order and effective governments are outcomes of human behavior as much as determinants thereof, a closer examination of the incentives influencing the behavior of the relevant actors is motivated. In this study of incentives and self-enforcing institutions, we thus need to take both agency and structure into account and study institutions as endogenous in the sense that they are self-enforcing. In other words, the behavior and expected behavior of others make each individual act in a manner that contributes to motivating, guiding, and enabling others to behave in a manner that led to the institutional elements to begin with (Greif 2006). Institutions and the behavior they generate thus constitute an equilibrium: institutions mirror the actions of the interacting agents but also constitute the structure influencing each agent’s behavior.

**Defining a Credible Commitment**

Recent theoretical contributions consequently drop the assumption of the government as either benevolent or leviathan (Greif 2006; Acemoglu & Robinson 2006; Bardhan 2005; Bueno de Mesquita et al. 2003). Instead, it is acknowledged that property rights cannot be enforced by coercion alone, and focus has shifted to how coercion is mixed with cooperative assurances in the form of credible commitments. Given this recognition of the commitments underlying secure property rights and the resulting investment incentives, scholars in the field of political economy have increasingly started to pay attention to the mechanisms by which the governments can and do establish such commitments (Acemoglu & Robinson 2006; Frye 2004; Barzel 2002; Barzel 2000; Dixit & Nalebuff 1993). This section explores those mechanisms further, whereafter the final section of the

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79 However, where no outside enforcement is feasible, one way to commit to not cheating is to exchange hostages (Rubin 2005; Williamson 1983). In Puzo’s Godfather for example, before a meeting between rival Mafia families they constrain their own freedom of action by the mechanism of bilateral hostages. But explicitly carrying out such a code of conduct is for various reasons not likely to work well in the relationship between the state and its subjects. Other studies emphasize the importance of trust and social capital for establishing credible commitments, but this dissertation adheres to a political-economy view of institutions that sees trust and cooperative norms predominantly as effects of governmental institutions and their actions (see Rothstein 2005; Keefer & Knack 2005). As will become clear later, the potential mechanisms that can create credibility therefore instead fall into two closely interconnected categories: “…reputational mechanisms and institutional mechanisms.” (Bardhan 2005:55).

80 Weingast for example sees the rule of law as a self-enforcing agreement: “…to survive, the rule of law requires that limits on political officials be self-enforcing” (Weingast 1997:262).
chapter analyzes how the mechanisms work formally in a game-theoretic framework.

Put simply, credible commitment mechanisms fall into the two closely interconnected categories of reputational and institutional mechanisms (Bardhan 2005). This reflects the notion that a commitment can be credible in two ways: either motivationally or imperatively. A commitment is motivationally credible if the actors continue to want to honor the commitment at the time of performance. In this case it is incentive-compatible and hence self-enforcing. A commitment is credible in the imperative sense if the player cannot act otherwise because certain actions are constrained or discretion is disabled – as illustrated in the case of Ulysses and the Sirens (Sheples 1991).

In theory, the first way to credibly commit to secure property rights is for the government to establish a cooperative history of play in the continuous relationship with its citizens. Using the example with the customer and the retailer, an expectation of repeated transactions would deter the customer from failing his promises; the customer might want to trade with the retailer in the future and realizes that if he does not fulfill his promises, the trader will not trade with him again (Acemoglu & Robinson 2006). In our context, the ruler can try to establish a track record of cooperation to affect citizen expectations of future behavior (North 1994).

The second potential way to credibly commit to secure property rights is simply to take the decision-making power out of the hands of the potential violator. By making breach of agreement virtually impossible, or at least very costly, the credibility of the agreement rises. In order to make his promises more credible, the ruler can in this way choose to institutionalize joint decision-making or put constraints on his own behavior in other ways (Bardhan 2005; Firmin-Sellers 1996; North & Weingast 1989; Root 1989). Indirect controls over government behavior and systems of delegation or separation of powers are ways to create a coordination device for the citizens and to take decision-making power out of the hands of the government. Such mechanisms in turn help the government commit more credibly to protection rather than predation. Recall the basic commitment problem depicted above: the ruler needs a device that can enable him to commit ex ante (before the citizens invest) to be honest ex post (after the citizens have invested and the ruler is confronted with the choice to predate or protect). Formal institutions are excellent in this regard as they are durable and affect the future allocation of power: the promise in time to is simply made credible by putting constraints on the ruler’s ability to act opportunistically in time t+1 (Acemoglu & Robinson 2006).

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81 Using a less literary example about the customer and the trader introduced above, Acemoglu and Robinson describe the imperative commitment as follows: “To remove potential commitment problems, we need to remove the freedom of the customer to decide whether to make a payment tomorrow or not without facing any repercussions if he reneges on his promises” (Acemoglu & Robinson 2006:134).
In conclusion, the government can establish a credible commitment in two ways: by setting a precedent of cooperative behavior, and by being constrained by a set of rules that remove the opportunity to violate the agreement. Also recall the discussion on self-enforcement above: belief in the credibility of a commitment is in fact sustained only by anticipation of the incentive structure facing the other party.\footnote{The logic behind the two types of mechanisms in focus here is that they create a future cost for the agent violating the agreement between two parties. This cost must in turn be based on the agent’s own preferences and can in effect include everything from feelings of internal guilt to material standard (Dixit & Skeath 2004).}

\textit{History of Play}

The first proposed solution to the commitment problem inherent in property rights systems is thus to establish a trustworthy reputation. As Ostrom, and others, have shown: having a cooperative history of play makes other people trust you, now and in the future (see Axelrod 1984; Ostrom 1990; Rothstein 2005). Establishing this kind of history can solve so-called social traps or sub-optimal equilibria, and generally stimulates productive activities and investments. If the relationship is continuous, as between the government and its subjects, then the anticipation of future interactions supposedly makes reputation an efficient commitment device. In theory, because the ruler has utility to gain from a continuous relationship, his commitment \textit{ex ante} not to behave opportunistically \textit{ex post} can under such conditions be perceived as credible by the citizens. In addition, the effectiveness of this solution naturally increases as the value of future interactions and a continuous relationship becomes higher (Greif 2005; Keefer & Knack 2005; Barzel 2002).

The importance of having a trustworthy reputation has for a long time been acknowledged as an important reason why rulers do not constantly fail their promises. For the sake of their own future revenue maximization, rulers have a clear-cut interest in establishing a cooperative history of play that induces individuals to produce and invest. In our case, forced removal or confiscation of some people’s assets signals to other citizens that their wealth too is at risk, and for this reason they do not engage in productive activities. Yet, both the ruler and the ruled are expected to benefit in several ways from the accumulation of cooperative experiences. As implied, the ruler will agree to embark on a cooperative history of play because doing so will allow him to gain a larger share of whatever income the subjects may generate (Barzel 2002). The ruler simply wants to stimulate productive activities in society and a once-and-for-all confiscation is logically not consistent with maximization over time (North 1994; North 1990).\footnote{By this logic: “Any incentive an autocrat has to respect [citizens’] rights comes from his interest in future tax collections and national income and increases with his planning horizon” (Clague et al. 1996:243). The expectation that economic agents will shift their activities in a way that affects the ruler’s...} Due to the apparent long-term benefits at stake, the
government’s ambition to keep its reputation of non-confiscation is thus a self-enforcing mechanism.

However, as we will see below, reputation and a cooperative history of play might not be enough. The cooperative outcome depends on a benign expectation of infinitely repeated interactions and is seriously challenged when the future is heavily discounted. We therefore turn to the second device that potentially can lend credibility to the government’s promise.

_Tying the Grabbing Hand_

Most scholars agree that the basic outlines of the reputational commitment solution deserve merit. Yet, recall that the credibility of a reputation-based commitment increases as the value of future interactions becomes higher. This solution might therefore only work if behavior is forward-looking enough, and if the rents generated by future interactions are higher than the costs incurred by protecting citizen property rights.

The stationary bandit’s willingness to establish a trustworthy reputation in order to gain more long-term revenue is thus a motivationally credible commitment according to the terminology above. However, the model does not solve the essential problem that nobody lives forever. Since succession is unclear under bandit rule, when citizens believe that the stationary bandit is threatened or fear that his reign will end, they may anticipate that he will take on the traits of a roving bandit, trying to confiscate as much as possible as fast as possible. In fact, such expectations will probably start to form already at an early stage, and the government therefore needs a credible commitment mechanism able to convince the citizens that it has no intention to turn predatory (Haber, Razo, & Noel 2004). Such a mechanism is provided by formal institutions of power-sharing that act as a coordination device for the citizens and ties the grabbing hand (Acemoglu & Robinson 2006).

But why would a government agree on restricting its power? Majoritarian or delegated rule would typically involve redistribution away from the rulers, which is certainly a cutback in their privileged position. Extending his story about roving and stationary bandits, Olson argues that it is in fact long-term revenue maximization that once again causes a shift in governance (Olson 2000; Olson 1993; McGuire & Olson 1996). The very same self-interest that gives the roving bandit incentives to settle – the desire to maximize his extraction from society – also gives him the incentive to create a coordination device for the citizens by devolving powers to lower levels once settled. If the government is not constrained by some kind of formal institutions, then citizens anticipate confiscatory behavior and refrain

income thus acts as a constraint for the ruler even though there is in fact no real countervailing coercive power (Greif 2006).
CHAPTER 3

from investments – which is bad for government revenue collection. Majoritarian rule on the other hand implies that the majority in power not only controls the fiscal revenue but also the market income. A majority therefore has a more encompassing interest in the welfare of the society, which in the long run benefits those in power (McGuire & Olson 1996). Being a leader in a society where autonomy is given to asset holders who get enhanced investment incentives because the government is constrained and cannot easily confiscate their wealth is thus potentially even more revenue bringing than being a stationary bandit.84

The core argument here is thus that since institutions are durable, they have the ability to simultaneously extend the ruler’s time horizon and make the citizens change their anticipation of confiscatory behavior. As it is in the ruler’s own interest, limits on the ability to violate citizen property rights thus evolve endogenously and are self-enforcing.85 Protection of property rights has in fact been identified as a rationale for gradual expansion of suffrage and delegation of power to lower-level authorities. The promises of an autocratic stationary bandit are not completely credible since there are no formal constraints on the ruling power (Olson 2000). Yet, the creation of some form of local level decision-making structure and collective action mechanism entails such a constraint, changing citizen expectations of the government’s future behavior and thus promoting investments crucial for society’s well-being and revenue production – of long-term interest also for the government. Hence, a dictator interested in increasing his own wealth has strong incentives to enter into self-enforcing agreements that make him committed not to confiscate his subjects’ wealth. He will therefore help the citizens form a collective action mechanism that gives them the ability to constrain his own actions. He thus gives up some of his freedom in order to gain the trust of his people and part of their

84 In addition, “[Representative bodies] enable him to take actions with lower risk of costly retaliation” (Greif 2005:760). Acemoglu and Robinson also emphasize the risk of costly retaliation when they explain the move toward extended suffrage with the threat of revolution. In their reasoning, when the threat of being overthrown reaches a certain threshold, the ruler decides that giving up some of his powers is the only way for him to safeguard a continued revenue flow. This would thus explain the remaining question of why some leaders choose to tie their own grabbing hand and others do not (Acemoglu & Robinson 2006).

85 Of course, this highlights the question of why such equilibria emerge in some countries and not in others, i.e., why some rulers choose to engage in the potentially lucrative relationship. Or in other words: “The importance of good government for growth thus appears to be a well-established proposition. This proposition raises an obvious question: How did some countries come to have good governments and others did not?” (La Porta et al. 1999). Acemoglu and Robinson (2006) stress the revolutionary threat, and also the creation of winners and losers, while Englebert (2000) emphasizes the importance of historical legitimacy. Ultimately, most suggested solutions hit ground on the fact that the ruler’s discount rate is of crucial importance. If having a high discount rate, it may not be rational for the leader to protect property rights. True, secure property rights may fatten the cow the leader has the power to milk, but if uncertain of being the one to reap the future benefits he might choose not to alter the current arrangement. Institutional change produces winners and losers and if afraid of coming out on the losing end, incumbents may block reforms although they would benefit from them in the long run (Bardhan 2005).
produce (Acemoglu & Robinson 2006; Goldsmith 2004; Greif 2005; Barzel 2000).

Giving the broader population the rights to vote or helping them create some other coordination device is in this way an effective instrument for securing future resources since extending suffrage and devolving power entail a credible commitment (Fleck & Hanssen 2006; Lizzeri & Persico 2004). Instead of giving up power as a result of actual use of violence by the citizens, the ruler in this way embark on power devolution since it provides better investment incentives for the citizens and increases the ruler’s revenue collection (Acemoglu & Robinson 2006). Hence, in order to avoid inefficient clientelism and patronage which absorbs public resources at the expense of welfare-enhancing investments, public service delivery, and economic development, it is logical for the ruler to agree on imposing majoritarian rule or create some form of coordination mechanism. Since it ensures a transfer of decision-making powers and acts as a coordination device; devolution of land management responsibility is in our case suggested to be of crucial importance for tying the grabbing hand, and thereby contributing to making property rights to land secure.

Complementarities

There might also be a number of complementarities between the two commitment-solutions. For example, the reputational solution alone might not solve the commitment problem inherent in the relationship between citizens and the ruler. In fact, since the ruler does not live forever, time will potentially seriously challenge the credibility of his commitment as citizens will anticpate confiscatory behavior as soon as they suspect that his reign is coming to an end. In this line of reasoning, the motivational credibility consequently needs to be complemented with an imperative ditto. Hence, some argue that if the commitment is to be truly credible, the establishment of a cooperative track-record needs to be complemented by restrictions on government power and the creation of a coordination mechanism among the citizens. Such institutional arrangements “...can improve the efficacy of the reputation mechanism by acting as a constraint in precisely those

86 Since commitment problems arise when political power is not held in the hands of the beneficiaries of the promised policies, the devolution of decision-making would thus be a way to solve the commitment problem (Bardhan 2005). Or in the words of Greif: “It has been suggested that this dilemma can be resolved by political institutions limiting rulers’ power: limiting their prerogatives and placing political decision-making in the hands of asset holders” (Greif 2005:747). He continues: “…property rights are even more secure when delegation is done in the context of giving asset holders autonomy. ... self-governance entails having bodies of collective decision-making” (Greif 2005:756). Ironically, constraining the actions of the state may thus reinforce state capacity to protect property rights (Firmin-Sellers 1995; see also Frye 2004; Barzel 2000).

87 North and Weingast provide a similar account of how in 17th century England the parliament helped the Crown commit to its fiscal policies by constraining its freedom of action. By placing power in the hands of market actors represented in the parliament, the predatory threat was downplayed and the security of property rights was enhanced – as was the Crown’s revenue base (North & Weingast 1989).
circumstances where reputation alone is insufficient to prevent reneging” (North & Weingast 1989:808). Lastly, for a reputation to be communicated to a broader segment of society some kind of institutional arrangement may also be necessary (Greif 2006; Greif, Milgrom, & Weingast 1994). Similarly, effective institutional solutions to commitment problems might require reputational underpinnings. If the rules of the game are to be abided by, then there have to be some reputational costs for the leader to change the rules at his own discretion. Institutional arrangements are thus reinforced rather than replaced, by reputational mechanisms, and vice versa (Bardhan 2005).

**THE MODEL**

The possible complementarities and endogenous motivation accounted for above raise the question of how the theoretical reasoning works formally in a game-theoretic framework. Game theory is a theory of incentives. It is also referred to as the science of strategic thinking (Dixit & Nalebuff 1993). Game theory assumes rational actors acting strategically: a rational actor is able to calculate costs and benefits in his head and is supposed to choose the line of action most consistent with his preferences. A now well-established notion in social science is, however, that agents do not act in a vacuum: almost everything from everyday decisions to questions of nuclear disarmament in fact depends on how various actors expect others to behave. To act strategically thus means that your own actions depend on what you expect others to do. Optimal behavior is in this way derived from expectations of how others will behave, and focusing on the interaction between various actors, a game-theoretic framework can thus be helpful in analyzing how actions of individuals are endogenously motivated. In short, no actor involved in a strategic interaction can choose an optimal line of action without considering the strategies open for other parties. Each individual is in a game-theoretic analysis assumed to anticipate the behavior of other actors, and this anticipation in turn motivates him to follow the line of action expected of him, i.e., given the actual and expected actions of all other players, each agent thus agrees with the equilibrium behavior (see for example Dixit & Skeath 2004; Morrow 1995).

There are numerous applications of game-theoretic analysis and the purpose here is not to outline all the possible techniques and different kinds of games. Rather, the use of game theory is simply a way to illustrate and analyze the viability of the theoretical propositions above. How come credible commitments are so important for making property rights secure? And are the proposed commitment solutions consistent with the outcomes produced in game-theoretic analysis assuming rational actors acting strategically?
To start with, the general basic commitment problem introduced above is analyzed as a game between the government and the citizens. The actors move sequentially and can choose from either a cooperative or a non-cooperative line of action. This first application thus serves to analyze the theoretical proposition that credible commitments are important for making property rights secure. Thereafter, the game will be extended to include the two potential commitment mechanisms: history of play and tying the grabbing hand. How does the introduction of these mechanisms alter the game played between citizens and the government, and what can be said about their respective efficiency in producing positive outcomes, i.e., in securing property rights and stimulating investments? The analysis is kept fairly non-technical and simple since more sophisticated mathematical techniques do not necessarily provide more valid conclusions.88

To reiterate, credible commitments are suggested to be of crucial importance for stimulating secure land tenure and increased water access levels. Expressing this formally, the commitment problem can easily be depicted as a game between two rational actors. More specifically, the game developed here is a non-technical variant of a one-sided prisoner’s dilemma which I choose to call the invest-protect game.

In the invest-protect game, the government faces the option of either protecting citizen property rights or predating on them. Citizens in turn choose between investing in productive activities or withdrawing to the informal economy and a subsistence livelihood. The starting point is thus that citizens invest based on a promise from the government not to confiscate all of their produce. The government in turn only gets a payoff if the citizens embark on an investment strategy in the first place. In time $t_0$ the government therefore promises to protect citizen investments since they provide revenue for the government in time $t_{+1}$. However, in order for the citizens to really undertake the investments, they have to be assured that the government will really act on its promise. Yet, given the incentives facing the government in time $t_{+1}$ where they get a higher payoff from predating than from protecting, it is not rational for the citizens to expect that the government will really protect their property rights. Rational anticipation of

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88 In contrast, it might be fair to say that game theory in some respect has fallen prey to a level of mathematical jargon that tries to capture too many elements of reality whereas the original purpose rather was to provide straightforward but powerful tools that could abstract from the admittedly complex reality facing societal actors. The ever more sophisticated models also risk incorporating a strong confirmation bias, i.e., the models are in some cases designed to illustrate a certain phenomena, but even though they are more or less constructed, the conclusion generated is often taken as a sign of the model’s applicability to real world problems. Yet designing a model proving a certain outcome might explain very little. Just like the other methodological approaches applied in this dissertation, a game-theoretic analysis has a lot to gain from being complemented by other techniques. Here I aim at providing a comprehensive test of the credible commitment argument’s viability, and a game-theoretic approach is one way to do this. But this theoretical and non-empirical analysis is also balanced by a small(er)-n comparative approach and a large-n empirical investigation developed in the subsequent chapters.
the government’s strategic incentive to breach the agreement once citizens have made a first cooperative move thus makes citizens refrain from investments altogether.

The analysis of the relationship between the ruler and its citizens is a straightforward application of a model developed in Greif’s seminal work *Institutions and the Path to the Modern Economy* (Greif 2006). Yet, while Greif’s account deals with the evolution of medieval trade, I here focus explicitly on how credible commitments of governments affect property rights security and the subsequent investment incentives facing regular citizens. In order to demonstrate this logic formally, I develop a simple invest-protect model with the following familiar characteristics: we have two actors, they move sequentially and their environment has an inter-temporal dimension. Citizens move first and the government follows. The payoffs and the structure of the game are given in the tree-diagram below.

**Figure 3.1.** The invest-protect game in a tree-diagram

![Tree-diagram](image)

**Note:** This figure depicts the invest-protect game which is a variant of a one-sided prisoner’s dilemma where the citizens and the government act sequentially. If the citizens choose the subsistence path, they get a payoff of 1 while the government gets nothing. If the citizens choose to invest, the government can choose either protect or predate. If the government chooses protect, both players get a payoff of 2 while if the government chooses the predate option, citizens get nothing while the government gets a payoff of 4. If the citizens anticipate that the government will choose predate, they choose to engage in subsistence activities at the first branching point. Yet, while both actors would be better off in an invest-protect equilibrium, this outcome depends on the government’s credible commitment to the protect option.

To start with, the citizens have the choice whether to invest in long-term productive activities or not. If they choose not to, they get a payoff from their subsistence activities. If they choose the invest strategy, however, they
have the prospect of doubling their payoff. However, the realization of this higher payoff depends on the government’s choice of action. Once given the choice at the second branching point, the government can in turn choose either predation or protection. Given the higher payoff from predation, this is the rational choice. Yet the ruler would obviously prefer the citizens to undertake investments in time to and has therefore promised to choose a protect strategy in time t+1. Once t+1 arrives, however, the ruler gains a higher utility from choosing predation rather than protection. But looking forward and reasoning backwards makes the citizens anticipate this line of action, and they therefore choose subsistence activities in the first place. An invest-protect strategy would of course have produced higher payoffs for both actors than the outcome produced now, but given the structure of the game, the optimal strategy for each player at each branching point is to deviate from the cooperative line of action.

With backward induction we can see that the non-cooperative outcome is in fact a Nash equilibrium. Nash equilibria are by definition self-enforcing and as is clear from the game above, non-cooperation is here self-enforcing as it corresponds to each player’s best response. The ruler gets a higher payoff from predating. The citizens rationally anticipate predation and choose the subsistence path, since this in turn is their best response. Logically, if citizens expect the ruler to follow the behavior expected of him, they will themselves find their best response to be to follow the behavior expected of them. Hence, the subsistence-predate outcome is a Nash equilibrium. This is perhaps more clearly seen in the matrix below:

**Figure 3.2** The invest-protect game in matrix form.

<table>
<thead>
<tr>
<th></th>
<th>Protect</th>
<th>Predate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Citizens</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invest</td>
<td>2, 2</td>
<td>0, 4</td>
</tr>
<tr>
<td>Subsistence</td>
<td>1, 0</td>
<td>1, 0</td>
</tr>
</tbody>
</table>

*Note: This figure depicts the payoffs in the invest-protect game in matrix form. The subsistence-predate option is a Nash equilibrium and marked in bold.*

We do not even have to assume these particular payoffs to see the dominant strategy. The logic illustrated is simply that if the government chooses a predate strategy, then the citizens get a loser’s payoff lower than the status quo while the government in turn gets a winner’s payoff larger than the one from the cooperative strategy. Given this game structure it is clear that the reason why the Nash equilibrium is pareto inefficient is that the citizens
rationally anticipate the government’s predatory behavior. Since the government cannot credibly commit not to choose the predate option, citizens look forward and reason backwards to predict that the ruler has no incentive to follow through. The uncooperative outcome is an equilibrium, and to give credibility to a line of action off this path, the government must find a way to prevent reneging once faced with the more lucrative option of turning predatory. In theory, a promise to protect citizen property rights is not enough to stimulate investment if such an assurance is purely oral. The commitment must instead be made credible, i.e., the citizens must anticipate that it is in the ruler’s interest to follow through (see Dixit & Skeath 2004; Dixit & Nalebuff 1993).

This game corresponds to a hold-up problem where a cooperative and mutually beneficial outcome is held back by the anticipation of the second player’s opportunistic action. Yet, just like in the hold-up game, the uncooperative equilibrium is produced under the assumption that the game is played only once, i.e., it is played in a static world. In a dynamic world, however, there is not only a today but also a tomorrow, and if the game is played repeatedly, the recognition of the fact that future benefits from citizen investment choices depend on government actions today may therefore suffice to induce the government to choose a protect strategy.\textsuperscript{89}

As outlined in previous sections, a trustworthy reputation is, in theory, one of the mechanisms through which the ruler can establish a credible commitment to protection rather than predation. Let us see how this mechanism works formally. When modeling reputation, the core argument is that: “…the long arm of the future provides incentives to honor the loan agreement today so as to retain the opportunity for funds tomorrow” (North & Weingast 1989:807). Quite intuitively, the relationship between citizens and rulers typically consists of more than one-shot interactions. While the ruler faces the temptation to predate rather than protect in every single game, in a continuous relationship he also faces the risk of not getting any payoff at all in future games. Given the repeated game setting, the ruler now rationally anticipates that citizens will withdraw into subsistence activities forever if he fails his protection promise. He therefore gets an incentive to honor his agreements. Recall that the citizen threat to choose the subsistence path is credible since this outcome represents a Nash equilibrium and thus is self-enforcing. The citizens in turn know that the ruler’s incentive structure now is different than in a one-shot game and they can therefore be willing to test the ruler’s commitment by

\textsuperscript{89} The game and the sub-optimal equilibrium can also be conceptualized as a war of attrition where two players engage in a waiting game, and where each player delays the transaction until the other player gives in and agrees to transact according to his opponent’s wishes. While waiting, however, both players suffer increasing losses and the capacity to win a war of attrition is thus associated with the ability to suffer longer for the sake of victory. See (Galaz 2005; Galaz 2004) for a discussion of the associated “break-down values”.

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embarking on an invest strategy. The strategy adopted by the citizens is now to equate with a trigger strategy: the citizens can trigger cooperative behavior by a credible threat of costly punishment, i.e., withdrawal into subsistence activities forever – implying no future tax revenues for the government. While it is true that facing a breach of agreement would render the citizens zero payoff, they also know that in an infinitely repeated game setting, the ruler takes their credible threat of employing a subsistence strategy seriously. And in light of this threat of a grim punishment, a cooperative line of action can now be self-enforcing. Simply put, when played repeatedly the invest-protect game has more than one equilibrium. In fact, since no player can gain from deviating from the cooperative strategy and then return to the cooperative strategy (recall that the threat of the citizens to withdraw into subsistence activities is credible), in this case it is easy to validate that in infinitely repeated games, the invest-protect outcome is a so-called subgame-perfect equilibrium. Thus, the suggestion is that if the government values the gains from future trade higher than immediate predation, a reputation mechanism can mitigate the commitment problem (Greif 2006).

According to the classic Folk Theorem, repeated games can produce cooperative subgame equilibria if the future is not discounted too heavily.\textsuperscript{90} Repeated interactions and a cooperative history of play can produce a mutually beneficial outcome (and this can be a subgame-perfect equilibrium and can thus be self-enforcing). However, in order for this outcome to occur, the game has to be repeated infinitely or at least for an indefinite period of time. Yet, as soon as any of the actors fear that the game is coming to an end, the subgame-perfect equilibrium will be broken and an uncooperative equilibrium takes its place.

To see the limits of the reputation mechanism more formally, I translate Greif’s story about medieval trade to the relationship between citizens and the government (Greif 2006:110ff.; Greif 2005). In this setting we have $x$ citizens; if they choose the invest strategy the gross value of production is $f(x)$. As we live in a world of scarcity, investments in turn come with a cost for the citizens, $k > 0$. The cost for the government to protect the citizen property rights is also positive, $\epsilon > 0$. Taken together, the net value of the invest-protect strategy is consequently $f(x)(1 - \epsilon - k)$. Quite naturally, this is presumed to be a lucrative arrangement so $\epsilon + k < 1$. In

\textsuperscript{90} Given the payoffs in our invest-protect game above, if the government deviates from the cooperative path it is awarded a payoff of 4 instead of 2, but such deviation can be expensive if the discount rate $r$ is not too high. If predation is to be costly for the ruler, then the gain he could make from a one-shot confiscation should not be higher than the future loss in each period, i.e., $r(W_2 - C_2) \leq C_2$ where $W_2$ is the government’s payoff from predating and $C_2$ the payoff from the protect strategy. Clear from the tree diagram above, $W_2 > C_2$. With the payoffs above, we have: $r(4 - 2) \leq 2$. Consistently, the one-time gain $(W_2 - C_2)$ should not be higher than the capitalized value $C_2/r$ of the following period’s loss (Dixit 2004:15-17).
addition, the function \( f \) is assumed to be nonnegative and differentiable, \( f(0) = 0 \). It also has a maximum \( x^* > 0 \), which is to equate with the efficient volume of investment. Moving on, for every investment the ruler gets tax revenue of \( \tau \geq \alpha \). Total revenue is thus \( \tau f(x) \) and net of the cost of protection we end up with \( f(x)(\tau - \alpha) \). The ruler can, however, choose not to protect a fraction \( \lambda \) of the citizens whereby he saves \( \lambda \alpha f(x) \), his payoff then is

\[
f(x)(\tau - \alpha(1 - \lambda)).
\]

Citizens who are still protected earn profits net of costs and taxes of \( (1 - \tau - k) f(x) / \infty \). Citizens who are preyed upon pay tax and incur costs but receive no revenue: \( - (\tau + k) f(x) / \infty \). The game is repeated period after period and the player payoffs are discounted with the discount factor \( \delta \). Thus, the ruler’s payoff when the investment level is \( x \) in time \( t \) is given by the formula:

\[
\sum_{t=0}^{\infty} \delta^t f(x)(\tau - \alpha(1 - \lambda)).
\]

Logically, individual investors in a similar manner also earn the discounted sum of their periodic payoffs.

