PBL Netherlands Environmental Assessment Agency

MAKING SENSE OF LAND-USE CHANGE IN LIGHT OF FOOD PRODUCTION IN AFRICA

The role of governance, institutions, and public administration

Background Report

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22 November 2017

Colophon

Making sense of land-use change in light of food production in Africa: the role of governance, institutions, and public administration

PBL Netherlands Environmental Assessment Agency

The Hague, April 2018

PBL publication number: 2132

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PBL Netherlands Environmental Assessment Agency is the national institute for strategic policy analysis in the field of environment, nature, and spatial planning. We contribute to improving the quality of political and administrative decision making by conducting outlook studies, analyses, and evaluations in which an integrated approach is considered paramount. Policy relevance is the prime concern in all our studies. We conduct solicited and unsolicited research that is both independent and scientifically sound.

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Summary

This report builds on earlier PBL studies that highlight the large variability in national trends in food production and land-use change in Africa (Huisman, Vink, & van Eerdt, 2016). On the basis that governance could be a key factor explaining the large variability in trends (Huisman et al., 2016), this report examines: 1) the basic characteristics of governance, institutions, and public administration in general; 2) how institutions and public administration matter for governing land and food production; 3) the specific African characteristics of institutions and African countries' relatively weakly developed, though diverse, systems of public administration; 4) the implications of these diverse African institutional contexts for land use and food production.

From a review of the role of governance, institutions, and public administration in the context of African land use and food production, we conclude that African systems of public administrations (bureaucracies) in particular have a (potentially) large role to play in land-use management and food production. The diversity in administrative styles in Africa underlines Huisman et al.'s (2016) findings and points to a need for international donor communities to focus on, and cooperate with, African public administration if the donors' objective is to promote more sustainable land use and food production. We then contrast these findings with land- and food-related development aid programmes now and in the past, and distinguish three ways in which these programmes have dealt with African systems of public administration: 1) by aligning with public administration in the donor country instead of with public administration in the recipient country, 2) by blueprinting administrative ways for African countries to work that stem from contexts alien to the African context, 3) by completely ignoring the role of administration in land use and food production.

Concluding that these three approaches have not led to satisfactory results in Africa, we propose a different approach to dealing with African institutional contexts, and especially African public administration systems. In line with scholars who stress the need for context-specific interventions, we propose a *diagnostic* approach to African institutional contexts and public administration. If public administration systems were better diagnosed, interventions could be designed to align with the existing institutional context, and, more pragmatically, would facilitate bilateral cooperation between donor and recipient governments. On the basis of: 1) state-of-the-art knowledge on how public administration systems and their functioning vary across nation states and 2) the typical characteristics of governance in Africa, we propose five indicators that are relevant for diagnosing the effectiveness of African public administration in the management of land use and food production:

1. **The degree of centralization of African public administration** matters for the extent to which local land interests are weighed up and attuned with national interests in making national decisions

2. **Type of state–society relations** relates to the extent to which public administration is embedded in society, takes care of societal interests, and is capable of mediating specific societal interests – like affordable food prices, properly functioning local markets, proper extension services – with national interests like foreign investments, maintaining governmental budgets, or overall yield increases.

3. **Degree of politicization of public administration** is determined by the extent to which civil servants are political appointees or act in their individual interests. Degree of politicization is important for the extent to which public administration is likely to work in a national overarching interest rather than in its specific interest. It also matters for the degree of professionalism in public administration, as degree of professionalism has a strong influence on governments' capacity to diagnose problems,

design solutions, weigh up options, and implement interventions. This is of specific concern when land use and food production are involved.

4. **Type of knowledge organization** can be determined either outside government through think tanks, donor agencies, or consultants, or from within bureaucracies, generally leading to more applied knowledge but less diverse types of knowledge and less learning. This matters for governments that become stuck in ideological approaches to agricultural development or land-use management.

5. **The role of the market in governing land use and food production** matters for the type of approach that will be taken to intervene in African land use and food production: either cooperating with government or choosing a market approach.

Combinations of these indicators yield seven archetypical African states defined by their systems of public administration. Each archetype points to specific approaches that should be prioritized in development cooperation to improve land-use management and food production in that particular type of public administration system. This does not mean that other approaches are not relevant, but, if resources are limited, these approaches could be given priority. Because of the diverse and heterogenic character of many bureaucracies, the archetypes should not, however, be copied to existing African bureaucracies but rather should be used as inspiration when diagnosing (parts of) African bureaucracies in practice. The archetypical African state governance types are:

1. Decentralized and depoliticized public administration: **the Weberian ideal**. The challenge here is to enhance the adaptive capacity of Weberian machinery through learning and innovation.

2. Decentralized and politicized public administration: **the developmental state**. The challenge here is to introduce new ideas through cooperation with local elites, search for pockets of effectiveness in the administrative system, and work on cooperation with organized societal interests to allow for better mediation of societal interests with state interests.

3. Centralized and depoliticized public administration: **the bureaucratic state**. The challenge here is to address scale issues, possibly through the improvement of land administration, whereby local interests are formalized and hence empowered.

4. Centralized and politicized public administration: **the 'typical' African state**. The challenge here is to enhance professionalization, possibly by searching for pockets of effectiveness within existing public administration or through long-term bilateral cooperation between donor country administrations and key figures in the recipient public administration, allowing a learning process to take place. A focus on new knowledge and ideas on land use and food production is also relevant. If public administration is highly politicized, this can be done in a politically legitimate way through cooperation with elites close to administrative leaders or with authoritative organizations like local universities, research organizations, or technical schools.

5. Centralized and politicized public administration, with very limited or one-sided state–society relations: **the predatory state**. This is a highly complex context because everything becomes politicized easily and therefore runs the risk of failure. If development cooperation is aimed for, the priority challenge is to find efficiency solutions that benefit the local population or national interest but do not harm the political leaders.