Consider now a first game where there is no power-sharing mechanism or coordination device for the citizens, i.e., the commitment’s credibility depends only on a bilateral reputation mechanism; the citizens know only their own past history of play and how they individually have been treated, and they have no way of collectively constraining the ruler’s actions. The Folk Theorem above predicted that when the citizens can pose a credible threat of withdrawing to subsistence activities, the ruler fears loss of future revenue and sticks with the protect strategy. However, this conclusion builds on the assumption that citizens are coordinated and have some form of mechanism to overcome the collective action dilemma involved in posing such a credible threat. In contrast, let us see what happens when no such coordination device exists. The ruler can now choose to predate on a fraction \( \lambda \) of the citizen property rights. The payoff thus becomes \( f(x^*)(\tau - \alpha [1 - \lambda]) \). Still, \( 1 - \lambda \) citizens choose the invest strategy and the ruler’s payoff for protecting the rights of this remaining fraction is at least \( y(\tau - \alpha f(x(1 - \lambda))) \) when \( y = \delta / (1 - \delta) \). Taken together, if deciding to predate on a fraction \( \lambda \) of the citizens in the first period but then adhering to the suggested equilibrium, the payoff is at least:

\[
f(x)(\tau - \alpha(1 - \lambda)) + y(\tau - \alpha f(x(1 - \lambda))).
\]

Following the logic from Greif’s model, this expression coincides with the payoff when \( \lambda = 0 \). The derivate of the above expression with respect to \( \lambda \) when \( \lambda = 0 \) and \( x = x^* \) shows that the ruler has an incentive to deviate from the cooperative line of action:
\[ d(x^*) - y(\tau - \delta)x^* f'(x^*) = d(x^*) > 0, \]

because \( f'(x^*) = 0 \). In other words, if deviating from the protect strategy, the ruler loses nothing in terms of future rewards but saves the cost of protecting in the present period. The conclusion is thus that without a coordination mechanism among the citizens, there will be no equilibrium supporting a protect strategy \( \lambda_n = 0 \) at the efficient level of investment \( x_i = x^* \) (regardless of the levels of \( \epsilon, \tau, k, \) or \( \delta \)).

This account makes clear that when a bilateral reputation mechanism is the only commitment device in place, the invest-protect strategy is not a self-enforcing equilibrium at the efficient investment level \( x^* \). As the model spells out, at this investment level, when there is no coordination mechanism in place and the government consequently faces sanctions only from the citizens subject to predation, every marginal citizen/investor has zero net value for the government. In this setting, predation consequently does not result in any significant future losses but saves the ruler the cost of protecting the fraction that is being preyed upon. Since citizens are uncoordinated, the fear of losing future revenues is simply not high enough to make the government stick exclusively to the protect strategy. The citizen threat of withdrawing into subsistence activities is thus not credible given the absence of any devolved decision-making structure, and the invest-protect strategy is consequently not self-enforcing at the efficient level of investment.

Taking the argument further, to support the level of efficient investment, some kind of collective action among citizens is clearly required. Yet, importantly, such collective action has to involve more than only a subset of the citizens. Consider for example a situation where a coordination mechanism actually exists, but with limited reach. The previous assumption that no citizen has information on how the ruler has treated others is perhaps far-fetched. However, even if a coordination mechanism implied that whenever a set \( C \) of citizens are preyed upon there is a set of citizens \( \hat{C} \supseteq C \) who learn about the event, it would not suffice to render an efficient investment level feasible. To see this, assume a constant \( K(1 \leq K < \infty) \) that makes proportionately few citizens learn about the breach of agreement: if the number of investors preyed upon is \( \mu(C) \), then the number of citizens who actually get the information, \( \mu(\hat{C}) \), is no more than \( K \mu(C) \). Still, the predation on a small number of citizens is now communicated to a much larger group than those subject to the trespass. However, the following expression proves that although predation leads to withdrawal by a group many times larger than the group that was preyed upon, it would not suffice to support an efficient investment level:

\[ d(x^*) - y(K(\tau - \delta)x^* f'(x^*) = d(x^*) \geq 0. \]
This is basically the same expression as above but the number of investors withdrawing to subsistence activities is now multiplied by K. However, there is still no Nash equilibrium at the efficient level of trade that supports the invest-protect strategy (regardless of the levels of $\epsilon$, $\tau$, $k$, or $\delta$) where $\lambda_1 \equiv 0$ and $\lambda_1 \equiv \lambda^*$.  

Yet in the final game, there is a lower level coordination device in place and all citizens learn about predation. Their threat to withdraw to subsistence activities is now made credible since they can overcome the collective action dilemma. Assume the existence of some form of coordination mechanism implying that if a set of investors C is predated upon, all investors discover the predation and withdraw to subsistence activities with a probability $\theta(C) \geq \mu(C)$. The game is basically identical to the first game above, but all investors now learn about the predation. Now, if $\tau + k \leq 1$ and $\epsilon \leq y(\tau - \delta)$, then the ruler gains less from predating on an investor than what he on average would earn in tax revenue from this investor; the average future tax revenue from each investor is $y(\tau - \delta)f(x^*)$ and the immediate income from predation is less than this and proportional to $c\ell(x^*)$. The logic behind this directly verifiable proof is simply that average profits rather than marginal profits now determine the ruler’s revenue; the ruler now believes that if he breaches the agreement of protecting citizen property rights, he will earn no future revenue. With this anticipation he embarks on a protection strategy – the invest-protect outcome thus becomes a self-enforcing equilibrium (Greif 2006:116f.).

Summing up, given the Folk Theorem above, one might think that the invest-protect strategy could be sustained by a cooperative history of play. And so it can, but only under the assumption that citizens are coordinated and that they all learn about predation when it occurs. While it is true that a credible threat of withdrawing to subsistence activities can make the government fear a loss of future tax revenue, without any lower level decision-making structure each individual citizen is of almost no value to the ruler; as the above analysis demonstrates, without any collective action mechanism, the revenue collected from a marginal investor is smaller than the revenue from predation or the cost of stalled future investments. Without a coordination device, investment can thus not expand to its efficient level. Yet when the ruler chooses to complement the reputation mechanism by some form of institutionalized cooperation among the citizens, then the citizen threat of withdrawal becomes credible, which in turn deters the ruler from violating the property rights of any citizen.

In conclusion, this formally demonstrates the possibility of solving the commitment problem with a reputation mechanism. What also comes through strongly is that such a reputation mechanism in many cases is not enough; at the efficient level of investment the marginal value of each individual falls to zero and the government therefore sets out to violate the
property rights of some citizens. Hence, for the invest-protect outcome to be self-enforcing, there also needs to be some form of lower level decision-making structure among citizens. The conclusion here, consistent with Greif’s account, thus emphasizes the importance of some form of institutionalized commitment rather than mere promises (Greif 2006). The commitment problem is in this analysis solved by the introduction of a coordination mechanism. In fact, protection of property rights can be argued to be a private good and the possibility for the ruler to discriminate among investors demands collective action from the citizens. Yet, without an institution that can make the citizen threat of withdrawing into subsistence activities credible, the invest-protect outcome is clearly not self-enforcing. However, when such an institution does exist, then the government fears being fired as a protector, and the trade-off between short-term gains and lifelong revenues changes to support a cooperative outcome. Thus, in line with the theoretical suggestion, in order to reach the efficient level of investment, the ruler can encourage the establishment of lower-level decision-making structures that act as a coordination device among citizens, since this is how efficient investments and the ruler’s income are maximized.91

This analysis has demonstrated the commitment problem and the two commitment mechanisms formally. Although the analysis is fairly non-technical and simplified, the conclusions generated seem to provide strong support to the theoretical proposition that commitments are of crucial importance for encouraging investments. The reputation mechanism is to some degree a workable solution, but in absence of an institutionalized commitment, the citizen investment choice is vulnerable to government predation. Yet, this is what theory and formal modeling predicts. Let us now continue by defining the operational indicators of credible commitments more sharply, and then turn to the empirical realities.

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91 As in other cases: “The sovereign’s self-interest leads him to respect limits on his behavior; that is, these limits are self-enforcing” (Weingast 1997:246).
COMPARING COMMITMENTS

THE COMPARATIVE ADVANTAGE

Given the theoretical argument presented in previous chapters, the ambition in the empirical investigation is to compare water coverage levels across countries and investigate whether the variation in credible commitments to secure citizen property rights can account for the variation in outcomes. This chapter outlines how this ambition is to be fulfilled.

The starting point for the choice of methodological approach is that previous studies of the effects of property rights predominantly have been occupied with either rather simplified quantitative assessments undertaken by economists (mostly asserting that property rights are important rather than explaining why they are secure in one country but not in another), or in-depth anthropological studies (not too interested in generalizations). However, systematic comparative investigations are by and large missing. Moreover, the argument here is that when conducting such a comparative inquiry, different methods can be chosen to complement and corroborate each other. First, I therefore undertake a comparative investigation of the relationship between credible commitments and water coverage in a small-n sample consisting of twelve sub-Saharan African countries with varying water coverage levels (see the below section on case selection). Thereafter follows a statistical test of the credible commitment argument’s explanatory power in a larger sample including all sub-Saharan African countries.92

Clearly, there is currently a strong move in comparative politics backing claims for such methodological integration, and there are also some substantial reasons for not engaging in a single-methodological exercise (see George & Bennet 2005; Lieberman 2005; Brady & Collier 2004; Landman 2003). More precisely, no matter how you go about comparing countries, there is a risk of having to confront some of the problems associated with comparative approaches, and for that reason I argue that it is often worthwhile to employ various forms of methodological crossovers.93

However, the decision to mix methods is not due to a belief that more is

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92 For which data is available.  
93 Such a move is, however, not entirely new and it has been argued that mixed methods were in fact more common in the earlier days of social science research. Even so, the mixed method approach is now experiencing something of a revival (Lin & Lofitis 2005).
necessarily better. On the contrary, there is no doubt that mixing methods for its own sake may lead to unfocused research. However, the choice to combine methodologies in this dissertation is founded on the notion that the particular research question posed here would benefit from being measured from more than one vantage point. This, I argue, should strengthen our belief that the results are indeed valid and not due to the particular method used.

Turning briefly to the potential problems encountered in comparative research, we first have the problem of data availability; relevant data for the issues of concern is in many cases simply lacking. Another problem is the so-called degrees of freedom problem implying that there are too many variables but too few countries in the research design. Quite naturally, this is frequently held forward as a problem for small-n studies. A problem perhaps more severe for large-n approaches is that of using concepts and indicators that do not travel well between different contexts. This is known as the problem of establishing equivalence and concerns whether the same concept means the same thing in different contexts, and, perhaps even more importantly, whether our measures really capture what we are interested in measuring. A final challenge concerns developing a model that can represent real world developments, i.e., the problem of research design and model specification (Landman 2003). Given these potential problems, the argument here is that the conclusions generated from each particular approach would be more robust if they were cross-checked.

In the next section I discuss the strength and weaknesses of the different methodological approaches further and present the indicators and measures available for testing this study’s overall argument; that cross-country variation in credible commitments account for cross-country variation in water coverage.

SELECTING INDICATORS

This section gives an account of how the theoretical argument developed in Chapter 3 can be assessed in a comparative framework. As spelled out there, the creation of a credible commitment can theoretically be divided into two parts: (1) the establishment of a cooperative history of play where the

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94 This corresponds to the practice of triangulation – broadly defined by Denzin as “...the combination of methodologies in the study of the same phenomenon” (Denzin 1978:291). The metaphor of triangulation in turn rests on navigation and geometry where multiple viewpoints are used in order to gain greater accuracy. The different methods are thus chosen to complement each other in a form of supplementary validation (Lin & Lofitis 2005; Lieberman 2005; see also Ragin 1987).

95 For sure, there is no guarantee that the potential weaknesses of one method necessarily are compensated for by the strengths of another, but given the research question under scrutiny in this dissertation I find it likely that there are observable implications of the central argument that could be best explored through additional data, i.e., a combination of quantitative and qualitative indicators as outlined in the following section.
resulting trustworthy reputation works as a commitment by the government not to violate citizen property rights, and (2) tying the grabbing hand, i.e., creating a coordination device and putting constraints on the government’s ability to violate citizen property rights. In the sections below, I first develop qualitative indicators aimed at representing history of play and tying the grabbing hand. Secondly, I discuss the quantitative indicators available for such an investigation.

**Qualitative Indicators**

Let us start with the indicators used in the small-

Let us start with the indicators used in the small-n comparison. As argued in the next section, the measures accounted for in the large-n design might have some problems with their representation of the theoretical concepts of interest in this dissertation. Yet, here I have the opportunity to go beyond the off-the-shelf indicators and to define the measures more sharply. Consider for example the concept of property rights: the current bundle of rights ascribed to this concept includes everything from shack-dwellers protection against eviction to capital market regulations and intellectual property rights – aspects clearly of interest for different types of societal actors (Bardhan 2005; Knack 2003). When measuring security of property rights in cross-country regressions, we are in some cases therefore unlikely to capture (m)any of the aspects we really are interested in. Most of the indicators are perhaps more likely to represent the state of affairs encountered by foreign large-scale investors than conditions experienced by an urban slum-dweller or a rural smallholder.  

Hence, concepts like secure property rights clearly need to be unbundled and that is what a small-n study can offer, allowing for a more defined and intensive investigation while avoiding the conceptual stretching necessary for fitting concepts into a regression. A small-n approach is obviously also less handicapped by the lack of quantitative data. For many African countries, relevant quantitative indicators are simply missing and the samples in some cases become too small to satisfy the distributional assumptions of regression analysis. In sum, the various measurement weaknesses of the large-n approach can thus be tackled by a small(er)-n approach that focuses more on identifying and understanding institutions, and on their inherent dynamics, than on predicting them or asserting their influence (Greif 2006; Bardhan 2005).

There are, however, also a number of serious disadvantages with small-n studies – and hence a number of aspects where large-n regressions clearly outperform such approaches. First of all, small-n studies can be said to suffer from less secure inferences. Although the internal validity generally is higher, the external validity is lower. True, the idea behind small-n design is that you control by selecting cases that are similar or dissimilar rather than

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96 Foreign investors are normally the target group of the risk-rating agencies which produce the various quantitative indicators. See the next section.
control by statistical means. But although Mill’s designs can do many things, they do not fully compensate for the problems of making general statements from small samples. Small samples also easily confront problems with the degrees of freedom: in many cases it does not take many independent variables before they outnumber the countries in the research design.

Another serious and related problem is that of selection bias: if the sample is not big enough you risk having a bias in the choice of countries or in what these countries have experienced (King, Keohane, & Verba 1994; see also Brady & Collier 2004; Collier & Mahoney 1996). Taken together, there are objections to small-n designs as well. But then again, just as weaknesses of large-n techniques can be neutralized by a small-n approach can the weaknesses of a small-n study be mitigated by a large-n approach. Hence, the benefits from methodological crossovers are suggested to go both ways.

Measuring History of Play

The reputational mechanism builds on the proposition that a credible commitment can be established if the interacting agents embark on a cooperative track. Consequently, in the land-tenure context, citizen security of tenure and the associated willingness to invest presumably depend on the reputation established by the government’s past and present tenure policies rather than only on legal status. If citizens for example experience or hear about recent forced evictions, they will anticipate that they too will face expropriation soon, and they therefore rationally adapt to these circumstances and hold back investments. The practice of forced evictions is thus suggested to act as a strong disincentive for individuals and communities to invest their scarce resources in immobile goods like water infrastructure, wells, or improved housing that on aggregate would increase the proportion of people with access to drinking water (Payne 2002; Bruce & Migot-Adholla 1994). The tenure track-record is in this way clearly a constituent part of the on-going relationship between the citizens and the government, and defines the general playing field and investment climate. The government decides on legislation and policies that enable or prevent government agencies or other third parties to evict dwellers against their will and without paying compensation or offering relocation. Even if not actively involved in the physical removal of people and neighborhoods, the government in many cases thus indirectly sanctions such activities by failing to provide anti-eviction laws that would prevent arbitrary evictions in general.

Importantly, in order to compare the history of play of different governments, both rules on paper and rules in practice need to be taken into

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97 More precisely, forced evictions are defined as the physical removal of people from the land they occupy – a practice for which the state holds ultimate responsibility.
account. To start with government intentions and practices can be assessed by investigating national policy responses to informal settlements. The responses may in turn vary from repression, forced eviction, and harassment, to tolerance and the adoption of anti-eviction laws (Durand-Lasserve & Royston 2002b; Payne 2002; Fernandes & Varley 1998).

To be more specific, the simplest tenure policy is probably to ignore the informal settlements altogether. If unaided and unregulated, policymakers can hope for the deteriorating conditions in the settlements to deter others from moving there. If this does not happen, then the problem is at least postponed to the future. Second is the policy of eradication. As with the ignore-policy, this may be justified on the grounds that a settlement is illegal, or that the land is required for another more lucrative purpose. Leveling informal settlements with bulldozers is thus another non-cooperative policy option. Finally, there is a more cooperative policy: protection against forced evictions and the adoption of anti-eviction laws, preferably in consultation with the concerned parties (Payne 2004; Payne 2002). If settlers receive some official assurances that their settlements will not be demolished, and if the process is transparent and inclusive, then the commitment to secure citizen rights is made more credible.

In sum, regardless of reason, when it comes to secure land tenure, the practice of forced eviction, and the absence of anti-eviction laws and a consultative process, indicate that the government is not credibly committed to secure citizen property rights. First and foremost, national land or tenure legislation thus provides the framework for if and how evictions are conducted and for assessing in what way citizen property rights are officially recognized. The adoption of national legislation that guarantees security of tenure and regulates the way in which evictions may be carried out can give citizens the security necessary for undertaking investments that improve living conditions in their community. Together with the actual practice on the ground, national legislation is thus the principal way in which governments communicate their cooperative or non-cooperative intentions. Clearly, rules in practice need to be assessed as well, and in addition to formal legal protection, consultation and participatory approaches are generally put forward as key aspects of a government’s commitment to truly secure citizens land rights (Durand-Lasserve & Royston 2002b; Firmin-Sellers 1995).

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98 As some scholars put it: “Anti-eviction laws are a priority. It is now increasingly acknowledged that this must be the earliest priority, as protection from eviction is a prerequisite for any further action regarding tenure upgrading and regularization” (Durand-Lasserve & Royston 2002b:253). Further motivation for the choice of indicators for assessing whether the governments have established a cooperative history of play or not is given by the following quote: “Because national constitutions are generally the highest law of the land, the importance of including the right to housing as well as de jure and de facto protection against forced eviction cannot be overemphasized” (Durand-Lasserve & Royston 2002b:248).

99 Firmin-Sellers for example highlights why consultation is important: “…most importantly, rulers can use their positions to signal an intention to behave cooperatively, establishing a credible commitment to
The concrete proposition here is that it is the absence of arbitrary evictions and the adoption of anti-eviction laws that communicate the government’s trustworthy reputation and act as a credible commitment mechanism that encourages citizens to invest in water infrastructure, wells, their houses, and the local environment. In addition, the tenure reform process should preferably be undertaken in consultation with the dwellers themselves. If no consultation process, anti-eviction laws, or upgrading projects are under way, or if arbitrary evictions prevail, then municipal authorities cannot be said to have established a trustworthy reputation that makes citizen property rights to the land they occupy more secure.

In conclusion, the indicators used for assessing if a credible commitment is put in place is thus the absence of arbitrary evictions and the existence of anti-eviction laws in combination with the existence of a consultation process.

*Measuring How Hard the Grabbing Hand is Tied*

Clear from the model in Chapter 3, the reputational solution may not be enough on its own. For example, when the government’s discount rate is high, it is suggested that for a commitment to be truly credible it is necessary to also provide more formal constraints and institutional arrangements that could hinder reneging (North & Weingast 1989). This argument contends that even a government with a reputation of being trustworthy may later on have incentives to act opportunistically, and in order to truly tie the grabbing hand, the decision-making powers need to be delegated. The violation of citizen property rights cannot be addressed once it has been performed, so the citizens must have a collective action mechanism or coordination device able to protect them *ex ante* (Barzel 2002).

The tying-the-grabbing-hand-component of credible commitments highlights that in many countries, the government is not only an inefficient administrator but also an actual predator of land that by law and/or by custom belongs to ordinary citizens (Okoth-Ogendo 2000). In this perspective, the ruler can only commit credibly and gain more future revenue by “…binding himself irreversibly (such as giving over rights and coercive power to constituents or their representatives)” (North 1994:8). Since it ensures a transfer of decision-making powers and constitutes a coordination device for the citizens, devolution of land management responsibility is suggested to be of crucial importance for tying the grabbing hand.

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abstain from pursuing their immediate self-interest. To this end, the ruler may create formal channels for two-way communication, establishing the ruler's interest in listening to the subjects' preferences and suggestions” (Firmin-Sellers 1995:873).

100 That is, “…just like mutual funds, under despotism past performance is no indication of future returns” (Haber, Razo, & Noel 2004:4).
Given pervasive market or government failures, local community organizations are repeatedly put forward as a solution to various coordination failures. But it is important to recognize that communities can fail too, and decentralization processes can in fact quite easily fall prey to elite interests or local sectarianists (see Véron & Williams 2006; Batterbury & Fernando 2006; Blaikie 2006; Wilder & Romero Lankao 2006; Ribot 2004; Woodehouse 2003). The risk for such community failures – capture of local governing bodies by local elites – has for example been shown to be particularly acute in areas where inequality is high (Bardhan 2005).

Nevertheless, the credible commitment argument derived from theory and from historical examples predicts that under centrally controlled land management, citizens will constantly have some fear of expropriation and will therefore under-invest in land and immobile goods like water infrastructure. The concept and practice of decentralization is thus suggested to be of central importance for tying the grabbing hand. 

Indicators of whether governments have tied their own hands thus consist of the existence of transfer of land management powers to various kinds of elected or representative lower level bodies. Importantly, building on previous empirical and theoretical studies, transfer of power to traditional authorities (chiefs, tribal councils etc) is in this dissertation not taken as an absolute sign of a true devolution of land management powers. On the contrary, given the risks associated with giving exclusive decision-making powers to traditional authorities, the proposition here is instead that a tying of the grabbing hand requires that the relationship between elected organs of governance and traditional structures is clarified (Kyed & Buur 2006; Marongwe 2004). Hence, if truly interested in creating a coordination device for its citizens and making land administration less extractive, it is recommended that responsibilities must be more clearly defined and that the power of traditional authorities must be outweighed, or at least incorporated, by formal institutions (Cousins & Claassens 2004; Marongwe 2004; Lahiff 2001). A better way to introduce power-sharing mechanisms in land management is considered to be the creation of Land Boards. These are decentralized institutions for land management that provide opportunity for taking local conditions, interests, and stakeholders such as traditional groups into account, while at the same time being a more democratic forum than tribal councils etc. (Quan 2000a). Such an institution thus facilitates the incorporation of non-governmental actors such as traditional authorities,

\[\text{COMPARING COMMITMENTS}\]

\[\text{101 Formulated as: “A decentralised system that is community-based, community-operated, community- controlled, and is the result of empowerment to this level of society, will probably produce the most adoptable, cheapest, most owned and therefore most lasting administration and management regime” (Alden Wily 2003). More specifically, decentralization is in the literature often divided into deconcentration or devolution. Deconcentration is in fact more of relocation of state power than actual transference while devolution involves giving lower level bodies a considerable degree of power and autonomy (Crook & Manor 1998; Ribot 2004). In this study, it is therefore devolution that is of primary interest as this is proposed to constitute an effective constraint on the government’s grabbing hand.}\]
and consequently helps the government consolidate its strength and territorial and symbolic reach in order to control both its territory and its people – although the government at the same time transfers decision-making powers to lower levels (Kyed & Buur 2006).

The proposition here is thus that land administration and management should be transferred to lower level bodies in order to tie the grabbing hand; only when land is held locally, and only when the local levels are empowered to manage land, will the government be credibly committed and will the citizens be secure enough to invest in improvements and infrastructure that increase water coverage levels. In addition, a localized land management system is proposed to be more efficient than a centralized ditto, and as power is put in the hands using the land, costs and benefits are closer to the primary users and land is more likely to be used sustainably and efficiently. Devolved land management thus has the potential to significantly stimulate investments in improvements and infrastructure.

In conclusion, it is suggested that decentralization is a means of tying the government’s hands from engaging in different commitment-undermining acts of ex post intervention (Bardhan 2005). The specific credible commitment mechanism investigated here thus consists of devolved land management responsibilities through bodies such as Land Boards or elected local level institutions. Hence, the transfer of decision-making power to lower levels is taken as an indicator of a grabbing hand that is tied harder than what otherwise would have been the case.
The concrete comparison along the qualitative indicators consists of a review of land and tenure legislations of the different countries, as well as a close reading of existing case studies conducted in the region. There is a general lack of comparative land tenure data (Grover, Törhönen, & Palmer 2006; Le Meur 2006), and I therefore rely on studies conducted mainly by the UN-Habitat, the Land Tenure Center in Wisconsin, the Programme for Land and Agrarian Studies in Cape Town, the Center on Housing Rights and Evictions, and the International Institute for Environment and Development in London, but, naturally, also on research published in scientific journals. Few if any of the previously conducted studies have explicitly focused on credible commitments, but there are clearly a number of investigations analyzing tenure policies and practices that together provide sufficient information for me to compare the different countries’ degree of cooperative history of play and tying of the grabbing hand. In addition, previous studies in many cases tend to focus on single cases and thus rarely have the comparative focus outlined here. Yet since they all focus on tenure policies and practices, I see no serious theoretical or methodological obstacles toward putting them into the comparative framework developed here. An analysis founded on those sources, and guided by the above indicators, I argue, gives me the opportunity to
conclude whether the variation in water coverage corresponds to variation in credible commitments. Before turning to this investigation, however, let us explore the quantitative indicators available for such an inquiry.

**Quantitative Indicators**

In the mid-1990s, two articles more or less simultaneously presented data on institutional quality that ever since has been at the center stage of empirical investigations (Knack & Keefer 1995; Mauro 1995). The authors used the services of private risk-rating agencies usually supplying information to investors or other private economic agents willing to pay for the information. The pioneering articles using those new measures were able to corroborate the theoretical proposition that institutions are related to economic development and growth. In fact, that institutions matter for economic growth has since then been asserted repeatedly, but has also encouraged a quest for more and better data.

Large-n cross-country comparisons thus rely on different kinds of indices that rank and score countries according to certain criteria, but a fundamental problem concerns whether the proxies are too far away from the theoretical concepts. In addition, measures used for representing institutional quality do not always reflect the theoretical idea of what institutions really are. As seen in Chapters 2 and 3, institutions provide the underlying constraints shaping human interaction: they give individuals the

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102 The information provided by risk-rating agencies includes for example ratings of a large sample of countries on aspects such as security of contracts and property rights, risk of expropriation, bureaucratic quality, prevalence of corruption etc.

103 The World Bank has for example embarked on an ambitious data-gathering mission and constantly expands its Governance Indicators Dataset under Kaufmann’s parole “If you cannot measure it, you cannot improve it!” See also www.qog.pol.gu.se for publicly available cross-nationally comparative data on issues related to institutional quality and quality of government.

104 The first large-n attempts to capture institutional quality for example employed Freedom House’s index of civil liberties and political rights as a proxy. But just as civil liberties and political rights do not fully capture the concept of democracy, democracy does not accurately capture the concept of institutional quality. Freedom House’s index and the subsequent more specialized indices of institutional quality are put together by expert evaluations, but it is not evident that the included variables capture the same things worldwide. Concepts such as political stability or the rule of law may for instance be proxied by number of policemen in the streets. But in many countries the police are in fact the source of instability and, naturally, such a measure does therefore not travel well between different contexts (see Peters 1998; Sartori 1991). In order to make the concept travel, a common strategy is to move up the ladder of abstraction. But if stretching concepts too much, we encounter problems with falsification, i.e., the concepts risk being overly encompassing and we cannot test theories. A related problem is that indicators may indicate many different things and may therefore be used to support whatever findings the study may come up with. Look for example at Feng’s seminal work entitled *Democracy, Governance and Economic Performance* (Feng 2003). One of its main findings is that political stability is crucial for economic growth, but it is important to realize how political stability is measured. Feng chooses to proxy political stability with a measure of inequality, and subsequently argues that political instability is bad for growth. But is it not really inequality that is bad for growth and not political instability? Depending on from which perspective you review your findings from a study using such a measure you can easily tell completely different stories. If interpreting his findings from a structural or Marxist perspective, Feng could for instance have named his book differently – why not *Inequality and Economic Performance*?
cognitive, coordinative, normative and informational micro-foundations for behavior as they enable, guide, and motivate them. Nevertheless, when measuring institutions, researchers often rely on performance- or outcome-measures, i.e., on estimations of how efficient the bureaucracy is, how high the expropriation risk is etc. The question is whether the fundamental issue of constraints is captured by such estimations (see Glaeser et al. 2004).105

Moreover, the various indices may also be unreliable. Measures of political rights or institutional quality are habitually based on subjective expert assessments, which can be argued to be too strongly colored by the current and recent economic performance rather than by future prospects.106 Another problem when employing cross-country regressions is related to the issue of technical specification or model fit. For sure, the statistical model is not to blame for the poor data it is being fed, but when trying to compensate for bad data, it often gets very far away from real world events and effects.107

Nevertheless, with the above potential weaknesses in mind, the idea here is to first develop operational indicators of the theoretical concept of credible commitments, and then, in Chapter 5, to include the indicators in a statistical model measuring the effect of this concept on water coverage.

History of Play

Turning to the indicators, a cooperative history of play clearly has to do with citizen rights being respected in the past. If the government habitually breaches agreements, repudiates contracts, or expropriates various forms of property or wealth, then the history of play is obviously non-cooperative. In the pioneering work of Knack & Keefer, Mauro, and others, respect for property rights was one of the measures imported from the private risk-rating companies. In the vast literature on property rights and economic growth that followed these articles, one of the indicators repeatedly shown to produce consistent results is the International Country Risk Guide’s (ICRG) index of quality of government. It consists of a subjective expert

105 The problem of relying on outcome or policy-measures rather than durable and permanent characteristics or constraints measures is perhaps most severe in the so-called varieties-of-capitalism literature where institutions are proxied by welfare state characteristics, trade union density, levels of inflation etc. For sure, such institutional traits can be perceived as constraints since they generate some form of patterned behavior, but few would give them the durability or permanence ascribed to institutions in Northian theory.

106 For example, if a particular country grows rapidly for some reason, then analysts tend to lower the risk rating – but has the risk really decreased just because there may have been an influx of foreign investments? Long-term dangers thus risk being overshadowed by short-term booms. Moreover, subjective risk indices have not performed well in predicting various forms of crises and political and economical instability, and their retrospective nature together with their dependence on perceptions rather than actual political conditions imply that the assessments might not focus enough on current developments or future probabilities (Knack 2002; Henisz 2000).

107 Recent cross-country regressions for example try to avoid endogeneity problems by coming up with clever instruments (see for example Acemoglu, Johnson, & Robinson 2001). However, identifying an instrument is not the same thing as finding an adequate and satisfactory causal explanation.
scoring of a particular country’s prevalence of corruption, law and order, and quality of the bureaucracy (see Mauro 1995; Knack & Keefer 1995). The quality of government index is the mean value of the variables corruption, law and order, and bureaucracy quality, scaled 0-1.108 The Fraser Institute’s measure on legal structure and security of property captures similar aspects and is together with the ICRG measure included in this dissertation to act as a proxy for a cooperative history of play. The index ranges from 0-10, and consists of the following indicators: judicial independence, impartial courts, protection of intellectual property, military interference in rule of law, and integrity of the legal system.109

Apart from the past protection of property rights, another supposedly important aspect of a cooperative history of play and trustworthy reputation is political stability, for which there is a measure in the World Bank governance indicators (see Bates 2006; Feng 2003; Beck et al. 2001; Alesina et al. 1996). The World Bank governance indicators are based on hundreds of variables measuring perceptions of governance. The estimates are normally distributed with a mean of zero and a standard deviation of one each year of measurement. This means that virtually all scores lie between –2.5 and 2.5 where higher scores implies better outcomes. The political stability estimate includes a number of indicators measuring perceptions of the likelihood that those in authority will be overthrown by violent means.110

_Tying the Grabbing Hand_

Turning to the second mechanism through which the government is proposed to credibly commit to protect citizen property rights, the quest is to find measures of how hard the grabbing hand is tied. Constraints is a keyword here. If government actions are constrained by citizens or by institutions under their control, a violation of property rights becomes highly unlikely.111 Tying the grabbing hand thus concerns transfer of decision-making power to the citizens and to lower levels of government. Consequently, indicators of power devolution and coordination mechanisms are of great interest. We therefore turn to measures of whether or not a country’s leader is constrained by the institutional framework and the citizens. Although there is a plethora of measures on democracy and power devolution, the measures are highly correlated and by and large substitute one another (Feng 2003). In this investigation, I choose the World Bank measure of voice and accountability as it incorporates many of the other

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111 To reiterate, if the state has extended suffrage or devolved power to the citizens it is suggested that it can no longer act completely at will, and the commitment to protect citizen rights is in this way made credible.
existing indices of how constrained the government is. For example, this measure includes a number of indicators measuring various aspects of the political process, civil liberties, political rights, and independence of the media together estimating the degree to which citizens can hold those in power accountable for their actions.112 As a proxy for the grabbing hand, I also include the Transparency International’ corruption perception index.113 This index measures the degree of corruption perceived by business people, risk analysts, and the general public, scaled 0-10 where higher scores means less corruption.114 Although corruption is certainly not exercised only by the government, its extent can be argued to be a sign of the potential predatory nature of the government (Kaufmann, Kraay, & Mastruzzi 2007; Shleifer & Vishny 1998; Bardhan 1997).115 Other independent variables of interest are the ones introduced in Chapter 1: GDP growth, population growth, physical water availability, and a dummy for privatizations. Data on physical water availability comes from the World Resources Institute’s Freshwater Resources 2005, data on economic growth and population growth comes from the World Bank’s World Development Indicators, and data on whether privatizations have taken place from an article by Bayliss (2003).

All independent variable are averaged from 1990 to 2004 or the closest year available (see for example Feng 2003 for the merits of such an approach).

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112 According to the World Bank, the voice and accountability measure and the political stability measure both concern the way in which those in power are selected and replaced.

113 Admittedly, the indicators used for history of play and tying the grabbing hand overlap to some extent. Corruption can for example also be argued to be a measure of past protection of property rights. But since it is the overall model’s explanatory power I am interested in rather than its particular indicators, such overlaps do not reduce the overall model’s validity.

114 See www.transparency.org

115 In the words of Kaufmann: “Behind the conventional definition of corruption (as the abuse of public office for private gain) lies the image of a predatory state, seen as a huge outstretched hand, extorting firms for the benefit of politicians, high officials, and bureaucrats” (Kaufmann, Kraay, & Mastruzzi 2007). Hall and Jones also provide support for this claim: “…while the government … protects against diversion, it is also in practice a primary agent of diversion throughout the world. Expropriation, confiscatory taxation, and corruption are examples of public diversion. Regulation and laws may protect against diversion, but they too often constitute the chief vehicle of diversion in an economy” (Hall & Jones 1999:84).
Table 4.2. Quantitative indicators

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**SELECTING CASES**

The large-n analysis accounts for all sub-Saharan African countries, the only restriction being data availability. In the qualitative analysis, the method and material, however, also place some restrictions on the number of cases that can be investigated. To reiterate, the dependent variable throughout this dissertation is the proportion of people with access to safe water as defined and measured by the WHO and UNICEF.\(^{116}\) Moreover, the outspoken ambition is to compare outcomes across countries and investigate whether credible commitments to secure citizen property rights can account for the variation in outcomes.

More than safeguarding that the selected cases vary in terms of water coverage, I choose countries that are similar in other respects, i.e., countries

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\(^{116}\) But an important caveat is that if only measuring success as high water coverage levels, it is possible to overlook the crucial question of change, and thus also give too little credit to countries making rapid progress in water service delivery. On the other hand, only looking at change would potentially make many countries with low water coverage levels seem successful. Since it might be questionable that an increase from very low water coverage levels to low water coverage levels truly makes a country a success story, I instead constructed a ranking of countries based on of how close they are to achieving the Millennium Development Goal target of cutting the proportion of people with access to safe water in half by 2015 (with 1990 as the base year). Yet, as it turns out, this ranking correlates strongly with the water coverage ranking. When for example constructing a group of successful countries and a group of less successful countries, the two lists thus produce essentially the same groupings. I hence settle for the intuitively more accessible of the two measures as a dependent variable, namely water coverage levels in the latest year available (2004).
that would be suitable to compare in a (reversed) most-similar system design.\textsuperscript{117} However, given the huge ethnic, linguistic, geographic, and climatic diversity of African nations this is of course a daunting task. Nevertheless, for the sake of sample conformity, I exclude all former French or French speaking colonies.\textsuperscript{118} From the water coverage ranking I thereafter choose twelve countries in total, three of which are among the highest ranked countries, three of which are among the lowest ranked, and six which are grouped into two groups in the middle of the ranking.\textsuperscript{119} Starting with the most successful country in terms of water coverage, the selected countries are: Botswana, South Africa, Namibia, Ghana, Malawi, Tanzania, Kenya, Liberia, Zambia, Mozambique, Somalia, and Ethiopia.\textsuperscript{120} A figure with the selected countries water coverage levels and their development over time takes the following outlook:

\textsuperscript{117} Selecting cases on the dependent variable can, however, be quite controversial. Ever since King, Keohane, and Verba advised against such a conduct in their influential Designing Social Inquiry (1994), researchers attempting to do this have faced resistance. True, King, Keohane, and Verba have provided important insights on the potential pitfalls – where selection bias probably is the most important one – associated with such an approach, but in small-n comparative studies, researchers generally argue that the risks are often overstated (Bennet & Elman 2006). In fact, since I have safeguarded that there is variation in the dependent variable, I find this approach to be a useful way of testing the credible commitment argument’s explanatory power (see Thomas 2005; Brady & Collier 2004; Collier & Mahoney 1996).

\textsuperscript{118} However, not all countries in the remaining sample have a British colonial background. For example, Namibia was originally a German colony and Mozambique was a Portuguese. However, in Namibia the British soon gained in influence and the legal system is now structured along the British legal tradition. Similarly in Mozambique; despite the Portuguese heritage, the new land law is written in English and with great influence from English common law. The countries in the above sample thus share many characteristics but differ on how they have succeeded in increasing water coverage. In addition, and to be completely honest, this choice of sampling is also necessitated by my limited knowledge in French.


\textsuperscript{120} All in all, by choosing twelve countries in total I investigate one-quarter of all sub-Saharan African countries, and this makes me confident that I safeguard generalizability while not losing focus and depth.
Figure 4.1. Water coverage over time

Note: Using data from WHO and UNICEF, the above figure depicts the countries selected for the small-n comparison, and the development of their water coverage levels over time.

We now have information on which countries are to be compared and we also know how credible commitments are defined and measured. Let us therefore turn to the empirical investigation and to Chapter 5 where the task is to investigate if the variation in water coverage corresponds to variation in credible commitments.
THE INVESTIGATION

OUTLINE
Using the operational indicators from Chapter 4, this chapter presents an empirical test of the theoretical argument developed in Chapter 3. To start with, I perform a qualitative comparative investigation which explores whether the governments of countries with high water coverage levels have established a more cooperative history of play and/or tied their grabbing hand to a larger extent than the governments of countries with lower water coverage. Then follows a fairly non-technical quantitative regression analysis which examines to what extent the credible commitment argument is valid and can account for variation in water coverage levels in a larger sample of sub-Saharan African countries.

A SMALL(ER)-N COMPARISON
As previously discussed at length: in the comparative investigation embarked upon here, the existence of protection against eviction and the absence of forced evictions, in combination with a consultation process, constitute the operational indicators of a cooperative history of play. In order to assess whether the governments have given up some of their decision-making powers, the existence of devolved land management responsibilities is compared between the selected countries. In short, the analysis consists of a review of land and tenure legislations of the different countries as well as of existing case studies conducted in the region. I will present the case studies in order of appearance on the water coverage ranking (see Figure 4.1), and thereafter provide a summary of the investigation where I establish whether the water coverage ranking corresponds to a ranking based on credible commitments.
Botswana

Looking at data on water coverage levels, Botswana clearly stands out as a successful case. Since independence in 1966, Botswana has succeeded in stimulating a rapid increase in the proportion of people with access to drinking water. Since 1990, the country has in fact been able to maintain the second highest water coverage level on the African continent; in 2000 the proportion of people with access to drinking water in Botswana reached 95 percent, second only to Mauritius (WHO/UNICEF 2004).

History of Play

First of all, assessing whether the government has established a cooperative tenure track-record involves analyzing the legislative framework in respect to land. In Botswana, tenure issues are clearly specified in law; the government adopted the State Land Act at independence in 1966 and the Tribal Land Act in 1968. A Presidential Land Commission was instigated in 1983 but recommended against any major changes. Minor amendments have, however, been made incrementally – for example in the Tribal Land (Amendment) Act from 1993 (Quan 2000a). There was also a policy review in 2002, and a new National Land Policy is currently being drafted reflecting increased urbanization but also involving further development of customary land management (Alden Wily 2003). Land policy in Botswana dictates that every household is entitled to two pieces of land: one for sustenance and one for residence. The direct consequence of this policy is that women get secure access to land to a greater extent than in many other countries in the region (Yahya 2002).

In Botswana, the issue of urban land management was also addressed at an early stage. In order to deal with the growing problem of landlessness and squatting accompanying the high urbanization rate of the 1970s, the government developed the Certificates of Rights (COR) and the Fixed Period State Grant (FPSG) to enable citizens to access state land. The COR were developed as an interim stage of tenure that would be affordable for the poor but still provide sufficient security as to encourage gradual investment and incremental upgrading. As a way for the government to encourage further investments, it also provides a subsidized loan for COR holders. Eventually, after the plot has been developed, the COR can be converted to a FPSG where land is leased from the state on a 99-year basis (Yahya 2002; Kalabumus 2000). The main purpose of urban land management in Botswana has thus been to implement an incremental upgrading scheme primarily focused on providing upgradeable tenure rights for low-income dwellers living in squatter camps outside major cities. Local authorities have in this way provided an alternative in between full title on the one hand and illegality on the other. The main principles have been a
simple deed as evidence of ownership, ownership in perpetuity, or the existence of an upgrading option, and the possibility of transferring the rights through sale or inheritance (Yahya 2002; UN-Habitat 2002a).

In peri-urban areas outside the municipalities, citizens can also acquire land through customary channels; either through a lease from the Land Boards or through a Certificate of Customary Land Grant. The existing property rights system thus includes a variety of forms under which land can be held, depending on individual circumstances. Conversion possibilities are also built into the system (Yahya 2002; Kalabumu 2000; Bruce 1998a). In the 1980s there was a fundamental review of the national land policy which further clarified the land tenure picture. The Presidential Commission on Land Tenure sought to integrate land policy with social and economic development, and the functions of the Land Boards, the town/district council, and the Department of Land were further clarified. The Presidential Land Commission, however, recommended against any disruptive changes in the customary tenure system, and COR and FPSG remained the standard tenure regimes on state land in urban areas (Yahya 2002; Quan 2000a).

Botswana’s land management is generally considered consultative. Regular land policy reviews have exposed various flaws, but after investigation and discussion, shortcomings have generally been rectified. Commissions of inquiry or expert committees have been set up regularly, as well as public hearings and workshops, and laws have been debated in the parliament etc. A general conclusion is thus that the government machinery in Botswana builds on a long tradition of consultation and that it facilitates people’s participation in the development process (Adams, Kalabumu, & White 2003; Hope 2000).

When it comes to the existence of anti-eviction laws, Botswana’s tenure legislation offers protection from deprivation of property without compensation alongside other guarantees of first-generation civic and political rights, including privacy of the home and other property. Expropriations are rare, and to be valid a number of conditions must exist. Expropriation must for example be “expedient or necessary” for certain specified public purposes and interests, and must be effected under legislation that provides for prompt payment of adequate compensation (Ng'ong'ola 2004). If expropriation takes place, the government must also compensate citizens for the improvements they have made in the property—various investment costs, planted crops etc. A legal framework offering protection against eviction is thus in place in Botswana, and it is generally considered to be fair and enforced impartially (UN-Habitat 2002a; Knox 1998e).

Taken together, the reputation established by the government of Botswana is generally considered to have been clearly and consistently trustworthy. In the overwhelming majority of cases of squatting, the government response is considered to have been cooperative. Instead of
denying the problem, the government has been proactive. Instead of leveling the ground with bulldozers, incremental upgrading programs have been designed and implemented (Yahya 2002). There is, however, one exception to this rule; the resource rights of the Basarwa (San-people or bushmen) were for a long time not legally recognized and the official land policy has resulted in a continued marginalization of these original inhabitants. The 1975 Tribal Grazing Policy and the 1991 National Policy for Agricultural Development promoted commercial farms that challenged the San people’s livelihoods. For a long period, they were recognized as tenants at will on government land – for instance in the Kalahari Game Reserve. Yet, as some observers put it: “This failing apart, the land policy that has been pursued by Botswana, may be described as one of careful change, responding to particular needs with specific tenure innovations” (Adams, Sibanda, & Turner 2000:147). And more recently, the San-people’s right to inhabit the land where their ancestors roamed has in fact been recognized by the legal system of Botswana. All in all, the government in Botswana has thus clearly established a cooperative history of play.

_Tying the Grabbing Hand_

Botswana is a unitary state with a parliament as the sovereign power in full competence in all areas of jurisdiction. When it comes to devolved decision-making, the constitution does not provide local authorities with any inherent competence. Instead all local authorities exist by virtue of the Acts of Parliament (Hope 2000). The potential weaknesses of this system have been recognized by the government, and a National Development Plan 1991-1997 set out to strengthen the position of local authorities in promoting economic development and to delegate more responsibility for development planning and implementation to the local authorities, while simultaneously increasing the capacity for such activities (UN-Habitat 2002a). The government has in fact put great effort into realizing those objectives, and significant powers, both regulatory and administrative, are now transferred to local authorities. All in all, there are four different types of local government in Botswana: District and Urban councils, Land Boards, Tribal Administration, and the District Administration. Their activities are coordinated by the Ministry of Local Government, Lands and Housing. Yet, although local authorities have responsibility for managing and constructing social infrastructure at the local level, they are still dependent on the central government for the financing of their activities (UN-Habitat 2002a).

When it comes to land management, approximately six percent of all land in Botswana is held with freehold titles, 23 percent is state land, and the remaining 71 percent is so-called tribal land (Adams, Sibanda, & Turner 2000). Tribal land is land owned by the communities through Land Boards

121 That is, decentralization takes the form of both devolution and deconcentration.
which work in trust for the benefit and advantage of citizens of Botswana and for the purpose of promoting the economic and social development of all peoples of Botswana. Operating since 1970, there are in total twelve Land Boards, supported by 37 subordinate Land Boards (Alden Wily 2003; Mathuba 2003). How these ought to work is set out in law. In fact, the Tribal Land Act already in 1968 provided for the establishment of Land Boards as a way of improving land administration and introducing power-sharing mechanisms. The Land Boards fall under the Ministry of Local Government, Lands, and Housing and have all the former powers of the chiefs in relation to land; e.g., granting of use rights, cancellation of rights, imposing restrictions, authorizing transfers, determining land-use zones, and hearing appeals from the subordinate Land Boards. Their principal responsibility is, as set out in law, to manage the land for the benefit of the citizens of Botswana (Mathuba 2003; Mathuba 1999). At their instigation, each Land Board was provided with a vehicle, office facilities, and an executive secretary employed formally by the ministry. The people who were to serve on the Land Boards were in turn offered training. To start with, senior chiefs were members of the boards but eventually the government provided them with other judicial roles (Bruce et al. 1998a).

The main Land Boards have twelve members and the subordinate have ten. Five of the main Land Board members are elected by the people at the kgotla (a traditional forum), and another five are nominated by the Minister of Local Government, Lands, and Housing. The additional two members of the main Land Boards represent the Minister of Commerce and Industry and the Minister of Agriculture respectively. The Minister of Land is ultimately responsible for the operation of the Land Boards and is accountable to the parliament (Quan 2000a). Following further amendments in 1993 it is now easier for citizens to appeal if they are discontent with a board decision, and in 1997 a new Land Tribunal was set up to fast-track such processes. The 1993 amendment also abolished the concept of tribesmanship, and the Land Boards are now explicitly intended to manage land for the benefit of the citizens of Botswana rather than for the tribesmen of the area. In a comparative perspective, tribal competition is in this way kept to a minimum and the ability of the Land Boards to pursue only a local developmental agenda is limited (Mathuba 2003; Quan 2000a; Mathuba 1999). Customary land management was further clarified in the consultative National Land Policy Review 2002, which concluded that land administration and management was generally in good health at the time (Adams, Kalabumu, & White 2003).

The dichotomy between state or private land has been downplayed in Botswana. Instead, there has been a continuous emphasis on locally accountable management and ownership of land (Adams, Kalabumu, & White 2003; Kalabumu 2000; Quan 2000a). Yet, some scholars question whether the Land Boards are sufficiently democratic and accountable; there
are concerns that since the members of the Land Boards are not elected by secret ballot but by the traditional kgotla-forum where large cattle owners are argued to have more influence than others, the outcomes are biased to the disadvantage of regular citizens. Others stress that central government still interferes too much in local decision-making, and that Land Boards are subject to bureaucratic inertia. Some also argue that the Land Boards are easily high-jacked by local elites (Marongwe 2004; Quan 2000a). However, much of the critique has no bearing as long as the position of Land Boards in the wider system of devolved local government is made clear by the government. For sure, the arguments put forward against direct and deliberative democracy in general can probably be directed towards the kgotla-forum as well, although the fact remains that the pre-colonial history of the kgotlas has been shown to bring significant legitimacy, and they are widely perceived as an important forum for decision-making at the local level (Acemoglu, Johnson, & Robinson 2003). Similarly, Land Boards in general have been shown to be an efficient way to take account of local conditions and provide for the participation of local stakeholders, such as traditional authorities and civil society groups. Land Boards are thus intended to facilitate the implementation of government policies, but they are also meant to be an institution where local stakeholders can be included. Since the creation of subordinate Land Boards, this principle of subsidiarity has been further highlighted (Adams, Kalabumu, & White 2003; Quan 2000a).

Another potential benefit of the Land Boards is that they remove customary land from the absolute control of local chiefs while still giving traditional leaders some representation and also retaining the principles of customary land law. As one observer put it: “...Botswana’s emphasis on local Land Boards as a means of land administration and gradual approach to policy reform demonstrates the viability of land management based on customary tenure and the development of local institutions, rather than a more centralised approach focusing on perceived need to transform customary tenure” (Quan 2000a:204). However, one of the most contentious issues, in Botswana and elsewhere, has however generally been how to put land allocation by traditional authorities under democratic control. In this respect, it is clear that Botswana provides a comparatively successful example of how this can be done. The Land Boards are generally perceived as legitimate both in tribal land management and peri-urban settlements. In fact, a general conclusion is that: “In no other country in the region has land been so judiciously administered as an essential component of good governance” (Adams, Kalabumu, & White 2003:10). Customary rules continue to exist and provide legitimacy to land holding, and the

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122 This can for example be concerns about whether the deliberative process can be manipulated by strong and powerful interests.
security and easy access principles embodied in customary tenure systems have been safeguarded, but land administration is at the same time transferred to more democratic bodies (Alden Wily 2003; Hope 2000; Kalabunu 2000). In this way, “The land board system in Botswana is perhaps the most successful attempt by the state to recognize the decentralised authority of tribal communities over land, and to a significant extent customary tenure rules, while at the same time easing traditional land administration authorities out of control” (Bruce et al. 1998a:203).

Yet the financial dependence on the central government is time and again put forward as an obstacle to full scale devolution. A too heavy reliance on the central government risks making local authorities less responsive to the needs of the citizens, and the Ministry of Local Government has therefore set out to reduce the dependence on government hand-outs by giving local authorities greater control of their budgets. There are also concerns that the people gaining power at the local levels belong to the same politico-bureaucratic elite that dominates the central government. Hence, in some respects, the decentralization process has had more traits of deconcentration than true devolution of power to autonomous local levels. However, in a comparative perspective Botswana is still held to be a country where the government is committed to gradually giving up more and more of its decision-making powers (UN-Habitat 2002a; Hope 2000). The role of chiefs has been gradually phased out and replaced by a decentralized land management system, but some of the principles of customary tenure systems have been retained. The Botswanan government has thus consistently employed an adaptation rather than replacement strategy when it comes to tenure reform, and the government has also eliminated distinctions between citizens from different tribes and subtribes (Knox 1998e).

In conclusion, the Botswanan establishment of Land Boards was clearly a policy shift towards local accountability and the devolution of land management powers. As the above analysis shows, it is apparent that the central government has created a coordination and collective action device for its citizens by transferring certain rights and responsibilities to lower level bodies (Toulmin & Quan 2000; Quan 2000a). Thus, the government of Botswana has clearly tied its grabbing hand by giving up some of its decision-making powers over land management.

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123 In fact, already in 1974 Tordoff argued that: “The growth of strong district councils is being encouraged [by the central government] and it is intended that they will increasingly become the focal point ... responsible for promoting the general well-being and economic development” (Tordoff 1974:302).
CHAPTER 5

South Africa

In South Africa, 88 percent of the population have access to safe drinking water. This undoubtedly places South Africa among the highest ranked sub-Saharan African countries in terms of water coverage.

History of Play

It is nearly impossible to understand the current tenure situation in South Africa without assessing the tenure system inherited from apartheid when land politics were largely characterized by resettlement (Royston 2002). The Group Areas Act of 1950 provided for the creation of ethnically defined homelands and for the eviction of millions of people from urban areas.\(^\text{124}\) The 1950s and 1960s saw a number of betterment programs where new townships were constructed and people were forced to resettle.\(^\text{125}\) In rural areas, confusion arose as a result of people being dumped where others already resided (Claassens 2000a). In the 1970s, settlements in townships and homelands grew rapidly and informality increased. Initially, the principal type of informal housing was backyard shacks, but in the 1980s squatter camps literally gained ground. Yet, to some extent, so did resistant movements demanding land and housing. Under growing pressure, the government embarked on a more cooperative strategy in the 1980s. The Black Communities Act of 1984 for example made it possible to establish 99-year leasehold and eventually also freehold titles for holders of section 6, 7 and 8 permits. The government also provided a capital subsidy to individual owners of land and the delivery of site-and-service schemes began. However, this approach was generally regarded as far from satisfactory. Living conditions in the informal settlements deteriorated further and the resistance against the apartheid government grew stronger (Royston 2002).

Taken together, the elected government of 1994 inherited an overall highly unequal land holding pattern,\(^\text{126}\) widespread informality in urban areas, and a complex web of overlapping rights in the former homelands (Ntzebesa 2000). Today, South Africa is generally considered to give high priority to resolving the legacy of apartheid land policies, and the

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\(^{124}\) Non-white settlements such as District Six, Sophiatown, and Cato Manor were destroyed and the inhabitants were forced to settle in townships outside the cities or were forced away from the urban areas altogether (see Durand-Lasserre & Royston 2002a; Royston 2002).

\(^{125}\) In the townships there were mainly three different forms of tenure – section 6, 7 and 8 permits – which were all temporary and basically amounted only to the right to occupy land. Permanent tenure was only granted in the homelands but was most often given to traditional leaders. Yet, even in the homelands, the land continued to be registered in the name of the state (Royston 2002; Claassens 2000a; Claassens 2000b).

\(^{126}\) More precisely, 13 percent of the land was designated to the black population (which constituted 80 percent of the total population).
government has embarked on an ambitious land reform program with three pillars. The first is land redistribution aiming for a more equal land holding pattern (Jacobs, Lahiff, & Hall 2003). This has so far been conducted on a willing-seller willing-buyer basis, but the slow pace of redistribution has recently forced the government to consider other not yet fully disclosed options (Lahiff 2005). The second aspect of the South African land reform is land restitution which aims at restoring land rights that were unlawfully violated or confiscated under apartheid (Hall 2003). Finally, tenure reform, which is of primary interest in this analysis, is intended to clarify the often overlapping and conflicting set of rights produced by the previous land management system (Makopi 2000).

In national legislation, secure land tenure is in fact put forward as a primary objective. It is also recognized that this security can be achieved under a variety of tenure forms, and citizens are encouraged to choose land tenure appropriate to their circumstances (Royston 2002). Still, even though policies promote a variety of tenure types, individual freehold is the most common. Until 1986, black South Africans were prohibited from owning property and many now seem to prefer this type of tenure. This is also the type of tenure promoted by the housing program (Ambert 2002; Cross 2002; Huchzermeyer 2002). The tenure track-record continues with the new legislation adopted in the 1990s. First was the Upgrading of Land Tenure Rights Act, 112 of 1991 (ULTRA) which was intended to upgrade informal land rights to (individual) ownership (Royston 2002). The “real” land reform, however, began after the democratic elections in 1994. The Bill of Rights in the Constitution for example gives the government the mandate to make previously insecure rights more secure (Donaldson & Marais 2002). In regard to security of tenure, the relevant legislation also includes the Land Reform Labour Tenants Act of 1996 which protects labor tenants against arbitrary evictions. The Interim Protection of Informal Land Rights Act was adopted in the same year, and was particularly intended to protect people living in the former homelands and under traditional leadership against eviction (Claassens 2000b). The Communal Property Association Act also addresses tenure issues as it provides for communal ownership. Moreover, the Extension of Security of Tenure Act of 1997 is intended to protect rural and peri-urban dwellers from eviction, and gives them the legal right to use the land they occupy. In addition, in order to make sure that evictions take place in an orderly manner, the Prevention of Illegal Eviction from and Unlawful Occupation of Land Act was adopted in 1998, along with the Transformation of Certain Rural Areas Act (Lahiff 2001). Finally, the latest contribution to tenure legislation was the Communal Land Rights Bill of 2002. It replaced the draft Land Rights Bill of 2000, which was never adopted (Cousins & Claassens 2004). South African policies for securing tenure are also closely connected to the delivery of formal housing. In order to address the housing backlog, households can apply for a capital-subsidy
scheme run by the housing department. This scheme is mainly focused on providing freehold tenure on new or vacant land at the expense of upgrading existing informal settlements. Nevertheless, lower income households can obtain a subsidy of 15,000 Rand that is intended to cover the cost of a serviced plot of land and a simple house (Cross 2002; Huchzeremeyer 2002; Royston 2002).

When it comes to protecting people’s tenure rights there is thus a whole range of legislation in place. In the sub-Saharan African region, such comprehensive national anti-eviction laws are generally not very common and South Africa in this respect stands out as an example for others to follow (Durand-Lasserve & Royston 2002a; Quan 1998). The existence of legislation aimed at increasing the security of land tenure can clearly be taken as a merit for the South African government’s cooperative intentions and willingness to establish a trustworthy reputation. The different upgrading processes involving numbering, consolidation, and replacing of shacks also signal that the government takes land tenure seriously. Moreover, the degree of consultation has been high and a number of land conferences have been held. However, the general tenure track-record is in fact not entirely cooperative. More precisely, in South Africa, rules on paper and rules in practice differ considerably. First of all, urban land tenure tends to sit uneasily between the Department for Land Affairs responsible for tenure reform, and the Department for Housing in turn drafting and implementing the various housing programs. In addition, housing policy is generally regarded to be more focused on coping with the housing backlog than on addressing tenure issues, and a coherent policy on regularization is therefore said to be absent (UN-Habitat 2005b; Royston 2002). Importantly, households often cannot afford participating in the upgrading process, or in other cases cannot afford the service charges levied on them once they participate (Cross 2002). Consequently, poor people’s first priority is typically not formal housing but the right to a piece of land which they can upgrade incrementally (Lahiff 2001). While it is true that the adopted legislation and the present upgrading processes signal the government’s cooperative intentions, the upgrading programs are in many cases not affordable and do not explicitly focus on tenure reform, making them insufficient for establishing a true cooperative reputation.