6. Public administration that plays a marginal role and leaves most land and food production issues to the market: **the market-oriented state**. The main challenge here is to get the legal system right in order 1) to permit companies to do legitimate

business and 2) to both create a stable environment and have regulatory instruments that allow for mainstreaming national interests in business activities through national law.

7. Lack of a functioning national public administration: **the weak state**. Development cooperation in these states is complex because of the lack of stability and the lack of a central authority with which to cooperate. The priority challenge is formalization of informal institutional contexts.

Because public administration and institutional context in general determine to a large extent the trends that emerge in land management and food production, we conclude that a focus on public administration deserves special attention if the aim is to secure more sustainable land use and food production. Diagnostics of public administration systems, and how they function in society, should be a precondition before interaction takes place. The proposed archetypes and approaches can be a starting point.

In working with public administration systems to achieve more sustainable land use and food production, it should never, however, be forgotten that an *instrumental* focus on governance, as adopted in this report, can entail far-reaching political effects. Governance to get things done, or to put things in place, almost always has different consequences for different actors. We should not be naïve; a focus on institutional context is important, if not essential, for systemic effects. Nevertheless, their effects will always come with societal winners and losers. Hence, working with public administration can be very effective but always involves getting one's hands dirty.

1 Introduction: African food production in perspective

In 1968, Gunnar Myrdal (1968) wrote *Asian Drama: An inquiry into the poverty of nations*, a comprehensive analysis of the 'human drama' that characterized the Asian continent until then. In contrast to the African continent at that time, Asia faced high population growth and was scourged by famines – a phenomenon that prompted Myrdal to have a negative outlook on the prospect of Asian development. Although Myrdal won a Nobel Prize for Economics, his looming predictions for the continent appeared far from accurate. In the following years, a couple of science-driven interventions in agricultural technology sparked a development that in 25 years transformed Asia from a food importing continent into a food exporting continent (Hazell, 2009). See Figure 1.1. This development is believed to have laid the foundation for the later industrial revolution in many Asian countries like China and Korea. This development eventually enabled China to lift over 500 million people out of poverty in less than three decades – an achievement that the world had never witnessed before and a trend that will probably prove to be one of the most important contributions to achieving the first Millennium Development Goal (Fan, Zhang, & Zhang, 2002; WRR, 2010).

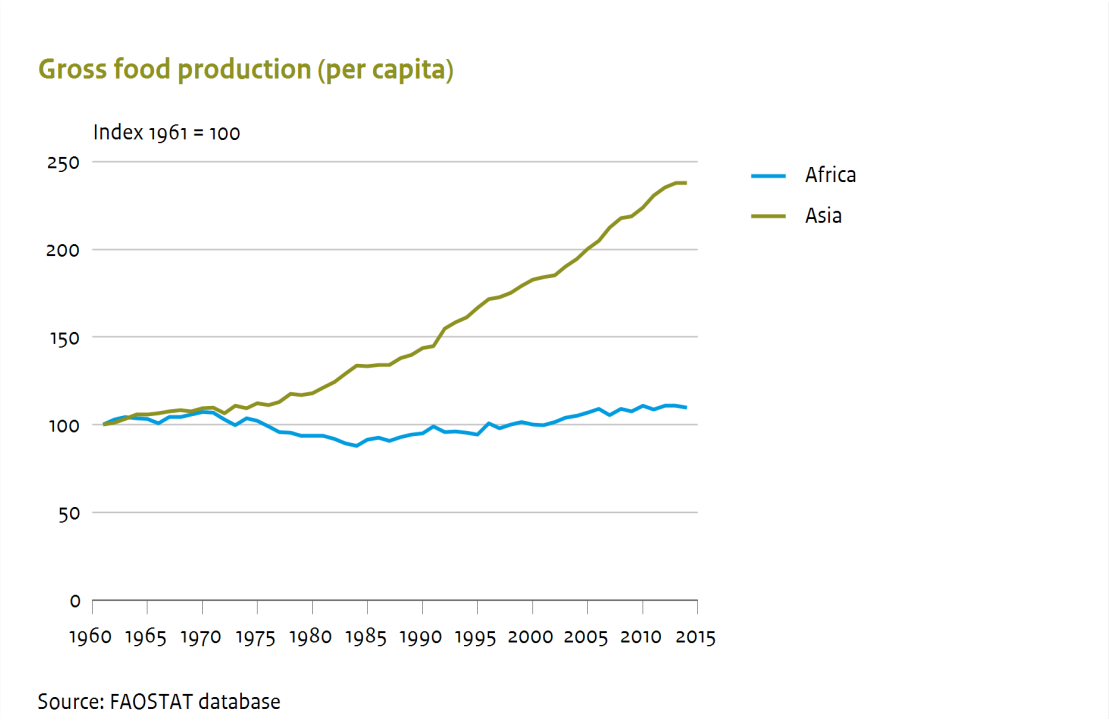


Figure 1.1 The gross per capita production index of food in Asia and Africa, 1961–2013 at national level (Source FAOSTAT database)

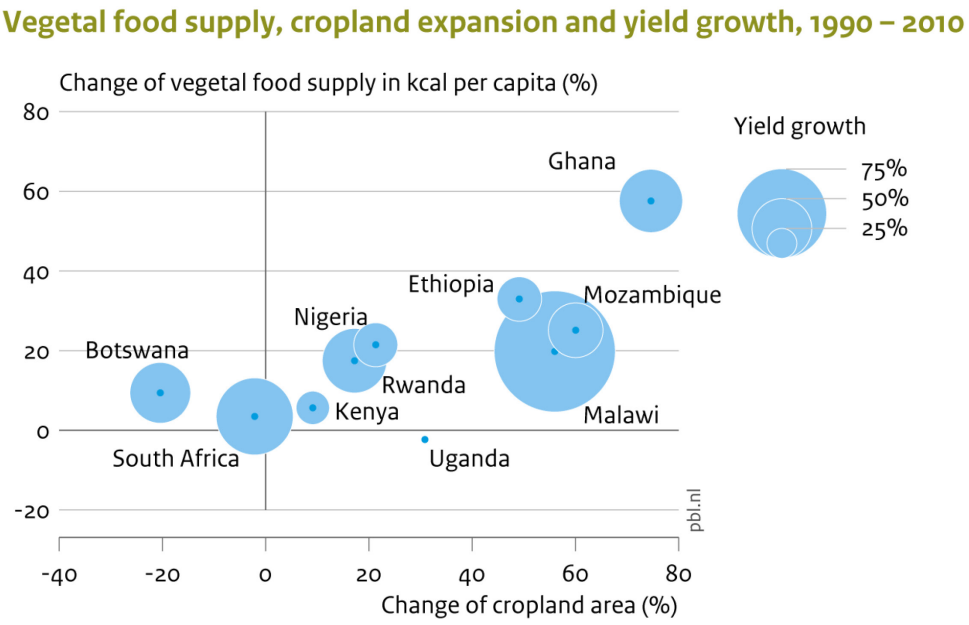
Attempts to spark a wide-scale green revolution on the relatively land-abundant African continent, however, never really took off. Despite high expectations during the years after many African countries' independence in the 1960s, the following decades manifested stagnating agricultural production hardly capable of keeping pace with Africa's population growth. The lack of agricultural improvement led international organizations, donors, and

scientists to signal the risk that the expansion of agricultural land would compromise Africa's rich biodiversity. This paradoxical sequence of events – from Asian famines in the 1960s sparking fatalist views on Asia's future and Asia's subsequent success as against increasingly food-scarce regions of Africa, despite Africa's relative land abundance and resource richness – hints at the complexities behind food production growth and improving food security in Africa (Frankema, 2014; InterAcademy Council, 2004).

After 60 years of international development cooperation, seemingly straightforward questions like: What role does land availability play in food security? How important is agricultural development for food security? Are science-driven interventions in agriculture the way forward? And are there universal lessons to be learnt anyway? still appear to provoke debate (Lieshout, Went, & Kremer, 2010). Asian countries largely became middle or high income countries, and so now the debate centres on Africa, especially because Africa is the continent faced with the highest expected population growth and – on average – still relatively very low yields and limited improvements in food security (Frankema, 2014; InterAcademy Council, 2004; World Bank, 2008). In addition, climate change impacts and agricultural expansion rather than intensification through innovation are believed to threaten biodiversity (Balmford et al., 2001; Hilderink et al., 2012; Laurance, Sayer, & Cassman, 2014; Perrings & Halkos, 2015; UNECA, AUC, NEPAD, & WFP, 2013). In terms of land use and food security, this raises the question of what makes Africa such an odd case in an international comparative perspective and what consequences this has for foreign development cooperation interventions.

1.1 African agriculture: worlds apart

Closer examination of actual country-specific trends in food production, agricultural expansion, and associated land-use change nuances the dire African picture however. In a context of high population growth and decades of declining food production per capita, average African food production per capita started to increase again between 1990 and 2010. There is, however, a wide variety of trends in factors affecting food production and food availability. Population growth varies across countries, as do food imports, yields, and agricultural expansion rates. Combining these trends at country level reveals different development pathways, all indicating different causes and different consequences for food security and biodiversity conservation at country level. Hence, average African figures do not tell a representative story of developments in food security and land dynamics. Looking beyond the average figures, one can see glimmers of hope regarding food security. Despite vast population growth, over the last 20 years, Ghana for instance witnessed a 1.5kg increase in vegetable food production per capita per day, mostly thanks to intensification and associated yield increases (Huisman et al., 2016). These statistics are all the more impressive against the backdrop of the many claims made by international organizations, NGOs, and scholars forecasting persistent hunger and agricultural expansion as contemporary African characteristics (Buys, 2007; IAASTD, 2009; Kariuki, 2011; Oxfam Novib; World Bank, 2008). The figures for other countries, however, are more dramatic. Uganda did not witness an improvement in per capita food production at all, but it did witness agricultural expansion, probably at the expense of biodiversity (Huisman et al., 2016). See Figure 1.2.



Source: PBL calculations from FAOSTAT database

Figure 1.2 Vegetal food supply, cropland expansion, and yield growth 1990–2010
Source: PBL calculations from FAOSTAT database

Different trends suggest the existence of different approaches to developing food security. However, picturing the effects of these different trends on land dynamics and food security developments is one thing, but understanding the actual causes of the different trends is another. The academic literature on agricultural development suggests different theories explaining agricultural development. First of all, the African biophysical context is highly diverse, comprised – in contrast to large parts of Asia – of a wide variety of cropping systems and a variety of potentials for development (Frankema, 2014; InterAcademy Council, 2004). The role of these biophysical conditions is often viewed from the perspective of (micro)economic theories explaining farmer behaviour in relation to means of production, prices, and livelihood characteristics (Ellis, 1993), or with a slightly broader focus including: population density, markets, tenure rights, scarcity, and innovation (Boserup, 1965; see also: Huisman et al., 2016; Place et al., 2013; Ruttan & Hayami, 1984). Interestingly, microeconomic analysis is eminently capable of elucidating decision making at livelihood level, but the additional focus on biophysical, demographic, market, and technological factors has not (yet) proved to be very satisfactory for elucidating the larger trends and cross-country differences. Recent studies on innovation in African agriculture show the important role of societal organization in terms of institutional arrangements that in a more general sense *govern* human decision making. Institutional arrangements are therefore important for understanding how innovation and agricultural development take place (Acemoglu, Robinson, & Woren, 2012; Frankema, 2014; Ruttan & Hayami, 1984). At a very large scale, this might be illustrated by the strength with which many large Asian bureaucracies were capable of 'unrolling' the Green Revolutions' technology; a strength that most fragmented and partly collapsed bureaucracies in Africa were lacking at that time (Brandt & Brüntrup, 2002; Hazell 2009). At a national scale however, the question remains, how these insights match the empirically revealed variety in trends in food production, let alone land dynamics. How is governing land related to type of institution, and how could the different trends in food production be understood by the variety in national, regional, or local governance context? And finally, what do these different governance contexts imply for intervention strategies?