Instead, it is recommended that the question of tenure should be addressed separately from a costly upgrading process. The top priority of tenure reform in urban areas should therefore be upgrading by making informal housing legally secure (Cross 2002). In sum, when it comes to urban tenure, the government has made some progress and has to some extent communicated its cooperative intentions. However, to establish a
fully cooperative track-record legal security and more incremental affordable upgrading should be given more attention.\textsuperscript{127}

For sure, living conditions in urban areas are by and large far from satisfactory. Yet, although tenure conditions generally are insecure, a large proportion of the informal settlers live in someone else’s backyard where tenure conditions tend to be more secure than in squatter camps. Often the main house has access to services, and some form of agreement of occupation usually exists (Royston 2002). When we turn to rural areas, tenure tends to be even more insecure.\textsuperscript{128} The permit system developed under apartheid has virtually collapsed and the issue of tenure reform here presents challenges different from the ones faced in the other areas of land reform (Claassens 2000b). Admittedly, the Interim Protection of Informal Land Rights Act was developed to protect unregistered rights particularly in rural areas, but the Act is generally not regarded to provide sufficient protection (Cousins et al. 2005; Lahiff 2001; Claassens 2000b). Thus, tenure reform in the former homelands is the area of land reform that is receiving the least policy attention and has consequently lagged behind redistribution and restitution (Lahiff 2001; Sibanda 2000). Indeed, the Interim Protection of Informal Land Rights was initially intended as a short-term measure to stop the dispossession of people on state-owned land in the former homelands where communal land tenure systems are the most common type of tenure. Yet, as a legacy from apartheid policies where indigenous rights were not recognized as legal property rights, many dwellers in these areas do not have legally confirmed rights to the land they occupy despite the fact that many families often have resided there for generations (Claassens 2000b).\textsuperscript{129}

Taken together, in assessing the government’s tenure track-record, the conclusion is that since tenure reform in general has lagged behind other areas of land reform, the history of play cannot be deemed fully cooperative. Even though embarking on an ambitious land reform program – in many

\textsuperscript{127} One example of such incremental upgrading is found in the New Rest site in Cape Town. Here, representatives of the community have worked together with city officials and adopted a phased approach to tenure upgrading. Dwellers receive substantive rights to land, while affordability and flexibility are promoted. Instead of registering individual rights in the Central Deeds Registry, records are managed and controlled by street committees and neighborhoods. All in all, the system is held to be user friendly, and centered around local tenure practices while still fulfilling the goals set out for conventional formal land tenure systems (IIED 2006).

\textsuperscript{128} Traditional money-metric poverty measures show that in South Africa, the overwhelming majority of poor people live in rural areas. Looking at other indicators of poverty such as lack of access to water or energy further clarifies that the poor in South Africa are largely rural, black, and women (May 2000).

\textsuperscript{129} However, the concept of adverse possession found in the legislation might have the potential to help safeguard land rights not covered by the common law concept of ownership. At its optimum, the Interim Protection of Informal Land Rights can make sure that residents in the former homelands cannot be dispossessed without their consent or by formal expropriation. Formal expropriation in turn requires that their rights are quantified and thus in effect gives the land rights a value not previously recognized. The Interim Protection of Informal Land Rights hence provides a promising base for developing a concept of ownership through possession that diverges from the dominant common law concept of ownership in South Africa (IIED 2006).
cases reviewed as an instructive source of lessons for neighboring countries (see Quan 1998) – the South African government has thus not been able to create an entirely trustworthy reputation.

Tying the Grabbing Hand

During apartheid, all legislative, executive, and administrative powers were vested in the tribal authority while the state kept the overall ownership of land, and chiefs who resisted colonial encroachment were replaced by leaders who were more compliant. The traditional authorities in this way in effect became an extension of apartheid rule: complying with the apartheid system brought rewards in the form of land and power for the traditional authorities, but also resulted in that the ruling chiefs losing much of their legitimacy (Lahiff 2001; Ntzebesa 2000).

The apartheid policy of giving decision-making powers over land management to compliant chiefs still today brings conflicts and uncertainty, mainly due to the question of whether land principally should be vested in traditional authorities or in elected structures (Kyed & Buur 2006; Ntzebesa 2004; Cousins 2000a). A complex set of overlapping rights exists in the former homelands, and since apartheid policies interpreted customary law as to give decision-making powers to traditional leaders rather than to community members, the democratization of land management has been met with resistance from traditional authorities (Donaldson & Marais 2002; Ntzebesa 2000).

The constitution defines the government as comprising three distinct yet interrelated spheres: national, provincial, and local. It also places local government at the center of the development and planning enterprise. Moreover, the Development Facilitation Act guides land development and management decision-making by for example requiring all local government bodies to declare Land Development Objectives (LDOs) for their areas (Lerbert & Westaway 2000). However, others emphasize that the legislation on who has decision-making powers over local land management is not totally clear. Borrowing legitimacy from the customary system has been a successful strategy in other countries, although such a combination of legitimacy and legality must be developed very carefully. In contrast, in the South African case it is argued that the constitution includes a contradiction between traditional authorities and locally elected governments. This contradiction explains the conflict between the respective parties, and the question remains whether land should be transferred to democratic structures or to tribes (Cousins & Claassens 2004; Ntzebesa 2004; Claassens 2000b). The challenge in South Africa and elsewhere is to realize the potential benefits of communal tenure while doing away with the abuses which have taken place under it (Jensen 1998). Yet, it is clear that in South Africa, the Communal Land Rights Act took more than five years to negotiate and when finished by and large maintained the land management
function of traditional authorities the way it was created by the apartheid state (UN-Habitat 2005a). According to the definition of devolved land management in Chapter 4, however, in order to fully devolve land management powers, South Africa should depart from giving decisive influence to traditional leaders and instead go for elected local governments as the principal decision-making body.  

To conclude, as in the case of establishing a trustworthy reputation, the government has clearly made efforts to tie the grabbing hand. However, the failure to clearly specify and devolve decision-making powers inevitably leads to the conclusion that in a comparative perspective, the grabbing hand is not adequately tied: "...the ambivalence of government regarding the role of traditional authorities in a democratic system and the lack of support for elected rural councilors throws the prospects of democratic decentralization into serious doubt" (Ntzebesa 2004:87). The state is still the owner of the lands in the former homelands and largely fails to secure the rights of the citizens. The occupants of communal lands still tend not to have legally enforceable rights to the land they occupy and are still largely excluded from decision-making processes concerning land. Hence, the introduction of power-sharing mechanisms has been slow and the conflict between traditional authorities and elected bodies is still not fully resolved (Donaldson & Marais 2002; Claassens 2000a). In addition, both legislation and a clear policy on tenure reform are generally regarded to have been slower to emerge than in the other areas of land reform (Lahiff 2001; Ntzebesa 2000). However, the proposed Land Rights Bill did go a long way to protect rural people from arbitrary decisions by the state and tribal authorities. Had it been adopted, it would have confirmed rights to land, clarified who could make decisions and enjoy the fruits of investment in the land, and given customary rights legal protection. The Communal Land Rights Bill of 2002 on the other hand still involves some contradictions between elected structures and traditional authorities (see Cousins & Claassens 2004; Claassens 2000b; Makopi 2000; Adams, Cousins, & Manona 2000). Thus, the grabbing hand by and large remains untied.

**Namibia**

Despite being one of the most arid countries on the continent, Namibia has reduced its proportion of people without access to drinking water by roughly 50 percent since 1990 and now has a coverage level of 87 percent.

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130 As one observer puts it: “If they [traditional authorities] want to be involved in decision making structures, they must put themselves up as candidates and be elected. Government should make this clear to traditional authorities” (Ntzebesa 2000:302).
Namibia clearly faced highly unequal land holding patterns and conflicting claims in rural areas at independence in 1990. Given these circumstances, the government at an early stage recognized the importance of tenure reform, although the issue at times has been overshadowed by a debate over redistribution or restitution (Tapia Garcia 2004; Adams, Sibanda, & Turner 1999). Nevertheless, as a first step, the government and the opposition conducted a national consultation process concerning the land question, and held a land conference in 1991 together with a wide range of stakeholders. A few years later the 1994 People’s Land Conference, which more explicitly focused on communal areas, was initiated and mainly attended by NGOs. The tenure track-record continued with a draft Agricultural Land Reform Bill in 1995 that did not match the two conferences earlier in terms of level of public debate and consultation, and there was in fact initially some concerns that the land reform proceeded too slowly and without sufficient public debate (Adams, Sibanda, & Turner 1999; Subramanian 1998b). The final (Commercial) Land Reform Act introduced in 1995 was based on the principle of willing-buyer willing-seller, which evoked some criticism from NGOs who would have rather seen a more speedy land redistribution scheme (Tapia Garcia 2004). In contrast, the process of drafting the National Land Policy in 1995 incorporated the opinions of a number of different NGOs and other affected parties. In a similar manner, the draft Communal Land Bill was widely circulated for comments, and workshops were held throughout the country. The highly consultative process ended in the Conference on Communal Land Administration in 1997, which in turn informed the final formulation of the National Land Policy in 1998. Some significant concerns emanating from the public opinion and from the process of consultation were, however, overlooked in the draft Communal Land Bill (Mbaya 2000).

Moving on, the Namibian Constitution\(^{131}\) also promotes the rights to adequate housing, and informal settlements are included in official planning. Since the National Housing Policy of 1991 at an early stage recognized the importance of affordable and adequate housing, for example the UN-Habitat concludes that the government’s policy consistently has been one of upgrading rather than repression (UN-Habitat 2005b). The Namibian government aims at controlling squatting and has for that purpose reserved land for poorer households. In this way, Namibia has incrementally upgraded its human settlements, and policies are developed in an ongoing consultative process. A new draft Namibian Flexible Land Tenure Bill for example provides for the creation of a local land registry where informal settlers can be granted a so-called starter title which is affordable and

\(^{131}\) One of few African constitutions that are exclusively developed “internally” (Ng’ong’ola 2004).
predicted to adequately provide secure land tenure, which in turn should encourage private and municipal infrastructure investments. The current National Land Policy also highlights the importance of giving informal settlements and rural smallholders sufficient attention in tenure reform (UN-Habitat 2005b). This should be seen against the backdrop of the fact that informal settling grew rapidly in Windhoek following independence and that the abolition of apartheid-inspired control of human settlements. In order to address the land question for informal settlers, the Windhoek City Council first developed so-called reception areas to accommodate the influx of people to urban areas. However, this program was by and large unable to contain the growth of settlements within the planned boundaries. In addition, before adopting the starter-title scheme, most upgrading programs were unaffordable for the vast majority of low-income dwellers. Taken together, the reception areas were a top-down initiative and soon turned out to be problematic; residents in those areas for example generally perceived their land holdings to be temporary and insecure. As a response to the aspirations of the residents to gain ownership of their plots, however, the council eventually decided to honor the natural settlement patterns and to promote security of tenure in general. Consequently, the Windhoek City Council is by now regarded to have an adequate national housing policy in place. The Access to Land and Housing Policy of January 2000 states that all citizens should have adequate shelter that is healthy, safe, secure, accessible, and affordable, and they should enjoy freedom from discrimination in housing and legal security of tenure. Furthermore, the overall Development and Upgrading Strategy focuses on enhancing community self-reliance, organization, and partnerships, and on securing land title and housing in line with what is affordable for the residents (World Bank 2002b).

The management of the land, housing, and services falls under the Main Council and its Management Committee. The Access to Land and Housing Policy also sets out to make sure that key stakeholders such as the Shack Dwellers Federation and the National Housing Group are represented in the process. Hence, the institutional framework in place successfully accommodates the concerns and aspirations of the main NGOs and explicitly focuses on the improvement of basic services and security of tenure by allowing residents to obtain titles to their plots. Community initiatives concerning gradual improvements and investments are encouraged, and various forms of ownership are promoted to match the needs of the residents. More than the (Commercial) Land Reform Act and its Amendment Act (1995 and 2003), the National Land Policy (1998), and the (Communal) Land Reform Act (finally passed 2002), Namibian land reform rests on the Affirmative Action Loan Scheme. This is a system of subsidized loans targeted towards communal peasants wishing to acquire a farm in the commercial area (Tapia García 2004). Taken together, it is clear that in Namibia, land tenure reform in consultation with the concerned
parties has been an important component in the efforts to upgrade human settlements (World Bank 2002b; UN-Habitat 2001).

The Namibian case also illustrates that, if given a chance, citizens themselves to a considerable degree engage in strengthening their claims to land. The Namibian Shack Dwellers Federation for example brings together 361 saving schemes and 14,000 members, mainly women, with the explicit goal to help poor people access and develop land. The federation assists residents in their land negotiations with the municipality and has compelled the city to accept and support the notion of incremental upgrading. Listening to the demands from the Shack Dwellers Association and others, the city now provides subsidies to low-income dwellers in order to make investments in land and property feasible. Members of the saving scheme pay the municipality to provide basic infrastructure that reaches the border of the block where they live. Thereafter they have the opportunity to gain individual occupation rights and they are themselves involved in dividing the block into equal shares for housing to which services then can be extended. By this procedure, residents can wait to extend services until it is affordable, and by installing the infrastructure themselves, overall development costs for the residents are reduced. In fact, this phased and flexible approach is held forward as an example for other countries to follow. In conclusion: “The strength of local organisation, the political will of the government (including planners) to redress inequalities from the apartheid system, an incremental approach to upgrading living conditions, and support from international civil society organisations have resulted in tangible benefits in the lives of historically disadvantaged groups. Learning visits have been organised between urban centres in Namibia and internationally” (IIED 2006:5).

Taken together, forced evictions have been rare and consultation has taken place to a comparatively large extent in Namibia. This fact, together with the established anti-eviction laws and the incremental upgrading approach deployed towards informal settlements, provide grounds for concluding that Namibia’s history of play has been cooperative.

*Tying the Grabbing Hand*

Namibia has adopted an approach to land management that is similar to the one in Botswana. As in other countries there are concerns over which role to give to traditional authorities, whose legitimacy was significantly undermined during apartheid rule when the customary system was manipulated to serve the interests of the ruling elite. In Namibia, traditional authorities are now being reformed and act alongside modern governance structures. More precisely, in order to devolve power to lower levels, the Namibian National Land Policy states that Land Boards are to be given control over land registration and titling (Tapia Garcia 2004). Namibia’s
land policy is hence regarded to include a fruitful combination of customary legitimacy and statutory legality (Alden Wily 2003; Quan 2000a).

In Namibia, land management authority is in practice incrementally being removed from chiefs and transferred to elected or at least appointed Land Boards, which are seen as a means to take account of local conditions and provide for the participation of local stakeholders such as traditional authorities and civil society groups. Land Boards are thus meant to facilitate the implementation of government policies but are also intended to be an institution where local stakeholders can be included. Since the creation of subordinate Land Boards, the principle of subsidiarity has been further highlighted in Namibia (Quan 2000a). Land administration is thus incrementally being transferred to more democratic bodies while the inclusiveness and legitimacy embodied in communal land management is still being safeguarded (Alden Wily 2003).

Parallel to this development, the growth of individual tenure has increased in communal areas, and under the influence of developments in Zimbabwe, land conflicts have intensified during recent years (Marongwe & Palmer 2004b). The status of private land ownership is, however, regulated by the constitution and generally takes the form of surveyed freehold farms with title deeds. Yet, multiple ownership is also common and acts as an insurance against the risk of drought. True, the growth of individual tenure has produced some confusion in the process of converting communal land into freehold, but Namibian land policies clearly recognize the need for coordinating the activities of traditional authorities with regional and local government institutions in the area of land administration (Subramanian 1998b). The Communal Land Bill specifies that the Land Boards should include representatives from traditional authorities, farmer organizations, regional councils, women groups, nature conservancies etc. None of the board members is elected and the boards include a broader range of representatives than in for example Botswana, which may lead to a better consideration of local interests. Taken together, since the district level agencies have a considerable degree of autonomy from the central government, the communal Land Boards are proof of relatively far-going devolution of land management responsibilities (Alden Wily 2004). Namibia can thus be argued to have followed the Botswana route towards devolved land management: customary rights remain an integral part of land management but in order to address the potential problems inherent in exclusive chiefly rule, their administration is put into more neutral bodies.

Namibia is divided into 13 administrative regions which in turn are divided into 102 constituencies, and the general land policy promotes decentralization and community involvement (UN-Habitat 2005b). The local authorities therefore enjoy a good deal of autonomy and have generally been innovative and responsive. The Namibian government is thus considered to take decentralization seriously, and functions and decision-
making powers previously held by the central government have been transferred to lower levels (UN-Habitat 2001). The constitution also states that no person should be subjected to interference with their homes; expropriation must follow legal standards and citizen property cannot be confiscated without just compensation. Taken together, power-sharing mechanisms are in place in Namibia, and the grabbing hand is comparatively tied.

**Ghana**

When it comes to access to drinking water, Ghana has achieved considerable improvements since 1990. In 2004, 75 percent of the population had access to safe water compared to 55 percent in 1990. This makes Ghana a country close to achieving the MDG target of cutting the proportion of people without access to drinking water in half, and places them high on the ranking of sub-Saharan African countries in terms of water coverage levels.

**History of Play**

After independence in 1957, all lands previously vested in the colonial organ of the Governor General were transferred to the president. The Stool Lands (Validation of Legislation) Act of 1959 (Act No. 30), the Stool Lands Act of 1960 (Act 27) and the 1962 Administration of Lands Act (Act 123) further strengthened the role of the state but also recognized the interests of customary authorities – in Ghana referred to as stools or skins. The early tenure track-record also includes the State Lands Act (Act 125), the Survey Act, and the Land Registry Act – all adopted in 1962 (Kasanga & Kotey 2001). In order to further address the problem of insecure tenure and uncertain land transactions, the government of Ghana introduced a land registration scheme in 1986. The Land Title Registration Law from the same year also allowed customary interests in land to be registered, and land can since then be held legally by individuals as well as groups and families (Alhassan & Manuh 2005).

Upgrading programs were adopted already in the 1980s. At that point in time they were characterized by a top-down approach, but in the last decade they have predominantly focused on involving the respective communities in the process and encouraging residents themselves to invest in housing and related infrastructure. While land administration and ownership structures previously made it difficult to effectively address housing and infrastructure issues, upgrading programs have in recent years to a large extent engaged local consultants and local contractors, and citizens are generally considered to have a substantial degree of influence (World Bank 2002a).
Ghana’s current National Land Policy is from 1999 but originates in a process that began with the 1973 Law Reform Commission, whose final report was delivered to the Ministry of Land and Forests in 1974, which in turn commissioned various experts and committees to take a closer look at the recommendations. A Land Policy Committee with members from a broad range of institutions was instigated, and in the mid-1990s, a draft of the interim policy was circulated among various stakeholders. A land policy consultant thereafter traveled the country to collect views and opinions, and a revised draft was discussed in a national land policy workshop in 1997. The conference attracted more than 120 participants representing different land holding interests and stakeholders. Although there might have been a lack of grass-root institutions represented in the process, the government of Ghana still stands out as a country engaged in consultation and participatory approaches (MoLF 2003; Kasanga & Kotey 2001).

When it comes to anti-eviction laws and the existence of arbitrary evictions, the UN-Habitat and the Center on Housing Rights and Evictions (COHRE) conclude that, in Ghana, land tenure is generally secure (COHRE 2006; UN-Habitat 2001). The government has put effort into protecting people from forced evictions and there are legal ways to register and document ownership of property. However, even though protective legislation is in place, there are some reservations against the way in which the state acquires land for public purposes – especially when it comes to the payment of adequate compensation. Smallholders are continually under substantial pressure from large-scale cocoa farms or timber plantations (Kasanga 2003). The intense competition for land and the complexity of the various forms of customary tenure clearly poses a serious challenge to land management in Ghana. However, the government shows awareness of the potential problems and has enacted innovative legislation requiring all long-term claims to land to be formally registered while continuing to also grant legal recognition to local community-based tenure systems (Knox 1998a). Dwellers can thus quite easily acquire a Certificate of Occupancy, which provides protection and proof of formality, and there are instances to turn to if the rights are violated or compensation not paid. Furthermore, the 1992 Constitution guarantees the right of every person to own property. It also includes the right to housing, but the rapid urbanization indeed poses a real challenge for land management (Kasanga 2003). Individuals in rural areas also have a guaranteed right to a plot (as long as they do not permanently abandon the land) and eviction of community members is virtually non-existent (Knox 1998a). In addition, the gender balance of land access in Ghana is improving (UN-Habitat 2001).

Taken together, the tenure track-record in Ghana has in a comparative perspective predominantly been cooperative even though the security of land tenure can improve further. The upgrading program has involved local communities and signaled the government’s cooperative
intentions (World Bank 2002a). Although insecure land-tenure conditions no doubt still exist in both customary systems and on land managed by the state – and especially in their interface during conversion, land and tenure issues are comparatively clearly defined in both the constitution and in by-laws, and no extensive evictions have been reported. For sure, laws and regulations can be disseminated to wider segments of society, but promising conditions do exist; communities are clearly getting more involved as governance in general is getting more devolved, and participation is recognized as a cardinal institutional ingredient in the ongoing reforms. The current decentralization process (see below) thus holds important potential for community level participation to be developed further (Alden Wily & Hammond 2001; Kasanga & Kotey 2001). In conclusion, given the incremental reform procedures and the ongoing policy process identifying constraints and opportunities, the overall tenure track-record of Ghana has been comparatively cooperative.

**Tying the Grabbing Hand**

The 1993 Local Government Act (Act 462) provides the framework for decentralization which has long been an important feature of institutional reform in Ghana (Kasanga 2002). The country is divided into ten regions which in turn are divided into 110 local authorities. The local authorities – municipal and metropolitan assemblies – are responsible for the overall development of their respective districts and for the management and upgrading of their human settlements (Kasanga 2002; see also MoLF 2003). The devolution of government powers was in fact initiated already in Law no. 207 in 1988 in which 22 central government ministerial departments transferred power vertically to district assemblies, and in which local government staff from the Ghanaian government horizontally shifted power to members of the district assemblies. Law no. 207 was eventually replaced by the Local Government Act of 1993, which gives district assemblies the power to exercise political and administrative authority in the district (World Bank 2002a).

An important feature of Ghana’s land administration is that since close to 80 percent of the land is administered by customary systems, the local governments operate in parallel with relatively powerful traditional authorities (Kasanga 2003). However, the 1992 Constitution includes a considerable degree of checks and balances intended to prevent the violation of private rights, although there are still some concerns that the continued strong customary authorities may misuse their powers. The constitution states that traditional authorities should act in the wider interest of the community and consequently manage the land in trust for the residents. In practice, however, they might have the possibility to act more as landlords than trustees. The traditional authorities hold the so-called allodial interest in land, but this can be misused by chiefs equating this
interest with their own private freehold. Hence, the chiefs might disregard the fact that they do not own the commons themselves but hold them in trust for the real owners: the communities (Alden Wily & Hammond 2001; Kasanga & Kotey 2001). At the same time, however, Ghanaian smallholders risk suffering from excessive state control of land, and the strong customary authorities therefore act as an important constraint on the central government. The constitution is also very clear when it comes to land management responsibilities and the concept of trusteeship. Article 36(8) states: “…the state shall recognize that ownership and possession of land carry a social obligation to serve the larger community and, in particular, the state shall recognize that the managers of public, stool, skin and family lands are fiduciaries charged with the obligation to discharge their functions for the benefit respectively of the people of Ghana of the stool, skin or family concerned, and are accountable as fiduciaries in this regard” (see Kasanga & Kotey 2001:1).

On customary lands, residents can obtain so-called customary freehold which includes the rights to occupy and derive income from the land in question. The customary freehold is also transferable within the community and held in perpetuity. Outsiders can be granted leaseholds on the land and there various share-cropping arrangements also exist. Importantly, women in Ghana tend to enjoy greater protection than women in many other African countries (Alden Wily & Hammond 2001).

As in many other countries, advocates of the institutionalist property rights school have regarded the customary system as irrational and outdated, yet the government in Ghana has endowed traditional authorities with constitutionally supported functions. The customary system operates relatively autonomously, but traditional authorities are not allowed to serve as official registration authorities or as revenue collectors (Alden Wily 2003). Some observers see this as an obstacle to devolution and decentralized administration, but given the fact that customary authorities often have democratic deficiencies, this division of labor and power is generally regarded to be in the interest of regular citizens. In fact, the parallel systems of formal decentralized governments and the continued existence of traditional authorities have been part of an incremental legislative approach aimed at combining legitimacy and legality (Toulmin 2000). The indigenous customary institutions are thus considered to provide historical legitimacy while the constitution and State Land Commission make sure there is also formal and legal protection from abuse (Knox 1998a). In this way: “A traditional drive towards a single tenure system under state law is giving way to acceptance of diversity…. Centralised land administration is giving way to locally-organised and sustained systems. ‘Big Bang’ approaches which seek to solve problems all at once are giving way to incremental and ‘learning-by-doing’ approaches” (Alden Wily & Hammond 2001:27).
Moving on, land commissions have been part of Ghana’s land policy since the 1969 Constitution, but have in fact at times been criticized for operating too close to the president (Kasanga & Kotey 2001). The 1992 Constitution and the Land Commission Act of 1994 (Act 483), however, also provide for ten regional land commissions intended to move the commissions closer to the citizens. Nevertheless, there are some concerns that Ghanaian land management is still too centralized, although decentralization is regarded to have been a prioritized area ever since the military government transformed itself into a democratic civilian regime and held multi-party elections at the end of 1992. District assemblies were elected in 1989 and the main outlines of a decentralized system were incorporated into the 1992 Constitution (Crook & Manor 1998; see also Kasanga & Kotey 2001). In a comparative perspective, it is clear that land legislation in general supports decentralization: “The decentralised regional lands commissions are charged with the management of public and vested lands. The commissions have wide representation and appear to be doing a good job, under difficult conditions” (Kasanga & Kotey 2001:7).

Clear socio-institutional constructs of community do exist in Ghana. Local tenure developments build upon these constructs which help customary systems modernize and evolve into more democratic processes. The National Land Policy is generally considered to form a good basis for such a process. The commitment to community participation opens up for inclusive and developmentally sound strategies, and the political system in Ghana is generally regarded to prioritize good governance and power-sharing mechanisms (Kasanga & Kotey 2001; UN-Habitat 2001). All in all, power devolution has existed for more than twenty years, and Ghana is thus regarded as, “…a country not just with a strongly developed sense of party politics but also a tradition of community politics, and a history of local government experiments going back to the colonial reforms of 1951” (Crook & Manor 1998:204; see also Ribot 2004). The grabbing hand has thus been facing constraints ever since independence but since the early 1990s in particular.

**Malawi**

While Malawi ranks in the upper half of the sub-Saharan water coverage ranking, the country still has a large proportion (37 percent) of people without access to safe water. However, progress has been rapid since 1990 when 60 percent lacked access, meaning that the MDG target of cutting the proportion of people without access to drinking water in half is clearly within reach.
History of Play

Until the early 1990s, Malawi’s tenure track-record was all but cooperative, and land policies in general did not make land tenure secure or stimulate smallholder agriculture. As in many other countries, the colonial land policy vested the rights to all lands in the British sovereign and appointed local representatives for administration (Kandodo 2001). When gaining independence, the Land Act of 1965 transferred all powers previously vested in the colonial administration to the president, and commissioners who exercised power on behalf of the British sovereign were replaced by ministers from the Malawi government. The government was then strictly controlled by President Banda who saw customary tenure as an obstruction to development and instead forcefully advocated private forms of tenure (Knox 1998d). Banda for example stated in the parliament that the prevailing method of landholding and cultivation in Malawi seriously hampered the economic development of the country and disqualified agriculture as the backbone of the development. Official tenure policies consequently favored private titling, and particularly private large estates, which implied that much customary land was lost to private large-holders (Marongwe 2004). The Malawi Registered Land Act from 1967 was largely based on the Kenya Registered Land Act of 1963, and thus urged for private land holdings. At the same time, customary systems were conceptualized as open-access regimes where no one was held accountable or responsible.132

Until the 1990s, Malawian smallholders were generally treated harshly and mainly perceived as a potential labor supply for the larger farms. While the large estates were granted the privilege to produce the most valuable crops, small-scale farmers were required to sell their crops to a marketing board – typically at a price lower than the market price. The surplus generated by the marketing board was in turn siphoned off to the larger estates through soft bank loans and thus constituted a hidden subsidy to the larger farms controlled by a small elite. The structural adjustment programs (and the implicit assumption that a functioning private market would arise without supporting and regulatory institutions) of the 1980s made things even worse as the erratic government performance now was complemented by a failing private market (Peters & Kambewa 2007).

Meaningful change, however, occurred after Banda was replaced by democratic rule in 1994. The constitution that followed for example provides protection from arbitrary deprivation of property and sets out to guarantee secure tenure and equitable access to land: all persons shall be able to acquire property and no person shall be arbitrarily deprived of property (Ng'ong'ola 2004). A Presidential Commission of Inquiry on Land

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132 President Banda for example regarded customary land from the perspective that everybody’s baby is nobody’s baby (Ng’ong’ola 1982).
Policy Reform was established in 1996 with the aim of achieving a more efficient, equitable, and environmentally sound land tenure system. Its conclusion stated that the privatization programs of the past had not produced secure land tenure. Instead, the new land policy set out to clarify and strengthen customary land rights and also incorporate traditional authorities into the formal land administration. In Malawi, customary land constitutes about 70 percent of national land and the new policy provides the opportunity to register this land as private usufructuary rights held in perpetuity with full legal status and with the possibility to use the land as security for a mortgage loan. The idea behind this titling ambition was obviously to replace the dualism inherent in the prevailing mix of customary and statutory law, and consequently to make land tenure more secure, which in turn would stimulate investments and productive activities. Importantly, the democratic government that took office in 1994 also by and large provided a supportive political framework for such a process. Evictions have for example been rare in the recent decade, and worth noting is also that a majority of ethnic groups in Malawi have matrilineal origins, and that women therefore generally have comparatively secure land rights (Knox 1998d).