1.2 Research problem and question: towards understanding the variety of trends in land-use change

After the more recent revival of agriculture and food production as pivotal factors in international development discourse (World Bank, 2008), the Dutch government incorporated this issue more prominently in its international development cooperation policies; not for the first time however. Agriculture has long been a major focal point, with a strong emphasis on technology transfer and macroeconomic development. This trend was in line with the unfolding of the Green Revolution in Asia and Latin America based on improved rice and maize varieties developed by the international development agencies, IRRI and CIMIT, funded by the American Rockefeller Foundation – a trend which by the way was not uncontested. Scholars have highlighted unintended trade-offs and human drama, especially concerning the environment, health, and implications for the poor and the landless (Glaeser, 2011; Pearse, 1977; Redclift, 2010). In addition, 40 years after the development of new crop varieties and technology, scientific innovations have still not sparked a green revolution on most of the African continent. During the 1980s and 1990s, the attention on large-scale science-driven interventions faded and the focus turned to macroeconomic reform informed by the Washington Consensus. During the 1990s, social sectors became a new focus, which some claim fits better with the logic of media campaigns compared to abstract storylines about crop varieties and irrigation schemes (WRR, 2010).

1.2.1 Why a governance perspective?

In the renewed attention on agriculture, the focus has changed somewhat. This time, the focus is on food security, private entrepreneurship, and more recently food systems (Westhoek, Ingram, van Berkum, & Hajer, 2016; World Bank, 2008). Furthermore, sustainability has become an issue of growth, innovation, and efficiency rather than a public policy concern (Bouma & Berkhout, 2015a). Nevertheless, the main concern remains low yields per hectare. Different from the debate in the 1960s and 1970s, knowledge and technology to improve production systems are now technically within reach. Despite the need for proper diagnostics of Africa's diverse biophysical context, the development of the right knowledge and technology does not have to be the main factor hindering the improvement of Africa's relatively slow development of average crop yields (InterAcademy Council, 2004). The variety in national African trends, the Asian Green Revolution's illustration of the importance of proper public administration (bureaucracies) and public investment in infrastructure, as well as recent research on the importance of the *national policy regime* (Acemoglu et al., 2012; Fan, 2008; Frankema, 2014; Sheahan & Barrett, 2014) all point towards the need to understand the embedding role of governance, institutions, and public administration. In addition to the biophysical context, the governance context largely explains how resources such as land and public goods such as agricultural knowledge and innovation, food security, and land administration are (publicly) managed in light of increased demands for food.

1.2.2 Research questions

Therefore, this report focuses on the role of governance in African food production and related land-use change. The following research questions are posed: 1) How can governance be understood in an African context? 2) How does African governance relate to African land dynamics and food security from a cross-continental comparative perspective? 3) How can country-specific trends in food production, food security, and land dynamics be understood

from a governance perspective? 4) What insights do these approaches suggest for international development cooperation and business development?

1.3 Aim and structure of the report

Following the trends addressed by Huisman et al. (2016), the governance analysis concentrates on the national level and works in a deductive fashion (thinking from theory to reality) towards possible governance typologies and possible guidelines for intervention. Deductive reasoning is illustrated by examples and other empirical research. To proceed, the next section of this report starts by positioning the challenge sketched in the introduction in wider conceptual notions of governance, institutions, and public administration. We operationalize these concepts in an international comparative perspective, contrast these concepts with contemporary development discourse and practices, and draw conclusions on how to understand African land dynamics in light of national level food production trends. In line with Huisman et al. (2016), all analyses are approached from a governance perspective, predominantly at national level. We conclude that the large and complex nature of national level food production in relation to biodiversity is a function of the governance capacity of national level institutions to safeguard sustainable land management and food production as national interests. We show that, in addition to the frequently outlined political side of (good) governance, institutional context serves a more instrumental side of governance. While appreciating the value of bottom-up approaches in maintaining and improving sustainability at community level, we show that a focus on national systems of public administration is essential for instrumental reasons if sustainable food production and saving biodiversity are viewed as interests of the nation as a whole. Finally, we discuss archetypical governance typologies and their effects on food production and land-use change, and work towards an archetypical *modus operandi* for intervening in these governance typologies for better and more sustainable governance of African land for food production.

2 Governance, government, and institutions: introducing the basics

2.1 Collective action problems and competing claims

2.1.1 Governing the commons

Before we turn to the conceptual side of what governance actually is, it is probably wise to ask why land and food security should be 'governed' in the first place. Are these issues not simply biophysically, or at most economically, determined? The simplest answer probably lies in the realities of overgrazed pastures, eroded or degraded arable lands, or depleted waters for irritation. More academically explained, these phenomena were characterized by Hardin as 'a tragedy of the commons' (Hardin, 1968). Without some basic form of cooperative governing or 'steering', each individual user will overexploit resources in his/her own interest. A lack of communication between individuals, or a lack of guarantee that resources will be available in the future, makes it fully rational, from a rational actor perspective, to exploit resources as

much as one can. Not knowing how much others will use will logically lead to individuals acting in their own interest. Communication about resource use can solve part of this dilemma. Individuals can communicate how much they each need now and in the future, preventing uncontrolled exploitation. Communication does not guarantee, however, that individuals will behave accordingly; some individuals might 'freeride', jeopardizing communication. If actors know that other actors will not act according to their communication, should they not communicate anyway? Therefore, to avert a tragedy of the commons, collective action or steering is needed to prevent freeriding. Nobel Prize winner Elinor Ostrom (1990) replied to Hardin's tragedy of the commons with her empirically informed theories of how *governing* the commons can overcome a tragedy of the commons. As already implied by the title of Hardin's work, the use of land is specifically related to a tragedy, therefore requiring a form of governance. Food security is more complex however. In this report, we assume that food security ultimately depends on food production and therefore is largely a function of proper governance of land resources. In a more general sense, the report acknowledges that national level food security depends on proper governance of the (inter)national food system of markets, actors, regulation, access, resources, and products at large, now and in the future (Westhoek et al., 2016).

2.1.2 Land and food as collective action problems

Does the need for governance imply that land use and food production should always be managed in a collective sense? A brief glance at current agricultural and food systems worldwide reveals that most agricultural land is privately owned and that food production largely takes place in formal or informal market settings. This would suggest that both land and food are generally not managed as common interests. A market setting, however, is not a rule of nature; rather it forms one of the basic collective agreements on how to govern resources and goods. Markets, user rights, and private ownership are not 'just there' but are created and mediated (or governed) by societal organization such as communities or state governors. Furthermore, national food security is not guaranteed when agricultural land is privately owned, nor will private management of land guarantee biodiversity or a healthy environment. Biodiversity and the environment are typical collective action problems that can lead to Hardin's tragedy of the commons if not managed in a collective way. In most societies, privately owned land and food markets are generally underpinned by collective or state-managed legal systems guaranteeing ownership, infrastructure, and management of the market. In modern societies, the state often acts on behalf of the nation as a collective. In more traditional societies, the state often plays a less prominent role, and communities or other parts of society act as the collective that directly governs the collective action problem. Private ownership and food markets are therefore rather the result of choices made by governors or societal collectives to guarantee a collective interest than rules of nature. If nobody guarantees the collective interest of ownership, economic transactions and investment in, for example, fertilizer or terraces to combat erosion will become less likely. As classic examples of potential tragedies of the commons, global biodiversity, a stable climate, and a healthy environment are even more prominent in their need for collective governance. In these cases, governance needs to go beyond the nation state to prevent a tragedy of the commons on an international scale.

2.1.3 Competing claims on land

Governing a common interest does not mean that individual, group-specific, or sector-specific interests cannot still compete with one another or with a common interest. National interests like maintaining biodiversity, macroeconomic stability, food security, financial liquidity, safety, or national infrastructure may put claims on land that compete with regional or individual claims on land like access to grazing grounds, regional tourism, wood production, cash crop

production, or smallholder farmland for self-sufficient food production. Depending on how they materialize, claims can be complementary; national food security and smallholder self-sufficiency, for example, can amount to the same thing. Furthermore, well-managed claims might create synergies or win-win solutions. If less productive areas are kept under natural vegetation and productive areas are more intensively used, this might satisfy both food security claims on land and biodiversity claims. Or claims on biodiversity might coincide with claims on – for example – water storage capacity. Depending on the nature and the materialization of the claims, claims on land might also compete however. If the claim on food security materializes in large-scale crop production undertaken by high-tech foreign-funded agriculture, this might amount to claims on land that is already being used by a few smallholders. In an unmanaged situation, competing claims on land might lead to conflict and suboptimal solutions, or solutions that could be defined as unfair. It is clear that, in addition to dealing with the collective action problem of managing a common good, governance might also have a function in the fine-tuning of competing interests into synergies and win-wins, or the management of conflict in the case of actual competition.

2.2 Governing collective action problems: actors' *puzzling* over ambiguity and *powering* to get things done

Governing claims on land from the perspective of sustainability and food security is not a straightforward process however. Governance on the one hand has to deal with collective action to prevent a tragedy of the commons, and on the other hand has to devise smart solutions to coordinate and fine-tune claims and underlying interests to create optimal outcomes; but governance also needs to choose, plan, and maintain different interests when competition between interests and their claims cannot be ruled out by possible synergies or win-wins. In this context, neither technocratic governance – where the 'best' policy option can be derived from proper calculation and modelling – nor a more political perspective on governance – where stakeholders have to compete over interests – is applicable (Schön and Rein, 1994). Or as governance scholars like Majone (1996) state, politics does not fully determine either the governance process or the search for the best solutions. In cases where policy problems represent issues of distribution of resources like land, the governance process relates mainly to interests and organizing power to get what one wants; but, when policy problems are represented as coordination issues to create smart solutions, win-wins, or synergies, a more technocratic way of policymaking is often adopted. However, as Majone (1996) points out also, this distinction is not clear-cut: there are usually winners and losers when efficiency measures are implemented, and compelling ideas will be necessary to give direction to political power struggles over choices.

Hence, an interesting way of conceptualizing the governance process might be what scholars like Heclo (1974) and others (Culpepper, 2002; Hall, 1993; Hoppe, 2011; Van der Steen, Chin-A-Fat, Vink, & Van Twist, 2016; Vink, van der Steen, & Dewulf, 2016; Visser & Hemerijck, 1997) call a process of both *puzzling* and *powering*, where policymaking is about organizing enough *power* to get things done, and about collective *puzzling* over facts, ideas, and concepts to come up with plausible storylines and smart plans that fit reality. In other words, governance is more than a power play over interests, but also more than what scholars often define as a power-free Habermassian (Habermas, 1968) process of dialogue and learning in which stakeholders and policymakers together with experts, committees, or stakeholders deliberate over complex problems, wondering what to do.