The elected government of Malawi realized the importance of an incremental reform in land administration, and for this reason, a consultation process was at center stage for all tenure policies of the late 1990s (Marongwe & Palmer 2004b; Kandodo 2001). The consultative process was initiated by the Ministry of Lands and Valuation when it embarked on the Presidential Commission of Inquiry in 1996 with the stated objectives to recommend a comprehensive national land policy that would provide for effective land administration and security of tenure. The commission by and large applied a participatory approach and worked independently in a transparent and inclusive process. The consultation process involved more than 200 public hearings in both urban and tribal areas, and the draft land policy builds on the commission’s report published in 1999 (Mbaya 2000; see also Ng’ong’ola 2004; Alden Wily 2003). The final Malawi National Land Policy was approved by the cabinet and the parliament in 2002. The Special Law Commission was formed in the following year in order to review all land-related laws and to conduct further consultations with civil society (Peters & Kambewa 2007).

Given the important change in tenure policies in the early 1990s, and also the high degree of consultation and the participatory process, Malawi is regarded to be a country with a holistic approach to land reform, and the country clearly shows a cooperative tenure track-record in recent years.

_Tying the Grabbing Hand_

In a spirit of general neglect towards customary land holdings, the Customary Lands (Development) Act of 1967 made government acquisition
of customary land possible without consulting the concerned communities. Large-scale private estates were for a long time clearly favored at the expense of rural smallholders (Marongwe 2004). Yet, outside observers put great hopes in that the democratic government that took office in 1994 would engage in consultation and entrust land once again to local communities in order to increase smallholder investments and productivity (Knox 1998d). Subsequent land legislation at least partially acted on these hopes and Malawi’s National Land Policy now stipulates that traditional authorities are to work as land administrators. However, they also need to cooperate with a village land committee consisting of three locally elected advisers (Alden Wily 2004). The system now operating can be seen as proof of the wish to combine modern and traditional systems, where the rule of chiefs is to be complemented with elected officials. The new land policy aspires to democratize village land allocations and end headmen’s exclusive authority to allocate land (Kandodo 2001).

In Malawi, detailed and formal policy commitments have clearly been made to move land administration closer to the citizens. Decentralization is generally put forward as a key component in modernizing Malawi’s land tenure system, and land administration is to a large extent devolved to lower levels (Alden Wily 2004; Alden Wily 2003). In conclusion, land legislation supports the decentralization process and provides for a high degree of empowerment of the local levels as well as means to overcome the potential problems inherent in chiefly rule. Yet, traditional authorities are not ignored altogether since the locally elected governments do indeed also create space for the engagement of chiefs in local governance and development (Kyed & Buur 2006).

The new land policy recognizes that the previous practice of fraudulent disposal of customary land by both traditional authorities and government officials resulted in an imminent threat of eviction. For this reason, the new policy sets out to increase accountability and transparency in customary land allocations as well as in appropriation of land by the central government. The policy explicitly seeks to recognize the authority of traditional authorities, but also tries to make such land management systems more accountable and representative (Peters & Kambewa 2007). In this process, the new land tenure system sets up customary land committees headed by a chief and three community elders (of which at least one must be a woman) who are elected by the community members. Moreover, each customary area is supposed to have a Traditional Land Clerk who registers land transactions taking place on customary land. Hence, when it comes to transferring decision-making powers to lower levels, Malawi has clearly embarked on a process of devolution. The Local Government Act delineates the decentralization framework and the government has set up relevant committees and district planning guidelines (Work 2002). A mixed approach, where customary land is incrementally incorporated into a formal
land management system, has been called for, but considerable challenges on the ground still remain (Peters & Kambewa 2007). The ongoing decentralization process has for example spurred intensified competition over valuable lands and the practice of having a chief as a chairperson of the land committees has been questioned. In addition, tenure issues in Malawi are still characterized by shrinking land holdings for smallholders, and the growth of the estate sector in past decades has to a large extent marginalized lands under community-based tenure, which in turn has produced predicaments when it comes to meeting food security needs (Knox 1998d).

Yet, in conclusion, it is clear that since President Banda who ruled the country from independence in 1964 up until 1994 was succeeded by a democratic government, overall political reform underwrites and guides land policy changes. It is also clear that since 1994, land management power in Malawi has in a comparative perspective to a large extent been devolved to lower levels. The 1994/1995 constitution includes human rights clauses and an assurance to abide by the rule of law, and constraints on the grabbing hand have since then had firm foundations in the Malawian society.

**Tanzania**

In my sample, Tanzania belongs to the group of countries in the middle of the ranking. Progress has, however, been rapid and 62 percent of the population has access to safe drinking water according to the latest WHO and UNICEF data.

**History of Play**

The tenure track-record in Tanzania started off on a non-cooperative history of play when the state embarked on a major villagization-program in the late 1960s. The so-called ujamaa-villagization during 1967-1973 included major relocations and the resettlement of millions of people (Wanjala 2004; Bruce et al. 1998b). Under this policy, the customary rights of land holders were generally neglected and the state expropriated almost all land and related assets. Legal procedures were not followed and force was used arbitrarily as the militia and other armed bodies were deployed in the forced removal of people (Okoth-Ogendo 2000; Lorgen 1999). Naturally, the villagization created great confusion and insecurity, and citizens and policymakers have ever since struggled to disentangle land holders from the resulting uncertainty. For example, the 1975 Village and Ujamaa Villages Act set out to extinguish the existing customary land tenure, although its implementation was difficult and caused conflicts over land holdings (Benschop 2002; Bruce 1998b; Kauzeni, Shechambo, & Juma 1998). At any rate, arbitrary evictions and forced removals have not been frequent since the villagization program ended. With a few exceptions – evictions have for example been reported among the pastoralists in Serengeti National Park as
well as from the mining districts – the Centre on Housing Rights and Evictions (COHRE) does not report any larger scale forced removals in recent years. Tanzania’s new tenure laws are unique since they have been designed specifically to protect the more weakly tenured sectors, such as those holding land in customary ways (Alden Wily 2000a).

Yet, it is evident that the previous lack of a sustainable housing policy led to an uncontrolled growth of unserviced informal settlements. The first approach to handle this was a policy of eradication or so-called slum clearance in the 1960s. The 1970s and 1980s saw more cooperative efforts and upgrading programs, and in some settlements households gained 33-year leasehold titles or occupancy rights. The colonial legislation governing land tenure systems was by and large retained and all land was vested in the state. The Land Acquisition Act of 1967 underscores that the state, through the president, is the owner of all land (Kauzeni, Shechambo, & Juma 1998).

A critical policy shift, however, occurred in the mid-1990s. The 1995 National Land Policy effectively ruled out the eradication option and committed the government to upgrading informal settlements. Important policy changes were the introduction of the ability to obtain a 99-year Right of Occupancy, and also the recognition that residents of informal settlements should have their rights recorded and maintained by a land allocation authority. The new policy also acknowledged that although more than 50 percent of urban residents live in unplanned settlements, the stock of housing is to be preserved and the property rights of the inhabitants should be respected. The areas should thus not be cleared but rather be upgraded and consulted. Upgrading plans are in turn to be prepared and implemented by local authorities with the participation of residents and their local community organizations (World Bank 2002c).

Taken together, since the sudden disruption of land holding systems between 1967 and 1973, the government has embarked on a more cooperative track. In 1992, the Presidential Commission of Inquiry on Land Matters delivered its findings after two years of extensive consultation. By undertaking such a consultation, Tanzania clearly stands out as a country that has embarked on a systematic and inclusive process of inquiry, and the process has repeatedly been described as well-conceived and well-executed (see Alden Wily 2003; Bruce et al. 1998b; McAuslan 1998). The commission’s report resulted in the National Land Policy of 1995, considered to be a milestone in tenure policy. However, disagreement soon arose between the government and the head of the commission. The critics contend that the recommendations of the commission have been set aside, that the adopted laws do not protect customary rights, and that the state, through the Commissioner of Lands, still has too large of a say in land matters (Shivji 1998). Even though there is no consensus on to what extent the commission’s standpoints were actually adopted, it is clear that the debate has been open and lively. The proposals have in this way, “…been
the product of a good deal more thought, investigation, preparation and participation than has occurred elsewhere in Africa, with the exception of South Africa, and the Government deserves considerable credit for that” (McAuslan 1998:551). Tanzania also stands out as a country that has given priority to gender issues and has reformed customary rules of inheritance in order to allow women to be lawful heirs (Bruce 1998b). All in all, in the recent decade, the tenure track-record has been on a comparatively cooperative path.

_Tying the Grabbing Hand_

The Tanzanian experience has in recent years been dominated by a conviction that central government has to devolve power to lower levels of government in order to improve governance and accountability mechanisms. A number of commissions, workshops, and seminars were undertaken starting in the early 1990s, and they all concluded that it was necessary to downsize the central government and decentralize more power (UN-Habitat 2002a). These changes in local governance have also been proven to be closely linked to changes in tenure management, and a number of community-based mechanisms for land and natural resource management have developed in Tanzania during the last decade (Alden Wily & Hammond 2001; Bruce et al. 1998b). The 1992/1993 Presidential Land Commission for example suggested far going decentralization as it identified a strong link between secure land rights and power-sharing mechanisms. The control of land and the exercise of power were regarded as closely interrelated, whereby the commission proposed a transfer of power organs to levels closer to the citizens. The commission also recommended the creation of the National Land Commission, which would constitute a democratization of radical title. However, on this point the adopted act diverged from the commission’s advice. Yet, even though still vested in the state, there is now greater protection from public abuse than before (Okoth-Ogendo 2000). In 1999, the Land Act and Village Land Act were drafted, but as mentioned above, the chairman of the previously appointed Presidential Commission did not concur with how the act was formulated (Manji 2001; Shivji 1998). Other observers, however, contend that it does in fact not depart significantly from the commission’s recommendations (Benschop 2002; McAuslan 1998; see also Alden Wily 2003). The Land Act and the Village Land Act were thereafter accompanied by the Courts (Land Disputes Settlements) Act in 2002 (Alden Wily 2004).

The local government in Tanzania is divided into 25 regions, 112 districts, and 9,000 villages. Each district has a district council and each village has a village assembly and a village council (Benschop 2002). According to the Land Act and Village Land Act of 1999, land should be managed “…by the village, at the village, for the village – the social, spatial and legal institutional foundation of rural Tanzanian society for the last 25
years” (Palmer 2000:3). The new land act in this way builds both upon the Land Tenure (Village Settlements) Act of 1965 and the Local Government (District Authorities) Act from 1982 (Kauzeni, Shehambo, & Juma 1998). Under the Tanzanian land legislation, each village elects a village government that constitutes the land authority at the local level. Customary rights are thus acknowledged as legitimate and registerable but exist alongside non-traditional elected village authorities. Similar empowerment of the local level is uncommon, making Tanzania stand out as a country where the community is given far-going authority and autonomy over land matters. In addition, the legislation recognizes women’s equal rights to land, and several provisions seek explicitly to protect women from discrimination (Benschop 2002). The Village Land Act spells out the procedures for how village councils are to operate and how they are elected and empowered. Tenure administration is devolved to lower levels that are fully elected and accountable, in what is arguably a unique form of tenure decentralization (Palmer 2000; see also Alden Wily 2004; Alden Wily 2003; Bruce 1998a). In conclusion, in a comparative perspective the Tanzanian legislation clearly supports power-sharing mechanisms, and due to the far-going empowerment of the local level, the state’s grabbing hand is in shackles.

Kenya

Similar to Tanzania, with 61 percent of the population having access to safe water, Kenya belongs to the group of countries found in the middle of the ranking in terms of water coverage.

History of Play

The government that took office after Daniel arap Moi’s reign inherited a highly corrupt and inefficient land administration system. Under the former president, the informal economy in general and informal housing in particular expanded rapidly. When it comes to land tenure, Kenya is in many respects an interesting case since it at an early stage embarked on a privatization scheme and regarded individual titles as the way ahead. The Swynnerton Plan of 1954 followed the theoretical assumptions that such a system increases efficiency and investments. Private tenure was also a response to the Mau Mau rebellion in 1953, and registering land titles was seen as a way to create a stable indigenous land holding class (Knox 1998b). The privatization scheme was, however, largely a top-down affair and involved the displacement of many people. It also turned a large number of people into squatters (Wanjala 2004). As displaced people in turn moved to settle elsewhere, the titling program indirectly created new land management problems also in areas where there were no problems before. Existing kinship-based customary systems were in this way dissolved by the state-driven privatization scheme, yet the administrative infrastructure necessary
for taking on such a program was often lacking. In the 1990s, the conflicts over land continued – often triggered by the fact that the government granted land rights to areas where people already resided (Walker 2002). In addition, the land registration program was costly for the individual farmer. In order to register a parcel of land the smallholder not only had to pay a registration fee (and usually also a fee under the table), they also had to make a costly journey to the district capital (Knox 1998b).

The tenure track-record was recently addressed by the Commission of Inquiry into the Illegal/Irregular Allocation of Public Land, instigated on initiative from the government that took office in 2002 and comprising an investigation into the land policies of the past. The commission states frankly that tenure has suffered from high insecurity (Southall 2005; Adams 2003). In the informal settlements of Nairobi and other larger cities, bulldozers have been a common sight. The Center on Housing Rights and Evictions (COHRE) reports of numerous forced evictions and demolitions throughout the 1990s. The residents had in many cases bought their rights to the land from local officials, but a higher bid later on could easily convince the local officials that the inhabitants were squatters after all, and that they consequently should be removed. In most cases of forced eviction, the government has thus either played an active part or at best done little to prevent the demolitions. Few if any of the residents have been properly re-housed (COHRE 2006).

Yet, the non-cooperative track-record seemed to have been broken in 1999 when a land policy review was initiated. In the process of improving the management of local authorities, there has been a task force undertaking public sessions throughout the country, and the Kenya Land Alliance has gained some influence (Odhiambo 2004; Adams 2003; Benschop 2002). COHRE reports that while previous governments engaged in evictions, the government in office since 2002 at first seemed to accept the settlements. There was also talk about upgrading and appropriate resettlement, and a round of public hearings had started already in 2001. Yet, at the local level, residents have very limited opportunities to participate in their council’s development except through representation by their councilors. However, the councilors rarely hold consultative forums and participation is generally considered to be low (COHRE 2006; COHRE 2002; UN-Habitat 2002a).133

The new National Rainbow Coalition government declared the ambition to reclaim state land that had been improperly allocated during Moi’s reign. It also embarked on a more cooperative line of action when they stopped a planned eviction of a large number of people in the Kibera settlement in Nairobi. Nevertheless, the general threat of eviction is still around, and the new government has acted ambivalently on numerous

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133 In the words of UN-Habitat: “Citizens’ participation in decision making in the local authorities has been elusive in Kenya, except during elections when citizens participate in electing their councillors. Once this is done they are never consulted” (UN-Habitat 2002a:44).
occasions (COHRE 2006). The government’s response to the numerous squatters has predominantly pended from neglect to repression in a generally and comparatively non-cooperative history of play.

_Tying the Grabbing Hand_

The land-titling policy initiated by the Swynnerton Plan was incorporated into law after independence and is by and large still in place. The system involves district level arbitration boards, adjudication committees, and a possibility of appealing to the Minister of Lands. In 1963, the constitution provided protection from compulsory acquisition by the state, except for public purposes and with the payment of compensation. Yet, the constitutional safeguards of the independence constitution were sidestepped already at an early stage. President Daniel arap Moi continued on this track when he took office in 1978 and predominantly ruled by decree. The constitution was gradually amended and the president in this way took supremacy over all other organs of the state; in 1982 a constitutional amendment made Kenya a de jure one-party state. However, a multiparty election was held in 1992 and since then a constitutional review has been underway, but land administration nevertheless still suffers heavily from corruption inherited from previous governments (Southall 2005; Adams 2003; Benschop 2002).

Land in Kenya is divided into state land, trust land, and private land. Government land is vested in the president as regulated in the State Land Act, which is administered by the Commissioner of Land. The commissioner has the power to evict people occupying state land and has done so repeatedly. Demolition and forced removals are widespread — yet those with sufficient political patronage are usually left in relative peace (Wanjala 2004).

Trust land is regulated by the constitution, the Trust Land Act, the Land Consolidation Act, the Land Adjudication Act, and the Land (Group Representatives) Act. Private land holdings in turn are primarily regulated by the Registered Land Act. The independence constitution reinstated much of the colonial structure of local government, and Kenya is divided into provinces, districts, and subdivisions of the districts (Benschop 2002). The system has however been highly centralized, and political corruption and tribal favoritism from the government has aggravated ethnic conflicts over land matters (Bruce et al. 1998b; Knox 1998b).

The Kenyan system of local government consists of the Ministry of Local Government and District Local Government Offices as well as local authorities that derive their powers and functions from the Local Government Act, Chapter 265 of the Laws of Kenya. The local authorities are semi-autonomous legal entities with administrative and legal powers delegated from the central government. However, the central government still exercises its powers over lower levels of government in a number of
ways: the financial base of any local authority is dependent on revenue sources, which by and large are determined at the central government level, and senior staff appointments are determined by the Public Service Commission through the Ministry of Local Government. The Minister for Local Governments has far-going powers over land and local authorities. Taken together, the general conclusion is that the Kenyan local government system is weak and leaves a lot to be desired in terms of true devolution of powers (Adams 2003; Benschop 2002). The operations of local authorities are heavily regulated by the central government through the Ministry of Local Government, so while the government system devolves powers to lower levels, the manner in which this power is exercised is strictly controlled and clearly limits what local authorities can do. Although semi-autonomous and sometimes efficient local government bodies do exist, the central government has indeed by and large been hostile to local authority and community-based solutions (UN-Habitat 2002a; Okoth-Ogendo 2000).

The Commission of Inquiry mentioned above concludes that the practice of illegal land allocation was widespread during the 1980s and 1990s. In many cases it has been the officials and institutions trusted with the responsibility to administer land that in fact have been the most active agents of land grabbing. Land has been a constituent part of the system of grand corruption and has been used to reward political support – for example most illegal land allocations occurred shortly after the elections in 1992, 1997, and 2002. There was also widespread abuse from both the former presidents and their land commissioners, who often made grants to land without any tribute to legal procedures. Land grabbing was also a constituent part of land allocations at the local level: “The corruption within central government has been replicated at the local level through the activities and omissions of county and municipal councilors” (Southall 2005; see also Adams 2003; Bruce et al. 1998b).

In conclusion, in the mid 1950s Kenya embarked on an aggressive land-titling program, which has attracted a lot of attention since it was one of the first of its kind, and also since it followed the theoretical recommendations from researchers and donors. The jury was out for quite some time, but today the privatization scheme is largely regarded to have been a failure (Bruce 2000; Platteau 2000; Quan 2000b; Bruce et al. 1998b). This is, however, much due to the fact that the state has not fulfilled its obligations of keeping its grabbing hand off the land. Citizens have not had any coordination device and the grabbing hand has in fact by and large grabbed whatever it has had within reach. Although the government is supposed to hold public land in trust for all people of Kenya, and local authorities are supposed to hold land in trust for the residents in the area, the land tenure system has clearly suffered from abuse, land grabbing, and a malfunctioning policy framework (Benschop 2002). In sum, the current land situation in Kenya can be characterized by gender discrimination, inaccurate
land registries, and landlessness accompanied by swelling urban populations (Knox 1998b). Taken together, the grabbing hand remains comparatively untied.

**Liberia**

Although 61 percent of the Liberian population have access to safe water, progress has been slow since 1990 when the water coverage level was 55 percent.

**History of Play**

The foundations of Liberia’s land policy are to be found in the freehold system introduced when Liberia was created as a state by repatriated ex-slaves in the 19th century. Land was purchased from the chiefs occupying the region, and the Americo-Liberians soon expanded their land holdings. The freehold system seriously challenged the existing customary practices and the Americo-Liberians in turn embarked on a process of repressive indirect rule and hut-taxes similar to the other colonial powers in the region (Knox 1998c).

Freehold is still a dominant tenure category in present day Liberia, the other categories being tribal trust (reserves) and state land. Most indigenous groups (93 percent of the population) live under customary systems while the part of the population with Americo-Liberian roots predominantly occupy the coastal land under freehold tenure. Although the law recognizes community occupation of land, much land previously under community control has been granted to foreign companies (mostly rubber plantations or mining companies). People occupying customary land not being under cultivation or not protected by deeds have thus been removed. The Registered Land Law from 1974 was an effort to formalize land holdings, but in fact had little impact and was never fully implemented (Knox 1998c).

Protection against eviction has generally been weak also in recent years. COHRE reports that the government has carried out a number of forced evictions in the capital Monrovia. Near the presidential election in 2000, thousands of people are reported to have been evicted. The government is, however, not the only actor involved in land confiscation and forced evictions; such activities are in fact part of a more widespread competition for control and power among private agents as well. It is estimated that 110,000 displaced individuals have now returned to their home areas, although the land they once occupied is likely to have been taken over by others (COHRE 2006; COHRE 2002).

Informal settlements grew rapidly with the crisis during the 1990s, and informal housing now provides more than 70 percent of the national housing stock. Since the outburst of the civil war in 1990 and the subsequent state of virtual anarchy, the citizens of Liberia have suffered
greatly. Policies and response mechanisms have by and large been inadequate, and the mushrooming of informal and unplanned settlements has emerged without the granting of legal tenure status. The UN-Habitat concludes that, “Only concerted efforts to achieve structural and institutional changes in land policies, urban land sale, taxation, management etc. that target the poor can reverse slum formation” (UN-Habitat 2006:4). Yet, tenure issues have largely been unattended and informal settlers are facing a constant threat of eviction. There is thus great demand for legal measures to secure citizen landholdings. However, authorities generally give scant attention to the upgrading of human settlements, and there is clearly a need to formulate and implement a national land and housing policy since the lack thereof has resulted in a proliferation of informal settlements. There is also a need to monitor and supervise tenure issues more closely since municipal authorities in some cases have granted property rights to squatters without legal basis. The city mayors for example habitually issue property rights to persons wishing to develop a specific plot of land, but when the government wants to develop such areas, all inhabitants must relocate. In addition, the construction of permanent structures is prohibited and multiple land sales abound due to corruption and lack of effective land management. Furthermore, there is a lack of an appropriate forum to coordinate decision-making and there is consequently a number of overlapping functions among key institutions. The informal sector is neither recognized nor supported and the government rarely honors promises to protect the rights of squatters (UN-Habitat 2006).

There is also a need for a more consultative approach. Although some community-based organizations do exist, their participation is limited and often depends on the good will of the local politicians. This has led to a widespread feeling of apathy and hence limited the involvement of citizens in local and national dealings (UN-Habitat 2006).

Taken together, tenure policies have been unclear and there has been no effort to engage in any consultative or participatory process of upgrading. Although the repressive policies of the past were slowed in the 1980s when the state stopped granting concessions on tribal land, the tenure track-record has in a comparative perspective not been cooperative.

*Tying the Grabbing Hand*

Under the customary system, chiefs or elders are in control of land allocation. The allocated rights are typically use rights rather than full ownership rights. Large land areas previously under customary control have, however, been appropriated by the government in order to give way for rubber and timber production. Challenges to the customary practices thus mainly come from the state and from corporate interests rather than from the privatized tenure of other citizens. In addition, in Liberia, there are also uncertainties when it comes to how customary systems have survived the
war; the communities upon which those systems rested have in many cases collapsed due to forced resettlement and the large number of displaced people (Knox 1998c).

When it comes to the organization of the political system, Liberia is divided into fifteen major political entities called counties, followed by cities, urban centers, chiefdoms, and townships. However, although these lower levels do exist on paper, Liberia is generally not considered to be a decentralized state. On the contrary, there is a highly centralized decision-making structure, the appointing power of the president covers both national and local governments and all important decisions are referred to central authorities. The Ministry of Planning and Economic Affairs coordinates the development plans of the other ministries and public agencies in a process that is implemented top-down and that does not include any lower-level bottom-up planning. Local authorities fall under the supervision of the Ministry of Internal Affairs, and although lower-level bodies have some responsibility for land sales, overall planning is centralized with the Ministry of Public Works (UN-Habitat 2006).

When it comes to the devolution of power there is a Governance Reform Commission in place, and the concepts of decentralization, good governance, transparency, and accountability have actually taken some root in Liberia. Yet, lower-level authorities more often than not suffer from lack of capacities and from interference from the central level. Decision-making is still centralized and although there are some features of deconcentration in local areas, there is by no means any true devolution of power. The UN-Habitat for example concludes that in Liberia, “Centralised decision making marginalizes participation at the local level and concomitantly undermines ownership and capacity building efforts. To reverse this trend, decentralization, strong commitments to institutional restructuring and reforms, transparency, and accountability must underscore actions across all governance levels. City dwellers urgently need improvement in their living standards which must begin with ensuring effective planning, coordination etc.” (UN-Habitat 2006:4).

While communities are allowed to occupy land, customary areas have nevertheless been declared to be the property of the state. This has in turn spurred rebellions among indigenous groups. Yet, all land management functions are still vested in the state. For example, the state must approve all land sales (Knox 1998c). In conclusion, the grabbing hand has been rather active and land not being continually cultivated runs the risk of being appropriated by the state. Hence, in Liberia, there are inadequate power-sharing mechanisms in place, and the state has largely been unconstrained when it comes to land management.
CHAPTER 5

**Zambia**

In Zambia, 42 percent of the population live without access to drinking water. Since 1990, the improvement has been modest and the water coverage level has increased by only 8 percentage points. This places Zambia far from achieving the MDG target of reducing the proportion of people without access to water by 50 percent.

**History of Play**

In Zambia, all land was nationalized at the time of independence. The Land Conversions of Titles Act was passed in 1975 and extinguished all freehold rights. President Kaunda’s philosophy was that land should be taken out of the hands of “inhuman exploiters”, and according to Zambian law adopted at this time, land was stipulated to have no monetary value. Following independence, the Kaunda regime also maintained many aspects of indirect rule and used the traditional authorities as an instrument to control land use and allocation (UN-Habitat 2005c; Subramanian 1998d).

The copper boom that followed independence made Zambia’s cities develop quickly, albeit in an unplanned manner. Legal tenure and the provision of housing were slow to develop, and the housing, health, and environmental conditions in informal settlements are still generally extremely poor (World Bank 2002d). The MMD government that took office in 1991 tried to break former policies and instead embarked on a market-driven land reform, but land policies have been vague and full of conflicts on the ground – especially in customary areas (Chinene et al. 1998). Consequently, elites at various levels of the government have in many cases been able to secure private titles on customary land while a majority of the population have been without benefits from the land reform (Brown 2005; Subramanian 1998d).

A land reform was in motion in 1993-1994 with support from the Land Tenure Center and USAID. However, the recommendations ended up on the shelf (UN-Habitat 2005c). Instead, the Land Law now operating was passed in 1995, following a national conference on land policy and legal reform and a divisive national debate where civil society and traditional authorities opposed the proposed law (Brown 2005). Nevertheless, the government quickly made the proposal a law, but due to far going controversy, the actual rate of implementation has been slow. At any rate, with the adoption of the new law, the previous land act was abolished, and land sales became allowed. Moreover, the categories of reserve and trust land were merged into a new category simply called customary areas. In summary, the MMD government did plan to liberalize the economy and recognized the need for widespread land reform, but they faced strong resistance from traditional authorities and civil society, making implementation of the new land laws difficult.
Regarding consultation, the Ministry of Land initiated a countrywide land policy review consultation process in 2001. However, the consultations are widely held not to sufficiently facilitate the participation of the poor, women, youth, and other disadvantaged groups who largely depend on land for their livelihoods (Mbinji 2005). That the involvement of communities is important is now acknowledged to a larger extent than before, although there appears to be no consensus on how to make this process work in practice. Furthermore, the current upgrading process pays little attention to tenure issues but does state that for example operation and maintenance of infrastructure are responsibilities of the beneficiary community. Currently, a new land policy is being drafted, but consultation is limited once again even though the Zambia Land Alliance has gained some influence over the process (World Bank 2002d).

Taken together, the market-driven land reform has by and large involved a privatization of land holdings, but has also produced confusion and rendered elite capture of the conversion process possible (Brown 2005; Chinene et al. 1998). While legislation regulating the use and allocation of land can indeed be found in for example the Agricultural Lands Act, Common Leasehold Schemes, The Housing (Statutory and Improvement Areas) Act, The Lands Act, and the Town and Country Planning Act, the institutions involved lack coordination and the various ministries have unclear roles and responsibilities (UN-Habitat 2005c). However, the Zambian Housing (Statutory and Improvement Areas) Act in fact represents an innovative legal framework for regularization. It involves a local registry but unfortunately there is no way in which to upgrade a registered right from the local registry to the “mainstream registry” (UN-Habitat 2005c:15).134 What is more, the lack of consultation makes most people unaware of the new laws. The large number of evictions also highlights the limited protection offered by the current framework. In Lusaka and other cities, armed police have undertaken several evictions in recent years, and the constitution offers neither protection against such practices nor any rights to squatters (UN-Habitat 2005c).

Yet, when it comes to legalizing informal settlements, both the central and local governments recognize the importance of regularization and there appears to be a sufficient legislative framework in place. More than the above, important legislation includes the following: the Local Government Act of 1991 (provides for Council By-Laws); the Public Health Act of 1930 (provides Public Health Regulations but is over-ruled by the Housing Act CAP441); the Town and Country Planning Act 1962, Cap 475 (provides for land use planning and standards, development plans, sub-division of land, and building regulations); the Land Survey Act (provides for the control and registration of cadastral information); the Land Acquisition Act (provides

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134 Namibia has a similar framework, but there upgrading is possible.
for compulsory acquisition with compensation or in the public interest); the Building Societies Act (provides for the financing of housing); the Employment Act (provides for linking employment with the provision of housing); the Rent Act (provides for the control of rent); and the Rating Act (provides for municipal rating for local government) (World Bank 2002d). However, much of the existing legislation needs to be updated and streamlined to ensure that informal settlements are dealt with coherently. The 1975 Housing (Statutory and Improvement Areas) Act, Cap 441, for example severely restricts private sector participation in the construction and management of housing. More than providing the legal basis for control and improvement of housing, it also regulates the issuance of certificates of title and occupancy licenses. Yet, amendments are needed to better address the unplanned settlement situation and make the market-oriented housing delivery mechanisms work as intended. The Land (Conservation of Titles) Act, Cap 289, is also held forward as requiring a review that could stimulate more efficient land management (World Bank 2002d).