In whatever governance arrangement – hierarchical bureaucracies, but also global roundtables on sustainability issues, societal organizations, farmer cooperatives, village councils, or tribal arrangements – interplaying processes of puzzling and powering determine governance

outcomes. To plan land reform, implement erosion measures, or simply encourage farmers to use fertilizer more widely, pure (governmental) power needs *puzzling*. Brute force alone will not lead to the most effective land use, optimal land reform, or most sustainable erosion measures. On the other hand, to be able to offer new insights on how to manage soils, to ensure that new technology is adopted, or to bring new problem definitions to the policy table, a puzzling process needs to be accompanied by a process of power organization so that the issues are addressed at the policy table, implemented, or managed.

In addition to the essential role of each separate process of puzzling and powering, both puzzling and powering interact constantly (Heclo, 1974; Hoppe, 2011; Vink, 2015). In a governance context, smart solutions to, for example, low yields are likely to elicit (powerful) support from governments or stakeholders, just like the formulation of problem definitions that are shared by powerful stakeholders or appealing storylines that resonate with the problems as felt by farmer organizations. On the other hand, processes of powering might alter the understanding of what is at stake. Changing power configurations – for example large landowners making a deal with the government – might change the problem definitions of smallholders who now have to worry over the future of their land instead of the organization of deliberations with the government over new types of (for example) fertilizer subsidies. Hence, by puzzling over what to do to ensure more sustainable land-use management, governance actors simultaneously change power positions. Conversely, if power positions regarding who is responsible for land-use management are changed, actors' processes of puzzling over problem definitions will change as well.

2.2.1 The *political* side of puzzling and powering: ensuring that specific interests are served

The outcomes of puzzling and powering therefore partly depend on the actors participating in the puzzling and powering. New actors bring in new problem definitions and therefore change the puzzling process and ultimately the powering process (Hoppe, 2011). Puzzling and powering over, for example, sustainable land-use management will always have consequences for actors affected by the new policies or regulations. Depending on what shared problem definition emerges out of a puzzling process, some actors will be affected more positively than others. If, for example, the actors in a governance process collectively define the lack of land rights as a key issue leading to farmers' lack of investment in land conservation, this might have the negative effect of informal land users losing access to land, or affect specific groups like herders bound to shifting patterns of rain rather than specific formalized plots of land. Depending on the problem definitions and the corresponding power configurations emanating from a governance process, different actors will win or lose. Puzzling and powering therefore intrinsically touch upon politics.

2.2.2 The *instrumental* side of puzzling and powering: putting policies in place

The political side of governance is widely acknowledge by scholars, societal organizations, and international agencies like the UN and the World Bank, leading to an array of studies that address the negative trade-offs of many governance initiatives. Even when typical collective action problems are involved like flood-risk management or proper infrastructure, anthropologists have indicated how centrally led governance approaches often neglect locally experienced problem definitions and result in unequal distributions of costs and benefits. International organizations have formulated 'good' governance principles and indicators that are deemed to constitute a universal governance approach in which some form of actor inclusion and equal benefits to all stakeholders are guaranteed.

What generally attracts less attention in discussions on governance in a development context is the *instrumental* side to puzzling and powering (Peters & Pierre, 2016). If infrastructure is to be put in place to connect local coffee produce to world markets, the diagnostics of what problem is solved by which type of infrastructure in which locations, the design of the infrastructure, the tackling of financial issues and tight budgets, implementation, maintenance, and the management of, for example, the new settlements that emerge along new infrastructure, all require a strong governance capacity. Governance actors will have to be able to define the implementation issues at stake and have the capacity – or power – to act upon the defined issues. Governance capacity therefore is about the capacity to (collectively) puzzle over what is at stake and how to achieve the solution, but also about the power to actually engage contractors, sign contracts, arrange enough funding, pay salaries, and negotiate with provincial officials, multinationals, tribal leaders, and so forth.

Hence, apart from the political side to puzzling and powering over infrastructure, the *instrumental* challenge of putting infrastructure in place requires extensive puzzling and powering. This is also where, from an international comparative perspective, Africa represents an odd case. At national level, most African governance capacity to get things done effectively in the national interest is relatively weak compared with other governance capacities around the world (Hyden, 2010; Painter & Peters, 2010). One of the reasons that a green revolution did not take off in most African countries is – to a large extent – the limited capacity of African states to diagnose, design, and execute the implementation of green revolution technologies (Brandt & Brüntrup, 2002).

2.2.3 Puzzling and powering in context: how institutional context determines the 'rules' of a 'governance game'

Puzzling and powering over land and food security issues are not independent processes however, but take place in a context. Part of this context is the biophysical reality that shapes the availability and characteristics of the (land) resources puzzled and powered over. Another part of this context is the human agreements that shape the societal structure, or what scholars define as the institutional context. The biophysical context largely determines the stakes that are to be puzzled and powered over. The institutional context is less straightforward and largely determines the characteristics of how puzzling and powering, or governance, take place (Acemoglu et al., 2012; Rodrik, Subramanian, & Trebbi, 2004; Voors & Bulte, 2008). The institutional context can be a regular town-hall meeting, the meeting of elder men in a village, women's participation groups, or – at national level – ministerial working groups, parliamentary debate, stakeholder consultation meetings, and so forth. In most cases however, the institutional context is not a single arena. The institutional context also determines who is in charge, who may participate, what the formal status of an agreement is, how conflict can be resolved, who can be an arbiter, what knowledge is accepted, the roles of women and men in growing crops, and so forth.

In a very basic sense, the institutional context resembles long-lasting bundles of human agreements that shape human behaviour. The institutional context can be formal, like the formal characteristics of parliamentary debate or the formal communication between a policeman giving a fine to a civilian; but the institutional context is often also very informal – which family member generally does the planting and weeding of crops, and who generally attends the town-hall meeting, husband or wife. The institutional context determines that puzzling and powering in each different context have different (official) meanings and therefore different concrete outcomes. Similar statements or problem definitions acquire different meanings when articulated by different actors in each of these different contexts. A minister defining a specific issue at stake has different effects and outcomes than a farmer organization defining the same issues in a routine meeting with government officials, or an individual farmer

defining issues in a media broadcast, town-hall meeting, or to her husband when puzzling and powering over the monthly expenditure on fuel for the irrigation pump.

In more academic terms, institutions are the formal and informal constraints that organize societies (Acemoglu et al., 2012; March & Olsen, 1989; North, 1990; Rodrik et al., 2004). Institutions are the relatively stable agreements in society that guide, stimulate, distinguish, or hinder actors' behaviour. Institutions set the 'rules' of a 'governance game'. Some actors are more authoritative than others; some (formally determined) arenas are more authoritative than others. The rules of the game in specific arenas allow for the participation of actors that would not be allowed to participate in other arenas. Or some arenas allow for the discussion of issues that could not be discussed in other arenas. A minister plays a different formal role in relation in a formal parliamentary setting than a member of parliament does, leading to different consequences when they both make the same statement. And if an ordinary civilian occasionally enters the parliament building, this does not mean that he/she has a say similar to that of a formal member of parliament.

Contracts, legislation, constitutions, land tenure systems, and policy are all institutions that together shape the institutional context. The type of contract that a farmer has with a micro-finance organization to finance her irrigation pump, a middle man for selling her rice, or the landowner for using the land, all largely determine her behaviour. These institutions will therefore determine how she will define the issues at stake, what she will consider problematic, and how she will puzzle and power over the matter with the micro-finance organization representative, the middle man, or the landowner. In many – development – contexts not all contracts and agreements are formal. The institutional context often consists largely of routinized patterns of land use, cropping, selling, and buying, all informally agreed upon years or decades ago. In a similar way, puzzling and powering over micro-finance with an organization representative is determined by historically established societal agreements on how a woman interacts with a man.

Puzzling and powering – or governance – over land and land use is therefore unlikely to take place in the open. Puzzling and powering processes take place in the institutionally shaped and constrained arena of, for example, a ministerial working group, a town hall, a farmer cooperative, a political party, a household, or a formal negotiation between the Ugandan Minister of Agriculture and a British private equity fund. Each constrained arena has its own rules determining inclusion and exclusion of actors, status, procedures, and underlying values. Therefore, the institutional context determines what puzzling and powering can possibly occur. Similar to how football players and basketball players share similar interests or 'drivers' (winning and scoring), actual players' behaviour is not comparable because of the different constraints of football and basketball games. Both games set different rules determining the different possibilities for puzzling over how to score and powering for support from fellow players to actually win the game.

2.3 Government

Institutions and institutional context matter for how puzzling and powering over collective interests like sustainable land-use management and related food security play out. In cases where land is privately owned, ownership is in a way a collective choice about governing land so that it will not be directly exploited. In other cases, land might not be 'owned', but can be used based on collective choices to allocate user rights. Sometimes, these collective choices are actually collectively made by communities deciding over who is entitled to use land. In Africa, these types of community-based land governance are common. In most developed

countries however, nation states and their governments largely determine how the national collective interests are governed. Governments are typical solutions to larger-scale collective action problems. In many cases, governments to a large extent determine the nature of land governance, whether it is left fully to private ownership and the market, whether the market might govern land but with specific areas allocated for specific societal purposes, or whether the government itself owns and governs it. Governments are a special type of institution, or actually governments are complex bundles of institutions mostly embedded in some form of constitution and nationally shared idea of what a nation state should do (Acemoglu et al., 2012; Dyson, 1980; Lijphart, 2012). Most nation states – at least formally – act in their nation's collective interests. If governments have puzzled out that private ownership is for example the most effective or preferred way of governing land in a sustainable and profitable way for their nation as a whole, this is likely to crystallize as the collective choice for governing land. Governments therefore play a large role in puzzling and powering over land, especially when food security and therefore some form of sustainable land-use management are viewed as a national interest.

2.3.1 Government and politics

Governments are not, however, uniform entities acting in everybody's individual interests. Public goods are also ambiguous, demanding puzzling and powering over what is included and excluded from the *definition* of a collective interest (Dewulf & Bouwen, 2012; Vink, 2015). Is a special fund for investment in irrigation or a fertilizer subsidy part of the collective interest 'food security' or does it support specific farmers more than others? And is food security a collective interest any way, or simply an individual citizen's responsibility. As already mentioned, politics influences governments in their puzzling and powering over land. Some governments are democratically chosen or otherwise appointed political elites that guide the state and its bureaucratic system of public administration. Governments set priorities, puzzle over what constitutes a collective interest, and mediate societal interests, group-specific interests, or regional and sectoral interests (Dyson, 1980; Heclo, 1974; Hyden, 2010; Painter & Peters, 2010). Governments do not always have a good reputation however; in development contexts in particular, governments are associated with a misuse of resources and power for a select minority. Governments, and especially their public administration systems or bureaucracies, are often considered incapable of defining the problems at stake, and corruption is thought to hinder proper implementation.

2.3.2 Governments and their unique capacity to implement large things

From an instrumental perspective however, government bureaucracies are often the only organizations that have both the formal status and the most likely means to implement large things (Peters & Pierre, 2016), such as for example a national system of healthcare, but also a national system of land administration, extension services, funds for investment in irrigation schemes, or phytosanitary services to guarantee the quality of agricultural produce on the world market. Whether the government of an African state will have the political will to actually implement a national healthcare systems is another thing, just as the question of whether a government has the actual capacity to implement such a complex thing as a national healthcare system, or, even more importantly, whether it has the capacity to diagnose whether a national healthcare system is the most effective approach to take for national well-being or national self-reliance given the current state of development and the limited available financial resources with which this kind of government generally has to struggle (Rodrik, 2010; WRR, 2010).