In 1996, a new national housing policy with high ambitions when it comes to the delivery of land and housing was launched. In practice, however, it seems like few cooperative actions have been undertaken. A majority of informal settlements are located on public land, and for these to be legalized they must be registered and declared by the national government through the Ministry of Local Government and Housing. However, in order to obtain tenure on public land, the settlement must have been located on the land since before 1974, and a majority of the shelters must be constructed out of permanent building materials. If these requirements are fulfilled, the settlement can be declared an improvement area and renewable 30-year occupancy rights can be issued (UN-Habitat 2007b). Yet, many settlements do not fulfill these conditions and there is still a lack of affordable housing and granting of secure tenure to informal dwellers. In conclusion, the tenure track-record has been ambiguous and largely non-cooperative.

*Tying the Grabbing Hand*

A striking feature of Zambian land reform is that land management is still highly centralized. The government is generally unsupportive of traditional authorities even though they still exercise considerable influence on the ground (Marongwe 2004; Chinene et al. 1998). Land holders therefore must relate to two separate systems of land tenure: a centralized state land policy and the traditional system dictated by custom on the community level. Although customary holdings can be converted into private leaseholds, few smallholders are aware of this possibility. Elites and individuals in strategic positions have however been able to lay their hands on large tracts of valuable land (Subramanian 1998d). Importantly, conversions of customary land have to go through traditional authorities and can therefore potentially
be a source of revenue for chiefs – in some cases apparently not very interested in protecting the land of the smallholders living in their community (Brown 2005).

The notion that land had no monetary value together with the fact that land was allocated administratively clearly created a system with ample opportunities for corruption that still today has repercussions on the land tenure system (Brown 2005; Bruce et al. 1998a). The dual system of state and customary law for example tends to create great uncertainty, and chiefs and government officials have repeatedly allocated land even though the land was already occupied. Taken together, there are few efforts to effectively complement the traditional authorities with a formal decentralized system (UN-Habitat 2005c; Alden Wily 2004).

The formal state system, however, also poses a serious threat to individual occupation. Article 16 in the constitution makes compulsory acquisition without adequate compensation illegal, but also includes a number of exceptions that virtually immunize state land policies from constitutional attack. The exceptions thereby also effectively weaken the rights of informal dwellers or smallholders in general (UN-Habitat 2005c).

Taken together, decentralization is clearly not a key component of land reform in Zambia, and the existing 72 District Councils are not empowered with any substantial functions (technically they are given the authority to administer conversions after approval from the chiefs, but both these lower levels can easily be bypassed by the central administration). The current Draft National Land Policy of 2002 does not change this division of labor, and it is consequently not much different from other drafts put forward during the 1990s. The main objective seems to be to improve the functioning of the centralized and state-led land administration, while devolving land management responsibilities is not emphasized. The 1995 Land Act did, however, create a land tribunal which was supposed to handle land allocation and disputes in a simple and effective way, but the tribunal is still regarded to be highly technical and has been largely inaccessible for disadvantaged groups. Moreover, the land tribunal is based in Lusaka and has little reach and jurisdiction in rural areas (UN-Habitat 2005c). The intention of the land tribunal was to protect the interests of smallholders, but this has generally been ineffective and costly, and few know of its existence (Brown 2005). Although the 1991 Local Government Act attempted to reverse centralization by giving the country’s 22 city and municipal authorities greater autonomy and responsibilities, the long experience of top-down central planning has hampered local level initiatives and investments (World Bank 2002d).

Altogether, this makes Zambia a country where institutional decentralization and the consequent constraints on the state are weak. One observer for example concludes that: “The half-hearted and contradictory character of bureaucratic decentralisation in Zambia has created confusion,
conflict, and corruption in the administration of land at the district level” (Brown 2005:100). In conclusion, the grabbing hand remains untied.

**Mozambique**

Since the prolonged civil war ended in 1992, progress in water coverage has been slow and only 43 percent of the population today have access to drinking water. This clearly places Mozambique on the lower half of the sub-Saharan African country ranking.

**History of Play**

One consequence of the civil war that followed independence in 1979 was the displacement of millions of people who were forced to leave their homes and home regions. Today, land administration in Mozambique is generally regarded to experience a number of overlapping and conflicting land claims, and the insecurity generated by the absolutely non-cooperative tenure track-record of the war governments remains. Although the war ended in 1992 and opened the way for a reform of the constitution, land policies were not a top priority for the government in the devastated economy that followed. The major laws governing land management at the end of the war were the 1979 Land Law and the 1987 Land Law Regulations. The lack of an effective land policy in the early 1990s, however, implied that the threat of eviction was widespread (Tanner 2002; Kloek-Jenson 1998).

The earlier tenure track-record in Mozambique involves a nationalization of all land as the government embarked on a socialist development path after gaining independence. Under the resulting land policy, neither customary rights nor private titles were allowed. Instead, all land was vested in the state; large-scale farms were favored and villagization programs initiated (Tanner 2002; Lorgen 1999). In this process, the peasant sector was overlooked and limited resources were transferred to improve human settlements. In fact, the police were frequently deployed in the compulsory expulsion of people occupying land without title (UN-Habitat 2005a; Quadros 2003). Even after the reformation of land administration and management in the 1990s, land can still not be sold, alienated, or mortgaged (Marongwe 2004; Quadros 2003). Yet, the 1997 Land Legislation is in some respect innovative as it recognizes both individual and collective tenure rights. It also builds on customary norms and practices, and rights over land can be acquired through occupation in good faith for at least ten years (Chilundo et al. 2005; Quadros 2003). Moreover, in statutory land legislation, women and men enjoy the same rights to land. In customary areas, however, men are regarded to be the head of family and thus the custodian of land and related resources. In the event of a husband’s death, women thus face problems in securing their rights to land (IIED 2006).
All in all, the new policy focus is distinctively different from before, when indigenous tenure practices were regarded archaic and pre-modern remnants of the exploitative colonial past (Kloeck-Jenson 1998). However, even though the government in some respect has tried to embark on a cooperative track, insecurity remains an integral part of everyday life for urban dwellers and rural smallholders alike. There are for example apparent conflicts among the different layers of government as national, provincial, and district level government in some cases all grant property rights to the same piece of land (Quadros 2003). As a result, many smallholders are evicted by more resourceful actors with the right contacts in the right layers of government. While it is true that the new land law promises clarity, the mechanisms for resolving conflicts and registering land rights are still unclear. Land administration in general is thus characterized by uncertainty regarding long-term tenure rights (Kloeck-Jenson 1998; UN-Habitat 2005a; Bruce et al. 1998a). The provision in Article 12 of the 1997 Mozambiquan Land Law, however, provides for legal acquisition of land after ten years of occupation in good faith, although there is continued uncertainty over the application and enforcement of this law. Moreover, the constitution makes no reference to protection against eviction, and housing policies are absent or overly bureaucratic: “The process is long and protracted. In Maputo, as many as 103 administrative steps are involved and applications take several years” (UN-Habitat 2005a:55). The existing institutional framework in cities and urban centers is considered outdated and in need of reform (Malauene et al. 2005; Quadros 2003).

In contrast, consultation has been extensive and thorough throughout the reform process (UN-Habitat 2005a; Alden Wily 2003). A land conference was held in 1992 with the help of the Land Tenure Center in Wisconsin. Furthermore, the Lands Commission established by the government produced the National Land Policy in 1995, and the Draft Land Law was finalized in the following year. The Draft Land Law was circulated to over 200 different stakeholders, and working teams traveled the country. Another land conference was held in 1996 with participants from a broad range of interests, resulting in a working document that in turn formed the basis for the subsequent new Land Law in 1997 (Palmer 2000; Kloeck-Jenson 1998). Before adopting the law, the working paper was discussed in a number of public sessions and by parliamentary committees. After the law was passed, a national campaign was launched with the purpose of educating farmers and grassroots around the country. Given this consultative process, Mozambique’s land reform is widely celebrated for applying one of the most genuine participatory processes in the region (Quadros 2003; Tanner 2002; Mbaya 2000). Yet, the level of consultation has generally been low in peri-urban areas, and the laws have not provided any protection against forced evictions; there are no safe procedures for land transfers and duplication of land is common practice. Taken together,
protection against eviction is still low and the tenure track-record is on a non-cooperative path even though a focus on consultation alone would qualify Mozambique’s history of play as cooperative.

*Tying the Grabbing Hand*

One of the most striking features of Mozambique’s admittedly highly consultative land reform is that it does not devolve any significant powers to lower level bodies. In Mozambique, all land is vested in the state, and decentralization has not been a key thrust of land management (Alden Wily 2003; see also Marongwe 2004; Quadros 2003). The Land Law does give individuals use rights and the law is in many respects innovative as it for example provides for registration of community rights and includes local practices and customs (Tanner 2002), but how communities are to be defined, and which rights they are to be given, is still unclear. The role of traditional authorities also needs to be clarified. The law does not provide much guidance on these issues, and as in many other countries it is far from certain that traditional authorities are legitimate and responsible representatives of the people living in the community. In fact, the recognition of traditional leaders has partly been conducted at the expense of extending elections to rural constituencies (Kyed & Buur 2006). There are thus no attempts to democratize customary land management in Mozambique, and women in particular have been shown to suffer when communities are idealized as homogenous conflict-free entities (UN-Habitat 2005a).

All in all, the Land Law recognizes three tenure types: occupation in good faith for at least ten years, occupation in accordance with customary norms, and formal authorization of submitted application. Yet, all these rights are restricted to use rights since all land is still owned by the state. The government can therefore without difficulty revoke the individual use rights and instead grant the rights to enterprises, development projects, and other purposes they find appropriate (UN-Habitat 2005a; Kloek-Jenson 1998).

When it comes to political decentralization, Mozambique is divided into ten provinces and 128 districts. Lower levels of formal government thus exist, but the power relation between central-, provincial-, district-, and local-level institutions is unclear. In general, land administration and control is still highly centralized (Alden Wily 2003; UN-Habitat 2001). Lower levels of government, however, occasionally set out to grant use rights to individuals or communities. As said before, a fundamental problem is consequently that the different levels of government simultaneously grant rights to the same piece of land. Naturally, such a land policy is unsatisfactory. Moreover, the unspecified responsibilities of the different layers of government open up for corruption and misuse. The simultaneous, but largely unconnected, introduction of new land laws and decentralization of government through the creation of 33 municipalities has created great
uncertainties. The land law regulations for example do not apply in the municipalities where municipalities consequently employ their own land allocation policies (UN-Habitat 2005a; Quadros 2003). The recent shift from state-led agricultural development to market-oriented policies has not been paralleled with reforms in land policy, and the formal land policy does not correspond to the practices on the ground. In fact, the maintenance of land policies designed for socialist aims has under increased commercial pressures produced a situation characterized by widespread corruption and large-scale land grabbing (Kloeck-Jenson 1998). Although the 1997 Land Law has the potential to prevent conflicts over land use, there is a need to clarify the procedures of land title transactions (Chilundo et al. 2005; Malauene et al. 2005; Quadros 2003).

The tenure rights of regular citizens are, however, said to be protected by the provision of consultation in the case of development projects or investments within their landholdings. Yet, negotiations with incoming investors have not been without problems; investors have in many cases bought off local leaders and got their required signatures on the consultation report in exchange for money or other benefits. Large-scale agriculture and timber companies have therefore often come into conflict with community members over land and natural resources (IIED 2006; Chilundo et al. 2005). The policies pursued have in this way by and large facilitated widespread land grabbing (Bruce et al. 1998a). Despite the Council of Ministers approving new land law regulations in 1998, detailing the procedures for land transactions, the role and rights of communities are unclear and subject to neglect by public sector administrative agencies (Quadros 2003; Tanner 2002).

In conclusion, land policy is centralized and fails to provide support for localized land administration. Decentralization and empowerment of local level institutions are weak and the role of traditional authorities is unclear. Given the large number of displaced people, there is also a problem of defining communities in general. Taken together, in Mozambique the grabbing hand is not constrained by power-sharing mechanisms or devolved land management responsibilities.

**Somalia**

In Somalia, only 29 percent of the population have access to safe water, and progress has been slow. The low water coverage level without a doubt places the country on the lower half of the sub-Saharan country ranking.

**History of Play**

If the prolonged conflict in Liberia is rooted in an unclear and conflicting land holding system, this is perhaps even more the case in Somalia where there is a history of expropriation of land and productive resources by the
state and its ruling elites (Subramanian 1998c; Besteman & Cassanelli 1996).

Taking one step back, the tenure track-record in Somalia starts with the Agricultural Land Law of 1975. This first land tenure legislation after independence transferred all land to the Somali state. The law dispossessed customary authorities of their property rights to land and instead gave control over land exclusively to the state. Customary practices or the views of the people were largely ignored when the Agricultural Land Law was drafted, and the existing customary systems were bypassed or undermined (Subramanian 1998c).

Moreover, the Agricultural Land Law was never strictly enforced and the various restrictions on land holdings could quite easily be circumvented. Many smallholders and pastoralists were displaced by the enlargement of state farms or by the practice of issuing statutory titles for land where people already resided. The formal titles introduced by the Agricultural Land Law may have been a way for the government to communicate its cooperative intentions, but, in practice, the sense of having secure land tenure existed only among the small percentage of the population owning superior parcels of land. In contrast, land tenure security for rural smallholders under the formal titling system was in fact low (Subramanian 1998c). Given the disintegrating state structures in Somalia, formal regulation of land tenure has gradually been replaced by informal structures based on customary systems. In addition, armed occupation and self-declared protection forces often take a toll on the produce of farmers (Marongwe & Palmer 2004a). Urban land ownership is perhaps even more in dispute as there is a growing pressure from people being driven off their agricultural land. There is also a pressure from Somalia’s diaspora population sending money home for house building. Moreover, local municipalities also frequently issue multiple deeds to the same plot of land and in the absence of a coherent development strategy, informal settlements have proliferated (UN-Habitat 2002b).

In a lack of functioning government structures, the private sector has to a large extent assumed land management responsibilities according to their own agenda. In addition, lack of plans for human settlements, and inadequate land registers, have produced a situation where land disputes are common. In the absence of public regulation, these disputes have repeatedly turned violent, and there is clearly a demand for reinstating public responsibility for land management – both for the public good and for the general security of the residents. However, the legal framework and forums for consultation and participation are still under development and a struggle for authority between municipalities and the Ministry of Public Works and Roads is underway (UN-Habitat 2002b). In conclusion, the lack of clear policies or protection against eviction renders Somalia’s tenure track-record comparatively non-cooperative.
**Tying the Grabbing Hand**

After the passing of the Agricultural Land Law, individuals were allowed to register smaller landholdings as state leaseholds under a system of usufruct rights. These rights are, however, highly insecure since the government can revoke such leaseholds if the land is not considered to be used productively, or if it is used for non-agricultural purposes. Private transactions are not allowed, and customary practices are not recognized by the formal system. Yet, customary systems still govern land use on the ground and since the statutory system has not been enforced, there are now a number of contradictory claims. In contrast, tenure is comparatively secure on customary land since those systems now partly are a response to the insecurity generated by the government’s policies. True, the state has expropriated customary land as well, but community-based systems are still in place. In fact, as the Somali state virtually has collapsed, such systems are basically the only systems around (Marongwe & Palmer 2004a).

The community-based systems are also a response to an unpredictable natural environment where collective land holding and scattering is a response to idiosyncratic risk. Yet, ultimately, land has been vulnerable to land grabbing by other private parties, local elites, and from the central government. In short, state control of land has consolidated governmental power over individual interests, and the rule from Mogadishu is generally considered to have been centralized, corrupt, and repressive (Subramanian 1998c). However, the Somaliland Transitional National Charter adopted in 1993 and the 1997 provisional constitution empowered the government to decentralize the state. There is thus constitutional support for decentralization of authority to the local level, although elements of the central government still aspire for greater control of local-level land management activities. While the Constitution of Somaliland calls for decentralization, there is thus a struggle over competencies between municipalities and the Ministry of Public Works and Roads. Implementation of a devolved management system is reportedly complicated and the chaotic land tenure situation has resulted in unduly appropriations of public property. Taken together, land management mechanisms in the form of local-level land registries or methods for dispute resolution are mostly missing or incomplete (UN-Habitat 2002b; see Besteman & Cassanelli 1996).

The grabbing hand has thus been relatively unconstrained even in modern times and incursions by the government and its officials have been widespread. Although the original intentions of the Land Law of 1975 might have been benign, its resulting insecurity still poses a great challenge to the future of communities and smallholders in Somalia. Since it eradicated the legitimacy of customary land tenure and made state leasehold title the only means of claiming land rights, the law tipped the balance of tenure claims in
favor of elites with privileged access to the mechanisms of registration (Subramanian 1998c).

In summary, the overall regulatory framework is poorly developed and there is no legal framework securing land tenure. Land laws and regulation of urban development and management is not yet issued. While a number of drafts do exist, the one preferred by the Ministry of Public Works and Roads calls for continued centralized master urban planning and land management control, evidently at odds with constitutional provisions for decentralization (UN-Habitat 2002b). In conclusion, the grabbing hand has been comparatively unconstrained in Somalia.

**Ethiopia**

Only 22 percent of the Ethiopian population have access to safe water and the situation is continually deteriorating. Since 1990 there have been no improvements in water coverage levels at all. In fact, water coverage levels have decreased in the last decade. Ethiopia in this way clearly stands out as a country where the prospects of reaching the MDG target of cutting the proportion of people without access to drinking water in half consequently are bleak.

**History of Play**

The Ethiopian government’s tenure track-record involves a nationalization of all land in 1974 when the Derg regime gained control after Emperor Haile Selassie’s rule (Kebede 2002). The egalitarian-minded government that took office set out to abolish the prevailing feudal system. The state, however, retained ultimate ownership and control over all land, and instead of granting citizens private title to land, the state gave them usufruct rights. These rights were derived from membership in a peasant association, and individuals therefore could neither sell the land nor dispose of the land as they wished. In some respect, the nationalization and creation of peasant organizations effectively addressed the previous inequities in land holding patterns, and more people began gaining access and usufruct rights to land (Adenew & Abdi 2005; Rahmato 1999; Subramanian 1998a). However, the villagization and forced relocations promoted by the Derg regime also caused conflicts with the inhabitants of the affected areas. In fact, the villagization program in Ethiopia is particularly noted for its high level of coercion and the high degree of family separation (Lorgen 1999). In addition, there was in general little room for citizen participation and consultation. For sure, the tenure legislation and policies in place in the 1970s and the 1980s improved equity, but continuous relocation and redistribution in favor of older members of the peasant associations reduced the security of land tenure and brought considerable uncertainties to land management (Nega, Adenew, & Gebre Sellasie 2003; Kebede 2002;
Joireman 2000). The policies of continuous rearrangement of land holdings in fact gave the individual farmers no idea how long they would be in possession of the land they occupied.

Moreover, since land holding derived from membership in a peasant organization, many people remained in rural areas despite a lack of livelihood opportunities and growing land scarcity, and Ethiopia today therefore has a higher proportion of people living in rural areas than most other African countries. The tenure situation in urban areas is also very uncertain: in an international comparison, Addis Ababa has one of the largest proportions of people living in informal settlements. Ethiopia is thus one of the least urbanized African nations but has one of the fastest urban growth rates in the world, and suffers from a severe housing shortage and lack of water infrastructure (UN-Habitat 2007a; Payne 1997).

For sure, housing shortages were experienced already under the Italian occupation in 1936-1941, but the situation continued to grow worse after the occupation ended. Although the development of human settlements was included in the government’s five-year plans during the 1960s, a comprehensive national housing and land policy was absent. The outspoken ambition during the 1960s was, however, to launch a large-scale, yet affordable, housing program and at the same time address the land holding systems in informal settlements. Yet, despite much being said on paper, the country saw slow progress when it came to improving human settlements (UN-Habitat 2007a). The land issue was in fact one of the driving forces behind the February 1974 revolution that overthrew the emperor. Under the revolutionary slogan land-to-the-tiller, all land was nationalized and rental accommodation was placed under the administration of neighborhood associations known as urban dwellers’ associations or kebeles. Yet, despite a number of cooperative official declarations, the response to informal settlements was in effect none else than bulldozing them. In fact, after the nationalization of all land, the shelter conditions deteriorated fast and the damage inflicted by the new land policies was so great that the Derg regime itself eventually tried to introduce some corrective measures before its downfall. As the housing situation grew worse when the private rental market was abolished – and nationalized land in effect became nobody’s property – virtually all areas experienced an uncontrolled growth of squatter units with extremely poor quality of the shelters (UN-Habitat 2007a).

With the new EPRDF government coming to power in 1991, Ethiopia saw a number of new policies and programs. Nevertheless, a national housing policy was never developed beyond statements of intent in national economic development plans and the like. In practice, the new government’s policy was consequently much like the Derg’s, and housing conditions and the quality of infrastructure in most residential neighborhoods remained in disrepair. Tenants in state-owned housing still
live under great insecurity since there are continued uncertainties over the future of their dwellings. Residents are for example unsure of whether the government is going to privatize the property, and of the legal status of their land holdings. For tenants in the private rental sector there is a lack of policies regulating the landlord-tenant relations, and without any duly signed meaningful lease or contractual agreements, either party can in fact terminate agreements at will without adequate notice. As a consequence, the threat of eviction is widespread. Although the poor are gradually being accepted as rightful inhabitants, this recognition has yet to find its way into policies, regulations, and procedures protecting the rights of informal dwellers (UN-Habitat 2007a; Adenew & Abdi 2005).

When it comes to consultation, the post-1991 period has seen more participation from local authorities and NGOs in upgrading programs. However, there is still excessive centralism and the state still holds the most important land management powers (UN-Habitat 2007a; Alden Wily 2003).

Taken together, the history of play in the 1970s and 1980s was thus clearly non-cooperative, and there has not been much change in the tenure track-record after that either (Nega, Adenew, & Gebre Sellasie 2003; Kebede 2002). However, the latest Ethiopian Constitution is federal and gives more freedom to the regions. On paper, it also favors devolved and participatory approaches, but in practice continues to severely restrict land sales and also facilitates the practice of redistributions to meet land needs (Alden Wily 2003). Still today, redistribution remains common, and land policies in many aspects remain largely unaltered, resulting in little security for smallholders. The 1992 Constitution promised a comprehensive new land law that has not yet materialized (Alden Wily 2000b). While there is indeed a Land Administration Policy from 1993 that distinguishes between rural and urban lands, there is no legal framework that protects citizens from evictions or forced removals. The government can dissolve peasant organizations and exclude whoever they wish from using a particular piece of land, and there is no law or courts from which residents can find support or protection (Rahmato 1999). Since 1997, the regional states are given some freedom to make their own laws but this system is not yet fully implemented (Alden Wily 2003; Admassie 1998). Given the lack of clear tenure policies and the widespread uncertainties created in land management, the reputation established by the Ethiopian government cannot be classified as trustworthy and cooperative. On the contrary, since the Ethiopian state in many cases has acted in absolute disregard of individual land holdings and fixed assets, the history of play is clearly non-cooperative.

\[135\] This makes it likely that the different states will develop their land policies at different rates and in different forms.
Tying the Grabbing Hand

It is clear that the creation of peasant associations in a way moved land management issues closer to the citizens. Yet, ultimate ownership was still vested in the state and the creation of peasant associations did in fact not substantially increase the decision-making powers of the citizens. In addition, the associations’ allocation of usufruct rights was not founded on democratic principles and many residents consequently still had no say on issues concerning land management (Nega, Adenew, & Gebre Sellasie 2003; Rahmato 1999).

After the fall of the Derg, concepts like indigenous tenure systems and participation have been used extensively, while the importance of securing tenure by actually sharing the decision-making powers have generally been overlooked (Adenew & Abdi 2005; Admassie 1998). The government still interferes with citizen rights to land and fixed assets, it still has overall decision-making powers over land management, and the current land policies do not support decentralized land administration (Alden Wily 2003). As a result, future usufruct rights to individual plots are insecure, and the future of common pool resources to which community members have unspecified collective rights is uncertain. In addition, there are uncertainties in respect to existing fixed assets on both privately-held plots and on common lands and there are also fears when it comes to future results of current actions; it is for example far from certain that individuals are to reap the future rewards from present investments (Deininger et al. 2003; Nega, Adenew, & Gebre Sellasie 2003; see also Kebede 2002; Admassie 1998).

The 1995 Federal Constitution vests all land in the state, and government statements propose a system of leaseholds from state-controlled land. However, the Federal Rural Land Law in Ethiopia (1997) gives the regions the power to administer land and there is potential for a participatory approach to land management (Adenew & Abdi 2005; Alden Wily 2003). The federal organization thus opens up for constructive experimentation, but is still regarded to give the state the ability to control the peasant associations and use land allocations as a way to enforce political conformity (Subramanian 1998a).

Most land registration is carried out through a decentralized system built on traditional measurements and involving elected local land committees. However, the level of confidence and trust people have in these systems varies considerably. Before 1991, land redistribution was a major cause of insecurity, and it still poses a threat of eviction. In addition, government land expropriation for commercial developments or infrastructure is still a real threat to the security of urban dwellers (IIED 2006).

For sure, the Derg revolution had a rhetoric supporting bottom-up approaches and the empowerment of the poor. In practice, however, the system was over-centralized and the Derg never went beyond rhetoric or
truly empowered the poor (Nega, Adenew, & Gebre Sellasie 2003). The new government of 1991 introduced a federal system and pushed forward a decentralization program based on regional states: Afar; Amhara; Benishangul; Gumuz; Gambela; Harari; Oromia; Somali; the Southern Nations, Nationalities and Peoples Region (SNNPR); and the Tigray national regional states, while Addis Ababa stayed under federal control. In effect, however, the concept of local democracy remains underdeveloped and the national government still controls many of the regional activities. The EPDRF government thus embarked on a decentralization program but various organizational and functional shortcomings inherited from the Derg and previous eras have continued to hold back the performance of local authorities (UN-Habitat 2007a).

In addition to the federal level, the current system consists of nine national regional states and two city administrations (Addis Ababa and Dire Dawa). At the lower levels, there is the district level which comprises a total of 66 zones. Each zone is divided into woredas (sub-districts which are considered to be the key local unit of elected government) and the next partly overlapping level consists of municipalities. The last tier of government closest to the grass-roots consists of peasant associations and urban dweller associations, so-called kebeles. According to the 1995 Constitution, each regional state government has a quasi-sovereign status and has been given considerable power and authority including a separate regional constitution, an elected regional assembly, its own public administration, and its own courts. The constitution thus apportions power and authority among the central government, the nine regional state governments, and the two autonomous administrative regions, while the status of zonal administrations imposed on woredas or kebeles is not clearly defined. The overall relationships between the federal government, regional states, and the woreda and municipality administrations are thus unclear. In practice, regional states are regarded to have assumed a rather paternalistic role over lower levels of the administration. Despite the decentralized organization, the very concept of local government and its stricture is not well conceived and developed in Ethiopia and the debate over the evolving political and legal framework of local governments in Ethiopia, “…has vividly revealed a predominant and strong tradition of centralization as well as a lack of an enabling environment for the development of effective local governments and therefore working democracy” (UN-Habitat 2002a:92).

Taken together, tenure in Ethiopia is comparatively uncertain and precarious. The government for example has plans to “voluntarily” resettle a large number of people once again (Marongwe & Palmer 2004a). Moreover, a recent survey shows that land holders expect their property rights to be arbitrarily violated. There are widespread expectations that land will be further redistributed: only 3.5 percent of the households believe that they can retain their current holding for over 20 years, while a significant majority
(76 percent) of all households do not feel secure enough to think that their claim towards their existing holding could last over five years (Ethiopian Economic Association and Ethiopian Economic Policy Research Institute 2002).

In conclusion, there is a lack of power-sharing mechanisms and of legal constraints on government authority in Ethiopia. The government has not given up any of its decision-making powers over land management and has thus failed to tie the grabbing hand. On the contrary, both individual and collective rights are subject to the unrestricted powers of the state, resulting in tenure that is far from secure. Consequently, subsistence farmers or urban dwellers are induced to apply short-term survival strategies.

**SUMMARY OF THE SMALL(ER)-N COMPARISON**

To reiterate, the overall question guiding the empirical investigation is whether the water coverage ranking corresponds to a ranking based on credible commitments. The case studies above account for to what extent the selected countries have established a credible commitment, i.e., adopted anti-eviction laws, refrained from forced evictions, engaged in a consultation process, and devolved land management responsibilities, and out of these case studies I construct the following ranking.
Figure 5.1. Credible commitments and water coverage levels

![Diagram showing the correlation between credible commitments and water coverage levels. The diagram lists countries in different bands of commitment strength (strong, high, weak, low) and water coverage ranking (Botswana, South Africa, Namibia, Ghana, Malawi, Tanzania, Mozambique, Kenya, Zambia, Liberia, Somalia, Ethiopia).]

Note: This figure depicts how the water coverage ranking corresponds to a ranking based on credible commitments. The ranking to the left-hand side is based on both history of play and tying the grabbing hand. Since the two credible commitment components go hand in hand and produce the same country rankings, I choose only to present a ranking based on the overall credible commitments.

Figure 5.1 shows that the water coverage ranking to a large extent corresponds to a ranking based on credible commitments. While particular country rankings should be interpreted cautiously, it is clear that the two rankings reveal similar patterns and correlate strongly (they have a correlation coefficient and Spearman’s rho of .88). Looking closer at the indicators on which the credible commitment ranking is based, it is clear

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136 This of course also applies to the water coverage ranking, and the ranking of countries along the quantitative indicators used in the following section. Similar to the credible commitment ranking, such rankings are in essence based on qualitative assessments where countries are given different scores depending on whether they fulfill certain criteria.
that in respect to **anti-eviction laws**, Botswana, South Africa, Namibia, Ghana, Malawi, and Tanzania have more comprehensive legislation in place than Kenya, Liberia, Zambia, Mozambique, Somalia, and Ethiopia.

The most distinct difference, however, is not to be found on paper, but in practice. When it comes to **forced evictions**, Kenya and Zambia have seen a number of informal settlements being destroyed and bulldozed in recent years. Liberia, Mozambique, and Somalia also suffer from the displacement of millions of people, in part due to prolonged civil strife, but also because of inconsistent land policies in turn underpinning the conflicts. A large number of people have been driven from their homes and been forced to settle elsewhere, while others have taken over the areas where they used to roam. In Ethiopia, the government’s policy of land redistribution has caused widespread tenure insecurity and a large number of citizens have relocated against their will. Tanzania and South Africa also have a history of forced relocations: in Tanzania’s case a state-led top-down villagization program and in South Africa’s case the apartheid segregation of people. Since then, Tanzania has clearly embarked on a more cooperative tenure track-record – especially in the 1990s – but in South Africa a large proportion of people in the former homelands still live under threat of eviction and the history of play cannot be classified as entirely cooperative. While South Africa’s land reform program does have high ambitions, tenure reform has by and large been overshadowed by the questions of land redistribution and restitution. Similar problems exist in Namibia, but have not been nearly as serious as in South Africa. Malawi on the other hand shows more similarities with Tanzania: the tenure policies and practice clearly started off on a non-cooperative path, but since the early 1990s there have been few reports of forced evictions, and the policy framework offering protection has been developed considerably. In two of the countries ranked highest in terms of credible commitments, Botswana and Ghana, evictions have been virtually non-existent. Both countries have had comparatively consistent and cooperative tenure policies, both on paper and in practice.

Yet, regarding **consultation**, the results are of a slightly more mixed nature. The country that stands out here is Mozambique, which despite a comparatively non-cooperative history of play when it comes to anti-eviction laws and forced evictions has undertaken a widespread and thorough consultation process. Furthermore, Tanzania is also generally thought of as one of the most positive example with a tenure reform process characterized by far-going consultation. Among the countries with lower water coverage levels, the consultation process has, however, been more limited.

When it comes to the second credible commitment mechanism, i.e., tying the grabbing hand through **devolving land management responsibilities**, Botswana stands out as the most distinct case. There, land
management powers have been incrementally transferred to lower level Land Boards. In this process, the power of traditional authorities has also been gradually removed and land has been put under more democratic governance. Yet, in what seems to be an attempt to achieve a balance between legality and historical legitimacy, traditional authorities are still recognized as important stakeholders. The Botswana Land Board example has been followed closely by Namibia, which also sets out to incorporate traditional authorities into more formal management structures. The role of traditional authorities is consistently an issue of concern – also for the countries with higher water coverage ranking. There have for example been controversies in Ghana, Malawi, and Tanzania concerning the roles and responsibilities of chiefs, although these countries seem to have been able to devolve land management power to lower levels without exposing the process to local level capture. In Tanzania, land management powers are devolved to the village level where elected officials decide over land use and land allocations. The Tanzanian legislation can clearly be criticized for being inaccessible; it seems to build on the assumption that more law is better law which in turn might pose problems when it comes to implementation. There are also some concerns regarding whether the central government still has too large of a say in land matters. In comparison to other African countries, however, Tanzania stands out as a country where the grabbing hand is tied.

Similar to Tanzania, post-independence land policies in Malawi aimed explicitly at eradicating customary tenure systems. Today, however, land management to a large extent involves traditional authorities, although their powers are by and large counterweighted by formal decision-making structures. Yet, as in Ghana, there is a risk in Malawi that the traditional authorities will misuse their powers. However, in a comparative perspective, the land management structures in place do seem to mix legality and legitimacy in a satisfactory way. Ghana in turn has comparatively strong customary authorities, but to some extent in fact simultaneously risks suffering from a too centralized land administration. Yet, the customary authorities have in recent years been complemented by more far-going devolution of democratic governance in general. In contrast, in South Africa, the role of traditional authorities is more seriously contested and land management at the local level has suffered from abuse and corruption. Taken together, South Africa cannot be said to have tied its grabbing hand to the same extent as the other countries with high water coverage levels. On the contrary, South Africa’s grabbing hand has more similarities with the countries lower ranked in terms of water coverage, which all suffer from a general centralization of land management responsibilities and from conflicting claims and controversies at the local level. Zambia and Mozambique stand out as the countries with the most centralized land management powers, and they both suffer from the unlawful issuance of
land rights from lower level authorities which creates a situation where the same plot of land faces claims from a multitude of agents. While Ethiopia has had a similar policy of state control of land, state-driven land redistribution has been more pervasive. Although Ethiopia is now slowly embarking on a decentralization process where the regional states are given more land management powers, the land still ultimately belongs to the state and the system remains under central governmental control. Liberia and Somalia have also been slow in implementing a decentralized system, and they have clearly suffered from a comparatively weak but still predatory central government. All in all, the grabbing hand in the countries unsuccessful in terms of water coverage remains comparatively untied and unconstrained.

If trying to distinguish the effect of the two credible commitment components, we clearly see that they go hand in hand and complement each other. It is also of interest to note that Tanzania and Malawi, which started off with a non-cooperative tenure track-record, have been able to turn their history of play into a cooperative one. Yet, this has been done in parallel with a gradual tying of the grabbing hand. South Africa, however, has not yet been able to establish a cooperative history of play, and here it is worth noting that the tying of the grabbing hand also lags behind. Taken together, South Africa is the only country where water coverage levels are high but where the government has not established an equally strong credible commitment not to violate citizen property rights; history of play and the government’s reputation are still not regarded to be entirely trustworthy due to forced relocations and the threat of eviction, and the devolution of land management powers still suffers from an unclear and undemocratic role played by traditional authorities.

In conclusion, it is clear that the variation in water coverage among the selected twelve countries largely corresponds to the variation in credible commitments. The only notable exceptions are South Africa, Mozambique, and to a lesser extent Liberia. South Africa drops from 2nd to 6th when comparing the water coverage ranking to the credible commitment ranking. Mozambique on the other hand moves up from 10th to 7th, while Liberia drops from 8th to 10th. All remaining countries either stay put or move up or down a single step on the ranking.

We now turn to the second part of the empirical investigation, i.e., a quantitative test of the credible commitment argument.
QUANTIFYING COMMITMENTS

Given the potential strength of large-n investigations, it is of great interest to see how the credible commitment argument withstands such a test. The primary aim here is thus to test the argument that credible commitments are associated with higher water coverage in a sample comprising all sub-Saharan African countries.

As said in Chapter 1, the traditional explanatory variables physical water availability, GDP growth, population growth, and privatization of water delivery are used as control variables. The other independent variables, acting as a proxy for a credible commitment, are (as were discussed at length in the previous chapter) the International Country Risk Guide quality of government index, the Fraser Institute property rights measure, and the World Bank political stability variable for history of play, and the World Bank voice and accountability measure and the Transparency International corruption perception index for estimating the effects of tying the grabbing hand. Although the indicators may overlap and indicators for tying the grabbing hand can be argued to also represent history of play and vice versa, the idea here is to test how reliably all these independent variables can predict the dependent variable, i.e., how well a model including the indicators representing the credible commitment argument and some control variables together can explain variation in water coverage. Before turning to the multivariate regression and the test of the model, let us look closer at the bivariate relationship between the respective credible commitment indicators and access to drinking water.

The figure below depicts the strong and positive relationship between access to drinking water and the International Country Risk Guide index (Pearson’s r: .60) in the sub-Saharan African sample.137

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137 Of course, correlation is not causation, but given the theoretical assumptions underpinning this investigation I find it plausible to assume that the independent variables come before the dependent variable in time and thus are to be considered as the cause of the variation in the dependent variable. In addition, all independent variables go back in time and are averaged from 1990 to 2004 or closest year available.
**Figure 5.2.** Bivariate relationship between water coverage and the ICRG quality of government index

Note: This figure depicts the relationship between water coverage and the ICRG quality of government index in a sample of sub-Saharan African countries. The association is positive with a Pearson’s $r$ of .60 ($N=32$).

The figure above clearly illustrates that Botswana, South Africa, and Namibia have among the highest water coverage levels on the continent (despite clearly being among the most arid countries), at the same time as they score high on the ICRG quality of government measure. At the other extreme we find Somalia and Democratic Republic of Congo. Similarly, Figure 5.3 demonstrates that the Fraser Institute property rights measure also shows a strong and positive association with water coverage (Pearson’s $r$. .56).
Figure 5.3. Bivariate relationship between water coverage and the Fraser Institute measure of legal structure and security of property rights

Note: This figure depicts the relationship between water coverage and the Fraser Institute measure of legal structure and security of property rights in a sample of sub-Saharan African countries. The association is positive with a Pearson’s $r$ of .56 (N=30).

Data availability now makes the sample slightly different in Figure 5.3, but once again it is Botswana, Namibia, and South Africa that stand out as successful (now accompanied by Mauritius who was not in the ICRG sample). Moving on, the figure below shows the relationship between the World Bank measure for political stability and water coverage.
The World Bank measure for grabbing score (Pwate) countries. Just like for the Pearson’s r of political stability:

Note: This figure depicts the relationship between water coverage and the World Bank measure of political stability in a sample of sub-Saharan African countries. The association is positive with a Pearson’s r of .42 (N=48).

We now have a larger sample, including all 48 sub-Saharan African countries. Just like for the other credible commitment variables depicted above, the relationship between political stability and access to drinking water is rather strong and positive – although it is weaker than in the above figures (Pearson’s r: .42). The graph is a clear indication that the higher the score on the political stability measure, the higher the water coverage.

Turning to the indicators argued to mainly represent tying the grabbing hand, we first consider the association between water coverage and the World Bank measure for voice and accountability.
**Figure 5.5.** Bivariate relationship between water coverage and the World Bank measure of voice and accountability

![Bivariate relationship between water coverage and the World Bank measure of voice and accountability](image)

**Note:** This figure depicts the relationship between water coverage and the World Bank measure of voice and accountability in a sample of sub-Saharan African countries. The association is positive with a Pearson’s r of .49 (N=48).

The bivariate association is rather strong and positive also in Figure 5.5 (Pearson’s r: .49). Mauritius and Somalia once again represent two extremes in the figure: Somalia has a low score on the World Bank measure as well as low water coverage levels whereas Mauritius shows up on the opposite end. Finally, we turn to the Transparency International corruption perception index and its relationship with water coverage levels.
Figure 5.6. Bivariate relationship between water coverage and the Transparency International corruption perception index

Note: This figure depicts the relationship between water coverage and the Transparency International corruption perception index in a sample of sub-Saharan African countries. The association is positive with a Pearson’s r of .69 (N=31).

This is in fact the variable with the strongest association with water coverage levels (Pearson’s r: .69). While the sample size is smaller than for the World Bank measures it is evident that the higher the corruption, the lower the water coverage levels – at least in this sub-sample.

Taken together, all the theoretically motivated credible commitment variables are positively correlated with water coverage levels. However, let us also look closer at how well our overall model explains variation in water coverage. To start with, Table 5.1 below presents summary statistics for the nine variables included in the regression.
Before including all the variables in the same model it is generally of interest to look at all the variables in a correlation matrix. Explanatory variables that are too correlated (multicollinearity) might be problematic for regression analysis. Yet, among the traditional explanatory variables accounted for in Chapter 1, this is clearly not a problem: Table 5.2 depicts a correlation matrix including the dependent variable and the control variables.

To be precise, a correlation matrix only reveals collinearity between two specific variables and not between three or more variables. Explanatory variables that are too correlated (multicollinearity) is commonly put forward as a big problem for regression analysis, but this is in fact quite often exaggerated. In fact, if the explanatory variables were not correlated at all you would not be interested in putting them into the same model to start with. Since the purpose of multiple regression analysis is to separate the effects of two or more related variables or to test the overall explanatory power of a model as is done here, the fact that the independent variables are correlated is more or less expected. They should, however, not be too highly correlated; if they show a perfect linear relationship it is for example not possible to separate their effects. Multicollinearity also makes it harder to get statistically significant results and the variables “eat away” the effects of each other (Englebert 2005; Allison 1999).
Table 5.2. The traditional explanatory variables in a correlation matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coverage 2004</th>
<th>Physical water availability</th>
<th>GDP growth</th>
<th>Population growth</th>
<th>Privatization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water coverage 2004</td>
<td>1.0000</td>
<td>-0.0401</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical water availability</td>
<td>-0.0647</td>
<td>-0.0033</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP growth</td>
<td>-0.3578</td>
<td>0.2401</td>
<td>0.0976</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Population growth</td>
<td>0.1326</td>
<td>0.0271</td>
<td>-0.0155</td>
<td>0.0040</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Note: The above table depicts bivariate correlations between the traditional explanatory variables introduced in Chapter 1 and those included in the regression analysis.

There are no strong correlations between the independent variables here: the strongest is a positive correlation between population growth and water availability with a Pearson’s r of .24. However, when turning to the credible commitment variables we get another picture.

Table 5.3. The commitment variables in a correlation matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>Water coverage 2004</th>
<th>ICRG 2003</th>
<th>Fraser Institute</th>
<th>Political stability</th>
<th>Voice and accountability</th>
<th>Transparency International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water coverage 2004</td>
<td>1.0000</td>
<td>0.7185</td>
<td>0.6369</td>
<td>0.3272</td>
<td>0.3518</td>
<td>0.7376</td>
</tr>
<tr>
<td>ICRG 2003</td>
<td></td>
<td>1.0000</td>
<td>0.7591</td>
<td>0.5866</td>
<td>0.6106</td>
<td>0.6815</td>
</tr>
<tr>
<td>Fraser Institute</td>
<td></td>
<td></td>
<td>1.0000</td>
<td>0.7242</td>
<td>0.7278</td>
<td>0.7704</td>
</tr>
<tr>
<td>Political stability</td>
<td></td>
<td></td>
<td></td>
<td>1.0000</td>
<td>0.8462</td>
<td>0.6453</td>
</tr>
<tr>
<td>Voice and accountability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.7754</td>
</tr>
<tr>
<td>Transparency International</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Note: The above table depicts bivariate correlations between the commitment variables included in the regression analysis.

Here the correlations are much stronger; the strongest among the independent variables being between the two World Bank measures of
political stability and voice and accountability. Researchers confronting high
collinearity between the independent variables are generally advised to
choose between two broad lines of action (Kennedy 2003). The first is to do
nothing. A general rule of thumb is that when the $R^2$ from the overall
regression is higher than the $R^2$ from any independent variable regressed on
the other independent variable in the regression, then this strategy can be
followed.\footnote{And this is in fact the case here. Moreover, there are of course
also a number of other statistical tests. The variance inflation factor values for
the included variables are for example also low here, suggesting that
multicollinearity might not be a problem.} However, if deciding to try to rectify
the perceived problem, then two of the most commonly suggested strategies are to
concentrate on a joint hypotheses test, or to construct an index.\footnote{There are also
a number of other potential remedies, see (Kennedy 2003).}

A joint hypotheses test, also called an F-test, means that it is the
overall model that is in focus rather than the separate variables. Given that
the overall aim is to test the credible commitment argument’s validity, this is
clearly what is of primary interest here anyway. The issue of concern is
simply to see if the variables chosen to represent credible commitments
together can explain variation in water coverage levels across sub-Saharan
African countries.

First, let us reiterate the results from the multivariate regression in
Chapter 1. The overall model containing the variables physical water
availability, GDP growth, population growth, and privatization showed a
weak and insignificant adjusted $R^2$ of .0675; i.e., the traditional explanatory
variables were by and large unable to explain the variation in water coverage
levels across the sub-Saharan African countries.

But to what extent do credible commitments by governments explain
variation in water coverage? Model 1 in Table 5.4 includes only the
traditional explanatory variables, Model 2 only the commitment variables,
and finally Model 3 accounts for all variables.
Table 5.4. Estimating the effects of credible commitments on water coverage levels

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical water</td>
<td>.0000207</td>
<td>--</td>
<td>.0000209</td>
</tr>
<tr>
<td>availability</td>
<td>(.0442176)</td>
<td>--</td>
<td>(.0643131)</td>
</tr>
<tr>
<td>GDP growth</td>
<td>-.1639614</td>
<td>--</td>
<td>-.1285237</td>
</tr>
<tr>
<td></td>
<td>(.0267485)</td>
<td>--</td>
<td>(-.0168346)</td>
</tr>
<tr>
<td>Population growth</td>
<td>-10.79317**</td>
<td>--</td>
<td>-3.342444</td>
</tr>
<tr>
<td></td>
<td>(-.3663686)</td>
<td>--</td>
<td>(-.0096524)</td>
</tr>
<tr>
<td>Privatization</td>
<td>5.507714</td>
<td>--</td>
<td>7.478246</td>
</tr>
<tr>
<td></td>
<td>(.132431)</td>
<td>--</td>
<td>(.2250105)</td>
</tr>
<tr>
<td>ICRG</td>
<td>--</td>
<td>60.20672**</td>
<td>51.03917***</td>
</tr>
<tr>
<td>Fraser Institute</td>
<td>--</td>
<td>1.877155</td>
<td>1.798448</td>
</tr>
<tr>
<td>Political stability</td>
<td>--</td>
<td>-5.665496</td>
<td>.975663</td>
</tr>
<tr>
<td></td>
<td>(.137144)</td>
<td>(.0269547)</td>
<td>(.0450824)</td>
</tr>
<tr>
<td>Voice and transparency</td>
<td>--</td>
<td>-16.72847**</td>
<td>-18.53691**</td>
</tr>
<tr>
<td>accountability</td>
<td>--</td>
<td>(-.0670133)</td>
<td>(-.7391212)</td>
</tr>
<tr>
<td>Transparency</td>
<td>--</td>
<td>12.44252*</td>
<td>13.58997*</td>
</tr>
<tr>
<td>International</td>
<td>--</td>
<td>(.857957)</td>
<td>(.9370779)</td>
</tr>
</tbody>
</table>

Note: OLS estimation with standardized betas in parentheses. Dependent variable: water coverage 2004. Independent variables averaged from 1990 to 2004 or closest year available. * significant at the .01 error level in a two-tailed test. ** significant at the .05 error level in a two-tailed test. *** significant at the .1 error level in a two-tailed test.

The first model, including only the traditional explanatory variables, explains very little of the variation in water coverage, and the overall model is insignificant.\(^{141}\) Yet the other two models have much higher explanatory power with an adjusted R\(^2\) of .7403 and .7422 respectively. This means that 74 percent of the variation in water coverage can be explained by the independent variables, i.e., the credible commitment argument.\(^{142}\) Hence, without a doubt, the credible commitment argument explains a large proportion of the variation in water coverage.\(^{143}\) Moreover, it is clear that

\(^{141}\) Yet, performing the regression in Model 1 with only those countries that are found in Model 3 raises adjusted R\(^2\) to .22 but the model is not significant at the .05 error level.

\(^{142}\) If the dependent variable water coverage 2004 is replaced by a variable measuring MDG satisfaction rate, i.e., how close the countries are of reaching the MDG of cutting the proportion of people without access to safe water in half, then R\(^2\) drops slightly but is still high at .65, and the model is significant.

\(^{143}\) It is, however, important to note that the sample size, N, is quite small: data is only available for 22 countries: Botswana, Cameroon, Congo, DRC, Gabon, Ghana, Cote d'Ivoire, Kenya, Madagascar,
the other traditional explanatory variables do not add any significant explanatory power. Importantly, Model 2 and Model 3 are both significant; the p-value of the F-test is well above the critical level which implies that the group of commitment variables predicts water coverage levels. To reiterate, the overall model is of primary interest here, but it is also clear that some of the independent variables have quite strong effects. The standardized betas are provided in parentheses, and it is easy to conclude that if Transparency International’s corruption variable (the one with the strongest and most significant effect) increases by one standard deviation, then the dependent variable increases by .937 standard deviations. Clear from the summary statistics in Table 5.1, the standard deviation of water coverage in the sample is 17, implying that a one standard deviation increase in the corruption variable (a 1.1 higher score on the 0-10 scale – higher score means lower corruption) would result in almost 16 percentage points higher water coverage!

Yet, when looking at the effects of the separate variables, there are also some puzzling results, which certainly can be seen as a call for caution when interpreting the regression outcome. The World Bank voice and accountability measure that in Table 5.2 was positively correlated with water coverage in the bivariate analyses now changes sign and in fact shows a negative effect. One plausible explanation for this is that the independent variables might be too strongly correlated, i.e., it is the too strong multicollinearity that makes the variables “eat away” at each other: when multicollinearity is too strong, although the overall equation is correct and efficient, the coefficients of the independent variables may overlap and be inaccurate (Englebert 2005). Admittedly, there can be a number of reasons for coefficients changing signs. However, multicollinearity is one probable reason here.145

To reiterate, one of the remedies for multicollinearity is to focus on the overall model’s explanatory power which I did above. Let us now also

Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Tanzania, Uganda, Zimbabwe, and Zambia.

144 The p-value associated with this F-value is used to answer the question of whether the independent variables accurately predict the dependent variable. The p-value is compared to the confidence level and, if it is smaller, one can conclude that the independent variables truthfully predict the dependent variable. This is thus an overall significance test of whether the independent variables together can predict the dependent variable.

145 Kennedy identifies sign changes as an overlooked issue in econometrics, and sets out to catalog the possible reasons for why it occurs. The explanations he comes up with are bad economic theory, omitted variables, high variance/multicollinearity, selection bias, data definitions, outliers, simultaneity, bad instruments, specification error, ceteris paribus confusion, interaction terms, regression to the mean, nonstationarity, common trends, functional form approximation, dynamic confusion, reversed measure, heteroskedasticity, and underestimated variances. Given the strongly correlated explanatory variables, high variance/multicollinearity is probably the most plausible in this case. More precisely, collinearity produces coefficients with high variances, i.e. coefficients whose sampling distributions are highly spread and may straddle zero. With high variance it is thus possible that a draw from the sampling distribution may produce a “wrong” sign. Other reasons for such high variance are a small sample size and minimal variation in the explanatory variables – both clearly applicable to the above regression (Kennedy 2002).
try the other way of dealing with multicollinearity; i.e., constructing an index of the variables at risk of being collinear. Statistical motivation for constructing an index out of the credible commitment variables is provided by a Cronbach alpha of \( .87 \),\(^{146}\) and the logic is hence that the variables that are collinear are grouped together to a single variable that alone can represent the collinear variables.\(^{147}\)

When constructing the index, I rescale all the variables to range from 0 to 1, and compose a new variable consisting of the countries’ average score from the ICRG, the Fraser Institute, the World Bank political stability and voice and accountability measures, and the Transparency International corruption perception index.\(^{148}\) Substituting the commitment variables with this commitment index produces the following results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical water availability</td>
<td>.0000886</td>
</tr>
<tr>
<td>GDP growth</td>
<td>-.1620625</td>
</tr>
<tr>
<td>Population growth</td>
<td>-.1066184</td>
</tr>
<tr>
<td>Privatization</td>
<td>3.003954</td>
</tr>
<tr>
<td>Commitment Index</td>
<td>58.9065**</td>
</tr>
<tr>
<td></td>
<td>(7.36749)</td>
</tr>
<tr>
<td>Prob&gt;F</td>
<td>.0017</td>
</tr>
<tr>
<td>Adj R(^2)</td>
<td>.5681</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
</tr>
</tbody>
</table>

**Note:** OLS estimation with standardized betas in parentheses. Dependent variable: water coverage 2004. Independent variables averaged from 1990 to 2004 or closest year available. ** significant at the .05 error level in a two-tailed test.

Adjusted R-squared is now lower than before but the overall model is still significant and explains close to 57 percent of the variation in water

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\(^{146}\) Cronbach’s Alpha is a coefficient that indicates to what extent a group of items focus on a single idea or construct, also called inter-item consistency. An alpha of .87 as obtained here is generally regarded as very high.

\(^{147}\) Of course, it is no use creating a composite variable if the variables included do not have any useful combined economic interpretation (Kennedy 2003).

\(^{148}\) It is in fact a weighted average; I choose to give the World Bank measures lesser weight since the two of them are so strongly correlated. The formula is \(.25 \times ICRG + .25 \times Fraser Institute + .25 \times TI + .125 \times political Stability + .125 \times voice and accountability.\)
coverage levels. Taken separately, the new variable, Commitment Index, also has a significant effect and for every standard deviation increase in this composite variable, water coverage increases with a .737 standard deviation; i.e., with 12.5 percentage points.\textsuperscript{149}

\section*{SUMMARY OF THE QUANTITATIVE INVESTIGATION}

The quantitative analysis makes clear that the credible commitment argument explains a large proportion of the variation in access to drinking water across the sub-Saharan African countries. In fact, a simple regression analysis including variables representing credible commitments (the World Bank political stability and voice and accountability measures, the ICRG quality of government index, the Fraser Institute measure on legal structure and security of property rights, and the Transparency International corruption perception index) as well as the control variables (physical water availability, GDP growth, population growth, and a dummy for privatizations) explains more than 74 percent of the variation in water coverage levels among all sub-Saharan African nations.\textsuperscript{150} Hence, the commitment model explains a lot of the variation in water coverage. Yet, I also encounter some of the potential problems with quantitative analysis discussed in Chapter 4. First of all, it is clear that data availability is indeed a challenge.\textsuperscript{151} Due to the small sample size, there is also a risk of having too many variables but too few countries, i.e., problems with the degrees of freedom, which makes it hard to get significant effects for the independent variables.\textsuperscript{152} However, that the variables are not significant does not mean that we cannot trust the findings.\textsuperscript{153} In this study, this is particularly true since the F-test of the overall model is of primary concern, and since this test shows significant results. Since I am interested in the composite effect of credible commitments and not necessarily in the effects of the commitment’s constituent parts, I can thus be relatively confident that

\textsuperscript{149} The bivariate correlation between the Commitment Index and water coverage is strong at .69.

\textsuperscript{150} For which data is available. What is more, the volatility of the independent variables might be an issue of concern. Yet, here I am satisfied with the indication that the overall model explains the variation in water coverage.

\textsuperscript{151} In the African sample it is in fact probably more than a challenge; it is perhaps more accurately described as a serious handicap since it is very likely that the African sample size is too small and thus unsatisfactory in terms of meeting the underlying distributional assumptions of OLS regressions. Some of these general assumptions are that the error term is normally distributed and thus has no aggregate influence on the data, that the standard deviation of the error term is constant, that the explanatory variables are exogenous and not correlated to the error term, that there are no serial correlation, and that the explanatory variables are not too correlated with each other (Englebert 2005).

\textsuperscript{152} For example, with a sample of 60, a correlation has to be at least .25 to be significantly different from zero – with a sample of 10,000 any correlation larger than .02 is significantly different from zero (Allison 1999).

\textsuperscript{153} As Allison puts it: “The general principle is this: In a small sample, statistically significant coefficients should be taken seriously, but a nonsignificant coefficient is extremely weak evidence for the absence of an effect” (Allison 1999:57).
credible commitments as defined here have a substantial impact on water coverage levels. In conclusion, despite some weaknesses with the above approach I find strong support for the overall model and cannot reject the hypothesis that (a lot of) the variation in water coverage levels can be explained by variation in credible commitments. The overall model is significant and supports this dissertation’s central argument: variation in credible commitments can account for variation in water coverage levels.

The next, and final, chapter briefly recapitulates the above findings and discusses further the theoretical and empirical conclusions.

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154 In addition to the data and sample size problem, another potential problem discussed in Chapter 4 – the problem of whether we measure what we intend to measure – is of course not smaller after the regressions have been performed than before, i.e., we still do not know if our indicators really capture the true content of our theoretical concepts. Finally, the potential problem with getting different results depending on how the model is specified still exists, but has not been encountered since I stick with the model I developed on theoretical grounds.
CONCLUSIONS

THE ARGUMENT CONDENSED

A growing consensus among researchers and policymakers holds land tenure to be a crucial component when trying to increase water coverage. Particularly in the sub-Saharan African context, the Millennium Development Goal number seven on how to cut the proportion of people without access to drinking water in half and improve the lives of at least 100 million slum dwellers is said to be directly related to the legal conditions under which citizens hold and gain access to land and related resources. Yet, although previous research argues that property rights are of decisive importance, I show in this dissertation that existing inquiries do not adequately focus on the role of the government in making the property rights truly secure. In order to increase our understanding of why some countries have more secure property rights and thus higher water coverage levels than others, I argue that we more explicitly need to investigate the role of the government in making property rights to land truly secure. More specifically, the commitment argument developed and tested here contends that if tenure reform is to have a positive impact on water coverage levels, attention should be turned to the issue of credible commitments in the form of *history of play* and *tying the grabbing hand*. Such an unbundling of secure property rights is clearly one of the key theoretical contributions of this dissertation.

The empirical investigation – a large-n quantitative assessment and a comparative analysis of tenure legislation and policies in twelve sub-Saharan African countries – illustrates that there is an unambiguous link between a high water coverage level and a credible governmental commitment to protect property rights (communicated through a cooperative *history of play* and a *tying of the grabbing hand*). This in turn suggests that it is the *security* of property rights to land that stimulates investments and improvements in water coverage rather than any particular type or form of land tenure. More specifically, the results illustrate that if tenure reform is to be successful, the government must enter into a self-enforcing agreement that makes it credibly committed not to confiscate all the wealth or produce of its citizens. The analysis shows that this can be accomplished by establishing a cooperative history of play, i.e., by adopting anti-eviction laws, by refraining
from forced evictions, and by engaging in a consultation process. In addition, this should be complemented by a tying of the grabbing hand through the devolution of land management responsibilities to lower levels. Such a commitment is clearly associated with higher water coverage levels, and thus constitutes an important step towards reaching the Millennium Development Goal number seven aimed to cut the proportion of people without access to drinking water in half by 2015.

This concluding chapter is organized in the following way. To start with, I summarize the empirical findings and then discuss what these results mean for the land-titling debate. Thereafter follows a section where I connect the findings of this study to how previous research has studied property rights, and where I highlight the importance of investigating the political economy of property rights and not view such rights solely from an economic or cultural perspective. In the subsequent section on the invest-protect game, I discuss what implications the results have for the game the government and the citizens play. Lastly, I look closer at what theoretical and practical implications the results from this dissertation may have.

THE RESULTS

Taken together, I conclude that the countries higher ranked in terms of water coverage to a larger extent have established credible commitments to protect citizen property rights to land by instituting a more cooperative history of play and by tying the grabbing hand harder than the less successful countries. The quantitative assessment clearly shows that the variables selected to represent credible commitments – the World Bank political stability and voice and accountability measures, the ICRG quality of government index, the Fraser Institute measure on legal structure and security of property rights, and the Transparency International corruption perception index – together account for around 74 percent of the variation in water coverage levels across sub-Saharan African countries. The quantitative investigation also shows that the traditional explanatory variables in fact explain very little of the variation in water coverage – even though population growth seems to have an independent and significant effect. This effect, however, disappears when the commitment variables are included in the regression.

The small-n comparison shows that, with the exception of South Africa, the countries higher ranked in terms of water coverage levels have established stronger credible commitments than the countries lower ranked (see Figure 5.1). When it comes to ranking the countries according to their history of play, Botswana stands out as a country where the government adopted anti-eviction laws, refrained from forced evictions, and engaged in a consultation process at an early stage. The tenure track-record in Botswana has thus clearly been cooperative. This is also the case in Namibia where
evictions have been rare and consultation has been thorough. After these two countries follows Ghana, Malawi, Tanzania, and South Africa. While the governments of these countries have improved their history of play considerably in recent years, they all carry a rather non-cooperative legacy including forced relocations and arbitrary evictions. However, the tenure track-record of Mozambique, Kenya, and Zambia, is even less cooperative. In these countries, many people have been forced to resettle and demolition of settlements was for long the default policy response towards informality. In Liberia, protection against eviction has been even weaker and tenure issues have by and large been overlooked. Finally, the countries which to the least extent have adopted anti-eviction laws, refrained from forced eviction, and engaged in a consultation process are Somalia and Ethiopia.

When it comes to tying the grabbing hand, a general conclusion is that the role of traditional authorities is a continuous issue of concern in all surveyed countries, and this is consequently an issue that needs to be further assessed in future research. In recent years, some countries have in fact experienced somewhat of a re-traditionalization of land tenure, while the content of customary tenure has at the same time been seriously debated. Overall, it is nevertheless clear that the countries with high water coverage levels have been more successful when it comes to incorporating chiefs and traditional authorities into legal management structures such as Land Boards or village councils. As such, these countries have also incrementally removed the exclusive control of traditional authorities over land use and allocation, while at the same time retaining a mix of formal legality and historical legitimacy. Botswana is undoubtedly the country where incremental devolution of land management powers can be traced the furthest back in time. Such devolution has in fact been an integral component of land policies since independence. Namibia is in turn following the Botswana example with Land Boards as a means to tie the grabbing hand, but has not yet come as far as Botswana when it comes to replacing traditional authorities with elected representatives. Similarly, in Ghana and Malawi, the devolution of land management powers to chiefly rule might potentially open up for local capture, although according to the definition here, the prevailing systems do indeed constitute a tying of the grabbing hand. Tanzanian land policies have on the other hand been criticized for removing all customary authority and instead instituting a land tenure system with too much state control of land. Yet, the land reform undertaken since the early 1990s has clearly moved decision-making power closer to the citizens since village councils and village assemblies now decide over land use and allocation. South Africa has also embarked on an ambitious land-reform program, but the devolution of land management powers has not been as extensive as in the other countries ranked high in terms of water coverage. The devolution of land management powers has come even less far in neighboring Mozambique, where citizens suffer from
conflicting land claims and a multitude of land management authorities. In contrast to for example Mozambique, Kenya’s land management system has relied much less on state control of land. Yet, although Kenya’s land reform was initiated at an early stage, there is still a lot to be done in terms of devolution, and the Kenyan case clearly shows that a system of private property rights needs an enabling institutional environment to work properly. Zambia has on the other hand favored a system of state control of land, but has not been able to incorporate customary tenure into the land management system. Liberia has in a comparative perspective tied the grabbing hand to an even lesser extent. But, once again, at the bottom of the ranking we find Somalia and Ethiopia. Somalia has suffered from weak but predatory governments, and in Ethiopia, the previous system of land redistribution still today seems to cause widespread insecurity that discourages investments.

For sure, at a first glance it might seem unfair to compare poor and war-torn societies such as Liberia and Somalia with countries like the comparatively prosperous Botswana, South Africa, and Namibia. However, a closer look at the former countries reveals that the absence of a credible commitment to protect property rights to a large extent underpins previous and ongoing conflicts as well as serves as an explanation to broader differences in development trajectories (see for example Besteman & Cassanelli 1996; Deininger 2003; Bruce 1998a). Hence, given the theoretical framework in Chapters 2 and 3, the vastly differing country experiences when it comes to human development and well-being in general can be seen as a result of differences in credible commitments. Of course, state capacity, finance, and managerial skills are important for economic development and the delivery of basic services, but the analysis here shows that a credible commitment to protect property rights has important feed-forward mechanisms and is indeed needed if development is to get started at all.

The next section discusses further what these conclusions imply for the traditional land tenure argument and the debate over form or type of land tenure.

THE LAND-TITLING DEBATE REVISITED
When it comes to land tenure, there is on the one hand the view that private property rights is the most efficient system and that the negotiability and ambiguity of customary tenure systems bring low levels of productivity and low levels of long-term investments. On the other hand, many scholars argue that the negotiability and ambiguity of customary systems in fact are positive features that ensure access to land and related resources also to poor and marginalized groups, and hence not necessarily produce disincentives for investments. The merits of state control of land have also been seriously debated. While state control of land can safeguard equal land
holding patterns, the ambitions of the African states have in many cases been greater than their land management capacities, and bureaucratic inertia and corruption have been pervasive (see for example Platteau 2000; Toulmin & Quan 2000). This study’s central contribution to the land-tilting debate is the finding that the government has a prominent role to play in making land tenure secure – regardless of which type or form of land tenure that is being promoted. Researchers within the field of land tenure should consequently drop the ready-to-go answers found in the land-tilting debate and investigate empirically how and why land tenure has been made secure in some countries but not in others.

To reiterate, each of the tenure systems clearly has advantages and disadvantages. However, when surveying existing research on the relationship between land tenure, investments, and water coverage, it is apparent that, in policy circles, the issuance of private deeds was for a long period of time regarded to be the only way to get the investment incentives right and reduce vulnerability and the risk of dispossession. Hence, formal and private land rights have frequently been put forward as a silver bullet that would bring direct results in the fight against poverty. More than stimulating economic growth and the associated poverty reduction, formal land rights have also been proposed to provide (1) investment incentives for housing improvements, in water infrastructure, and natural resources, (2) financial security as collateral to raise credit, and (3) a basis for shelter, access to services, and civic and political participation (Durand-Lasserre & Royston 2002b; Payne 2002; de Soto 2000; de Soto 1989). While there is in fact a far-going consensus suggesting that secure rights to land can do all these things and more, there is widespread disagreement on how secure property rights can be attained in practice. More specifically, despite a dominant policy preference for registration of private rights, there is a large and convincing body of literature arguing that common property systems also can provide appropriate investment incentives and thus stimulate improvements in water coverage levels. Hence, the collective nature of customary tenure does not necessarily create disincentives for undertaking investments (Benjaminsen & Lund 2003; Sjaastad & Bromley 1997; see also Greif 2006; Dixit & Skeath 2004; Dixit & Nalebuff 1993). In many cases there is in fact an economic rationale for the traditional systems – merging small scattered land holdings in order to achieve economies of scale can for example fail because the scattering could be an economic response to idiosyncratic risk in the first place (Fitzpatrick 2005; Platteau 2000). Thus,

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155 For example Sjaastad and Bromley conclude: "Under these conditions, indigenous tenure is likely to provide significantly higher investment incentives than freehold, and very unlikely to provide lower investment incentives" (Sjaastad & Bromley 1997:559).
copying western-style property systems can not only fail to produce the intended effects, it may also be directly harmful.  

Moreover, titling advocates generally assume that imposing a system of private property rights is a nearly costless venture. Yet, imposing a system of property rights from the outside may come with substantial costs and has showed to be an inefficient and time-consuming exercise (Fitzpatrick 2006; Benjaminsen & Lund 2003; Firmin-Sellers & Sellers 1999; Bromley 1998). In addition, since several groups could enjoy different rights to the same land – i.e., some have the rights to occupation, others to grazing etc. – persons previously enjoying such secondary rights often find themselves excluded when communal land is privatized. However, while advocates of customary land tenure quite rightfully criticize the previously prevailing emphasis on private property rights, they tend to overlook that in times of external pressure or internal disorder, community failures are potentially as pervasive as the failures of other management forms.

Yet, what I show here is that an important weakness of the debate over form or type of tenure is that it overlooks the most fundamental question of what makes property rights secure, namely the issue of the role of the government and its credible commitment to protect citizen property rights. Accordingly, to fully understand land tenure and its ensuing investment incentives we must also analyze the role of the government – regardless of which form or type of tenure system that prevails. Individuals need the assurance that they will not be evicted from the land they live on without compensation. But that this assurance can be realized under only one particular tenure form is clearly a misunderstanding. The discussion about which of the various types of tenure promotes secure land tenure and

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156 Yet, many authorities act without assessing the benefits of customary systems, and in spite of the high costs of titling programs and their general failure to deliver the requested benefits. From this perspective, tenure reforms fail because they ignore or simply fall short of understanding existing, and in some cases well-functioning, property rights that users have developed over a long period of time. Reform efforts have therefore often decreased tenure security rather than enhanced it.

157 Instead of adapting informal settlements (where it is almost impossible to judge where one building ends and another starts) to freehold legislation, some argue that the legislation should be adapted to the actual conditions in the settlements (Durand-Lasserve & Royston 2002b; Payne 2002). However, this is rarely the case and land titling as conducted by many governments and donors are often said to have created more confusion than clarity. In addition, the measures to establish formal rights and thus formalize the informal order tend to ignore the overlaps and interactions between formal and informal natural resource management systems, and the process therefore tends to cause tensions among users (Dixit 2004; Banks 2003; Bromley & Chavas 1989). State-imposed systems have for example commonly run into conflict with the prevailing traditional ones, and many now emphasize the importance of developing systems that correspond with the historical and cultural practices in a society (Dixit 2004; de Soto 2000; Englebert 2000; North 1990). Plateau highlights why this is important: “…if property does not have legitimacy, it is not property since it lacks the basic ingredient of property, acknowledgement by others” (Plateau 1996:46).

158 For example women, pastoralists, and migrants are likely to lose previously held secondary rights in the titling process when multiple claims to land and resources are collapsed into the freehold category (Woodehouse 2003; Plateau 2000; Sjaastad & Bromley 1997). As a consequence, women often have to rely on male relatives, finding themselves deprived of the few rights they previously enjoyed under the communal tenure system (Hilhorst 2000; Bruce 2000; Payne 1997).
increased water coverage levels best tends to go astray in definitional debates and thus overlooks the fundamental importance for citizens to be certain of having rights to the benefits derived from land improvements. In contrast, the results here suggest that for example private title to land does not necessarily cause a sense of security. In fact, the extent to which it does so depends on the actions of the government.

THE POLITICAL ECONOMY OF PROPERTY RIGHTS

Traditionally, the study of property rights and land tenure has been dominated by economists and anthropologists, but the argument here is that this focus has only taken us so far in our conception of what really makes property rights secure. The novel feature that I bring to center stage here is instead the political economy of property rights and the role of the government in credibly committing to secure those rights (Acemoglu & Robinson 2006; Greif 2006; Frye 2004; see also Firmin-Sellers 1995; Greif, Milgrom, & Weingast 1994; North 1994; North & Weingast 1989). The core argument finding strong support in this dissertation is that if those in power do not credibly commit not to use their confiscatory powers as they wish, property rights are not secure and the citizens will hence anticipate the ruler’s confiscatory behavior and refrain from investing, which in turn holds back an increase in water coverage levels.

Consequently, the comparative study embarked upon here can be said to contribute directly to two large research areas within the field of institutions and development. To start with, an emerging consensus in economic history and contemporary development economics suggests that secure property rights are crucial for stimulating welfare-enhancing investments and productive activities in general. In numerous cross-country regressions, the so-called institutions-and-growth literature has asserted that the fundamental determinant of a country’s economic performance is the quality of its institutions (Acemoglu, Johnson, & Robinson 2005; Acemoglu, Johnson, & Robinson 2002; Clague et al. 1999; La Porta et al. 1999; Knack & Keefer 1995). Admittedly, there is a debate over whether institutions really trump all other explanations (see Glaeser et al. 2004; Rodrik, Subramanian, & Trebbi 2004; Olsson & Hibbs 2005), but there is nevertheless a consensus that institutions constitute one of the most powerful explanatory factors; high-quality institutions do provide a foundation for markets and welfare-enhancing exchange by securing property rights that encourage production, technology adoption, and investment (Greif 2006). Differing development trajectories thus, “...has little to do with natural resource availability, climate, foreign aid, or luck. It is, rather, a function of whether incentives within a given society steer wealth-maximizing individuals toward producing new wealth or toward diverting it from others” (Knack 2003:1). Hence, development economics
has by and large shifted its focus from factors such as capital accumulation and technological progress to instead highlight that poor countries are poor (and service delivery fails) due to weak property rights systems, making it more costly to engage in production than predation (see for example Acemoglu & Robinson 2006; Goldsmith 2004; Barzel 2002; Easterly 2002; Hall & Jones 1999; Evans 1989).\textsuperscript{159} Yet, this study shows that in order to do gain a proper understanding of why some countries have secure property rights whereas others do not, researchers within the institutions-and-growth literature should more explicitly try to unbundle the concept of property rights, and focus on the credible commitments underlying and securing such rights.\textsuperscript{160}

The second research field to which this study brings an important contribution is the more micro-oriented literature on institutional design, common property resources, and natural resource management in general. Similar to this study’s argument, the micro-oriented literature suggests that property rights institutions affect individuals’ expectations of the behavior of others, which in turn fundamentally determine whether people engage in investments and productive activities. Yet, this body of literature also argues that the free-rider logic has led many to adopt a restricted view of the institutional opportunity set and to conclude that collective management is not a viable institutional alternative. Repeated efforts to refute Hardin’s \textit{tragedy of the commons} have shown that besides being vested in individuals or states, property rights can be successfully granted to communities or other local level collectives who can solve collective action dilemmas and transform open-access regimes into sustainably managed common property (Toulmin & Quan 2000; Bromley 1992). Yet, clear from the section above, in pursuing this argument, many studies have overlooked the potential for community failures. Consequently, the contribution from this dissertation is that researchers focusing on the issue of institutional design and resource management on the local level should also explicitly incorporate an assessment of the surrounding institutional framework and the role of the government into their analyses.

Similar to previous research, at the heart of this dissertation’s argument is that economic development and investments will be seriously hampered if property rights are insecure.\textsuperscript{161} Yet, despite these similarities, I

\textsuperscript{159} Poverty is in this perspective preventable since it is not the product of ignorance or of inevitable natural forces but rather a result of reversible institutional and political failures caused by perverse incentives created by political institutions (Bueno de Mesquita et al. 2003).

\textsuperscript{160} Previous studies have for example largely been preoccupied with asserting the importance of property rights rather than investigating why such rights are secure in some countries but not in others.

\textsuperscript{161} In fact, the simple but far-going proposition in the NIE literature is that, “No economic development is possible without secure property rights” (Engerman & Sokoloff 2005:644). On a general level, insecure property rights negatively affect income and wealth creation in general, and water coverage in particular, in at least three ways. First, people are assumed to invest less in productive activities if they are uncertain of being the ones who are to reap the returns. Second, insecure property rights make it profitable to withdraw completely from the productive economy and instead engage in subsistence activities, or even
show that the assertion that property rights institutions are important habitually suffers from a simplified view of institutions – a conclusion that might be of interest for researchers not only interested in the two research fields above but in institutional theory or theories on economic development more generally. More specifically, dominating economic theories of property rights tend to hold that institutions are created for reasons of efficiency: when there is a demand for institutions, institutions will arise.\textsuperscript{162} Culturally oriented theories on the other hand focus on how beliefs prevalent in society shape collective action and institutional arrangements. The perspective supported here, however, is most accurately sorted under political theories, but with strong economic influences where the potential trade-off between production and predation is at center stage.\textsuperscript{163} The importance of beliefs and cooperative behavior is acknowledged also in this perspective, but are seen as derived from the existing institutional framework. While economic theories deserve credit for rightfully assuming that political actors are rational and pursue their own self interest, the results here disagree with the notion of efficient institutions arising evolutionarily. In contrast, I show that property rights are not simply a product of moral principles or market forces, but originates in a political process and are as such a political outcome that can be attributed to purposeful action by individual agents in a society (see for example Sened 1997). However, as I emphasize in this dissertation, the purposeful action is in turn defined, shaped, and constrained by institutions. In this way, this study links the economic perspective – which sees institutions exclusively as rules or contracts – and the cultural one – which sees them exclusively as

\textsuperscript{162} But it might for example be helpful to realize that although property rights lower transaction costs, there are also transaction costs involved in upholding a system of property rights. It is, quite naturally, costly to specify who has the right to what, and to make sure the rights are respected. More specifically, the costs are derived from creating and maintaining necessary institutions and the cost of measuring and enforcing contracts. These costs can often be quite sizeable and are defined by Levi as the cost of measuring, monitoring, creating, and enforcing compliance (Levi 1988). Specifying for example who has the rights to what piece of clean air or to what particular pelagic fish is without doubt a costly endeavor – notwithstanding enforcing compliance. With respect to resources like the atmosphere or migrating wildlife, property rights systems can thus be tremendously costly to uphold, if not impossible. And although property rights are intended to reduce transaction costs, transaction costs are thus also partly responsible for the way in which property rights are allocated and enforced. Yet, these costs and the general complexity involved are not always taken into account in institutional analyses. The economic analysis of property rights for example usually takes on an overly simplistic evolutionary outlook. In fact, many economists postulate that property rights will arise spontaneously when the gains from imposing such an institutional arrangement exceed the accompanying costs.

\textsuperscript{163} Hence, perhaps most accurately labeled a political economy perspective.
beliefs and ideas. Taken together, previous approaches – and the economic perspective in particular – display a somewhat naïve belief in the survival of the fittest institution, as they without hesitation ascribes optimality properties to institutions.\footnote{As Bardhan puts it: “There is a certain ahistorical functionalism and even vulgar Darwinism at display here” (Bardhan 2005:27; see also North 1990).} However, the existence of so-called sub-optimal equilibria where collective goods are undersupplied clearly limits the explanatory power of such an evolutionary perspective, and, as it overlooks the politics of property rights and the commitment problem that pursue the supply of secure property rights, I find it fair to label previous approaches naïve theories of property rights (Platteau 1996).

In conclusion, although both quantitative assessments asserting that property rights are important and case-based research on institutional design have some useful elements, I promote the idea that the main challenge for reforms is to get the incentives right – not only for resource users but also for the government. To reiterate, given the government’s strategic incentive to violate citizen property rights, the promise to protect property rights must be credible and not subject to arbitrary changes over time. However, establishing such a credible promise is complicated by the fact that there are considerable time-inconsistency problems in the relationship between the government and its citizens. The government for example often promises rewards tomorrow for certain behavior today; in our case the government for instance promises to protect citizen property rights tomorrow in order to make them invest in productive activities today. Once the investments are made, however, the government has all incentives to violate the agreement. And if the government is not credibly committed to follow through, the citizens in turn rationally anticipate the breach of agreement and are reluctant to invest in the first place. Thus, to stimulate the long-term prosperity of both the government and its subjects, a credible commitment to stick with the agreement and not to confiscate the produce of citizens needs to be put in place.

The next section of this chapter further explores how the results here show that in order to explain how commitment problems can be solved and why some countries have secure property rights whereas others do not, it is important to explicitly focus on the relationship between the government and its citizens. It is also of crucial importance to address the incentive structure facing the government and not only the incentives facing private agents vis-à-vis each other. Yet, similar commitment problems are in fact to be found in every inter-temporal decision concerning transactions or investments, and the general lesson is thus that in order to understand the creation of efficient institutional arrangements, especially in the absence of third-party enforcement, it is important to carefully investigate the incentives faced by both parties in an interaction.
THE INVEST-PROTECT GAME

So what do the conclusions imply for the game that the citizens and the government play? The invest-protect game developed in this dissertation builds on the assumption of rational actors acting strategically i.e., taking the expectations of the behavior of other agents into account when deciding their own strategy. Moreover, and clear by now, the argumentation in this dissertation is, at its core, institutional. The premise of my argument is basically that institutions provide shared understanding and framing of the situation at hand, define and articulate the expected behavior of others, and specify normatively appropriate actions. Institutions thus constitute the domain that individuals understand (and in which they can predict other people’s behavior), determine their interests, and specify the morally and strategically fitting line of action. As such, institutions comprise the incentive structure facing individual or collective agents – they lower uncertainty and transaction costs in human interaction, specify the payoffs, and spell out the various strategies open for achieving the desired goals. An institution, I argue, is thus a system of social features (rules, beliefs, norms, and in some respects also organizations) that together produce some form of behavioral regularity that lowers uncertainty. On the most fundamental level, these systems motivate, constrain, enable, and guide individuals. They are man-made and exert an exogenous influence on each individual, yet each individual contributes to reinforcing the institutions: rules are created by man, but are eventually mapped into beliefs that in turn help reinforce the rules (Greif 2006).

The underlying assumption behind this view of institutions-as-incentives is, quite naturally, that people respond to incentives. This basic rationality assumption simply means that people are ascribed the ability of purposeful action, i.e., they are assumed to have preferences and to act in order to fulfill them, taking both physical circumstances and expectations of other people’s behavior into account (see Levi 1997; Sened 1997).

Given this rationality assumption and the payoffs of the game, the Nash-equilibrium in the invest-protect game is a non-cooperative outcome where the anticipation of government confiscation makes citizens refrain from investments. In this game, the actors move sequentially, and since the citizens move first; they have to give before receiving, but at the time of giving all they get from the government is a promise of future rewards. And if the government’s commitment to follow through on this promise lacks credibility, i.e., if there are no clear-cut incentives for the government to stick with the agreement, then the citizens will anticipate predation and there will consequently be no giving at all from the citizens. Hence, the only way for the government to stimulate investments is to establish a credible commitment that changes the expectations of the citizens. This in turn requires that the government refrains from violating citizen property rights.
The most straightforward way of making sure that this is the line of action to be followed by the government is to take away the confiscation option, i.e., tying the grabbing hand. However, a cooperative history of play can potentially also produce the same outcome, if the game is played repeatedly. The citizens have incentives to embark on a trigger strategy implying that they cooperate as long as the government cooperates, but if the government defects, then the citizens choose defection forever. The citizen threat of defection forever is credible and hence gives the government incentives to stick with the agreement.165

The results here illustrate that a self-enforcing equilibrium is of crucial importance to stimulate investments and higher water coverage. Hence, the cooperative history of play and the tying of the grabbing hand appear to stimulate citizen investments. However, since there in this case exists no outside enforcer who can reward or punish the actors if rules are not followed, the task of establishing a cooperative history of play and tying the grabbing hand is a continuous and self-enforcing process. Clearly, the self-enforcing equilibrium might be fragile; it takes time to establish a cooperative history of play and to tie the grabbing hand – yet the reputation can easily be tarnished and the devolution process continually faces a risk of simply transferring the grabbing hand to a lower level. Nevertheless, for institutional theory, the empirical analysis implies that we have to look beyond the issue of form or type of land tenure and explicitly focus on the interaction between the government and its citizens. The credible commitment argument finds strong support, indicating that if we would like to understand why some countries have more secure property rights than others, we need to focus not only on citizen investment incentives but also on the incentives facing the government, and on the interaction between the two parties. Taken together, it is clear that successful countries (in terms of water coverage) have established credible commitments as defined here to a larger extent than less successful countries, and it is also clear that most of them end up in the cooperative equilibrium while the less successful countries end up in the non-cooperative equilibrium according to the terminology in Chapter 3 and the invest-protect game developed there.

The South African case, however, provides a rather puzzling outcome since the high water coverage level does not correspond to an equally strong commitment to protect citizen property rights. The case of South Africa may to some extent illustrate that comparatively predatory governments too might invest in and provide some rudimentary public goods to its citizens. Yet, it is probably more accurate to conclude that the high water coverage level in South Africa hides serious differences in terms of how secure citizen property rights are. Some segments of the South African society clearly live with secure property rights and the affluence that such rights can bring, and

165 See Chapter 3 for a formal demonstration of this logic.
this in turn seems to affect the possibility of getting hold of water for other segments of society as well. The fact that some people have the incentives to invest in water infrastructure and other necessary improvements thus might increase the likelihood of other groups gaining access to water, although those groups themselves in fact have insecure property rights and insufficient investment incentives. The case of South Africa in this way opens up for further investigations and the development of a theory of partial property rights protection where the government establishes a credible commitment to some segments of society while failing to protect the property rights of others. A closer examination of the South African case is thus likely to reveal that the overall outcome, which might be classified as an invest-predate outcome, is just the average effect of two parallel and simultaneous games where the government is in an invest-protect equilibrium in relation to certain segments of society while in a subsistence-predate equilibrium in its relation to others. Yet, further investigations are needed to fully comprehend how, more specifically, the overall invest-predate outcome produce positive spill overs for the majority of the citizens living in a subsistence-predate outcome.

What is more, the case of South Africa illustrates that quantitative and qualitative assessments clearly can generate diverging conclusions. The off-the-shelf indicators normally employed in quantitative investigations portray South Africa as a country where the government is committed to protect property rights. On the other hand, the small-n study reveals that the offered protection – and the protection measured by the standard statistical indicators – does not include the property rights of rural smallholders or urban slum-dwellers.

THE IMPLICATIONS

Given this theoretical argumentation and the empirical results presented above, the overall conclusion in this dissertation is that credible commitments by governments to protect citizen property rights do indeed affect water coverage levels. If governments do not establish a cooperative history of play by adopting anti-eviction laws, abstaining from forced evictions or engaging in a consultative process, or if the grabbing hands of the governments are not tied by devolved decision-making powers over land management, then property rights are not secure and do not stimulate the investments necessary for increasing water coverage levels.

Another important conclusion is that property rights cannot be enforced by coercion alone. A predatory government makes citizens and economic agents avoid investing and instead withdraw into subsistence activities and the informal sector. If the leaders of those states are to survive

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166 See for example Bueno de Mesquita (2003) for an outline of such a theory.
in the long run, they must therefore blend coercion with cooperation. In the absence of third party enforcement, such a cooperative outcome needs to be self-enforcing. The strong must simply give their weaker counterparts a positive incentive to engage in productive activities, and for that reason they should embark on a cooperative history of play, and agree to tie their hands and create a coordination device for the citizens.

We must thus focus on the institutional micro-mechanisms underpinning a credible commitment’s emergence, stability, and dynamics. When there is no outside enforcer who can reward or punish actors for deviating from the cooperative path, incentives to abide by the rules should not be taken as exogenous. For sure, it can be convenient to assume that the government has a monopoly over coercive power and enforces contracts and property rights. Yet, I demonstrate that it is the mutual relation between rulers and the ruled that is of primary interest. While this no doubt builds on the traditional Northian argument which contends that institutions are formal and informal rules together with their enforcement mechanisms, the result here also places endogenous motivation to follow rules at the center of analysis. Institutional development can thus be seen as a sequential process where the blending of institutional traits is important for making the institutional arrangement incentive compatible and thus self-enforcing. Consequently, successful institutional reform and the creation of secure property rights involve much more than simply changing tenure rules; it also requires creating a self-enforcing arrangement of interrelated institutional elements that motivate, enable, constrain, and guide individuals and leaders to follow certain strategies. The narrow, albeit common, view of institutions-as-rules should thus instead be replaced by a more encompassing institutions-as-incentives conceptualization (that focuses on the incentives facing both parties in an interaction).

For practical policy, these findings imply that in order to increase the proportion of people with access to drinking water, more attention should indeed be given to the process of tenure reform. To live without land tenure often means to live under constant threat of eviction, which in turns not only hampers investments by citizens themselves but also excludes them from accessing services provided by the government or by private water agencies. If residents are uncertain whether the plots they use today will be theirs tomorrow, then investments in permanent improvements, housing, and water infrastructure are rationally kept to a minimum. Accordingly, informal dwellers in both rural and urban areas generally share not only the everyday struggle of poverty, but also the lack of recognized rights to land which in turn is said to hold back an increase in water coverage levels. But the security of citizen rights does not stem from any particular form or type of tenure. Regardless of whether property rights are vested in the state, in line with customary systems, or granted to individuals, the government plays a crucial role as a potential violator of the rights in place. And if not credibly
committed not to misuse its confiscatory powers, citizens expect the government to turn predatory at any given point in time. I here illustrate that in order to make citizen tenure secure and encourage long-term investments in fixed assets like wells, housing, and water infrastructure, the government must clearly establish a cooperative history of play and tie the grabbing hand in its relation to the citizens. It is thus not possible to undertake a successful tenure reform if not simultaneously focusing on credible commitments and the interaction between the rulers and the ruled.

Undoubtedly, African countries display huge differences when it comes to factors such as colonial history, ethnic, linguistic, geographic, and climatic diversity, and successful land tenure systems can for these reasons not easily be exported wholesale to other countries. But despite such differences and potential difficulties, the general lesson from this study is that for water coverage levels to increase, governments should abstain from forced evictions, and instead provide anti-eviction laws, engage in consultation, and devolve land management responsibilities to lower levels. Lack of secure land tenure and the resulting lack of access to drinking water is thus a condition that is produced politically – intentionally or otherwise – by the absence of a credible commitment from the government. As such, since the condition is a result of the actions of the government – it can not only be made but also unmade.
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