Hence, despite the debatable reputation of governments and their public administration systems, it is logical to focus on them when large-scale national interests like sustainable land-

use management and food security are concerned, not in the role of land manager or crop grower *per se*, but especially in the role of rule setter, stimulator, investor, and maintainer of the stable and level playing field that allows various actors to grow crops and ultimately form the basis of a sustainable food system (Westhoek et al., 2016). Whether governments will always work on national goals is another issue, but focusing on the capacity of public administration to puzzle and power over these national interests is probably an interesting point of departure for understanding how land-use change and food security could be governed (Peters & Pierre, 2016; Rodrik, 2010).

2.4 Government in an international comparative perspective

In addition to the fact that governments and their administrative systems are not uniform entities that work towards 'naturally' determined collective interests, governments around the world differ largely in their characteristics. Obviously, these differences lead to very different approaches to governing. First of all, some governments do more things, and others do less. This can be a result of a political negotiation or a longer standing cultural idea of what a government should do (Dyson, 1980). Others have defined this as a (social) contract between state and society, which often rather implicitly distinguishes what the state can expect from its citizens and what the citizens can expect in return from their state (Adger, Quinn, Lorenzoni, Murphy, & Sweeney, 2012; Benabou, 2000; Bohnet & Frey, 1999).

Closer examination, however, shows that, in particular, the institutional organization of the government machinery – system of public administration - differs largely across countries and even across continents. The differences in the institutional arrangements of public administration are known to have large effects on how things like land-use management and food security play out (World Bank, 2008). For example, one of the reasons why a green revolution did not take off in most African states is the characteristics of African public administration systems compared with many Asian public administration systems at that time (Brandt & Brüntrup, 2002; Hazell, 2009). We explain this later in the report when we discuss how development aid has interacted with recipient public administrations. Differences in state organization are often rooted in long-standing histories of societal organization that crystallized, setting the rules of the governance game in specific societal groups, resulting in country-specific forms of political strife over who can govern (Acemoglu et al., 2012). These *state traditions* are largely historically determined and not easy to change, being long-lasting bundles of government institutions intertwined with societal organization and interests. State traditions are rather abstract, but are often mirrored in more comprehensible *administrative traditions* or *bureaucratic styles* (Painter & Peters, 2010; Peters & Pierre, 2016). Bureaucratic styles are comprehensible in the sense that they represent the organizational and regulatory characteristics of bureaucratic organization. They form the machinery of the governmental vehicle and determine whether a government is quick to change course, powerful enough to go uphill, stable when roads become bumpy, and responsive to their passengers' needs when the weather turns hot. The characteristics of the machinery also determine which types of governance approaches work better than other approaches, given the existing machinery. As these aspects are more comprehensible than abstract social contracts or state traditions, public administrative scholars have devised some clear indicators to classify how administrative traditions differ across countries and the consequences that these differences have for how public issues like land use or food production are governed (Booth, 2012; Dyson, 1980; Howlett, 2009; Painter & Peters, 2010). Painter and Peters' indicators represent a clear standard for understanding how administrative systems differ and the consequences of these differences for the governance of public goods. We present an overview of their indicators in Table 2.1.

Table 2.1 Indicators of administrative traditions, after Painter and Peters (2010) and Peters and Pierre (2016)

Indicator	**Relevance**
State–society relations	Some administrative systems are organically linked to society, often leading to some form of organized interest intermediation between societal groups and state officials. In other countries, there is a somewhat more explicit contract between the state and society, often in the form of a constitution that links and constrains administrative systems vis-à-vis society. In these cases, the state functions as an independent object providing services to society, comparable to how, for example, a company provides internet services to society.
Governing by law or by management	Some administrative traditions tend to govern by simply executing the law. This assumes that the law is clear and readily implementable. In this case, civil servants are generally trained as lawyers. Other administrative systems govern by assuming the law as a starting point, but focus on the management of collective interests by writing polices, hiring companies that fulfil public tasks, or negotiating with societal interests to reach solutions pragmatically.
Degree of administration's independence from politics	In some countries, administrative systems function independent of political pressures. Administrators are independent professionals that oversee proper diagnostics and the national interest. In other countries, administration is to a larger extent the direct executive of political decision makers in power. In the latter case, (high level) civil servants are more often political appointees. This has consequences for the stability and professionalism of the administration itself.
The career of civil servants	In some administrative systems, the career of civil servants is a very distinct career path for life. This creates stability but also a limited influx of new ideas. In other administrative systems, civil servants do not have a distinct career type, and anybody can become a civil servant at any time. This creates an influx of new ideas from other societal sectors.
System of interest intermediation between state and society	Apart from the more macro relation between state and society, on a more day-to-day basis some counties have administrative systems that allow societal players to compete for influence on actual policymaking. Through tendering or ad hoc organized elections, societal players might get access to policymaking processes. In other countries, a few traditionally determined well-organized interest groups have routinized access to the policymaking process. In some countries, societal players have a very limited influence on policymaking, possibly undermining the legitimacy of the state towards society.
Degree of centralization and uniformity	On the basis that everybody should be treated equally, some countries have very centralized administrative systems that do the same thing for every citizen. This might lead to information problems, e.g. local problems not being properly addressed in centrally formulated policies, or localities not being reflected in the administrative system. A typical case is the French colonial legacy of transplanting its uniform governance approach to its colonies, ignoring existing governance structures. The British approach often left local governance in place.
Accountability mechanisms	In general, administrative systems need a form of accountability to their citizens if they want to maintain power. Some systems organize their accountability through the political system. Each decision or policy has to be accounted for by parliament or some other formal political approach. Other systems do this through a system of interest intermediation (the previously mentioned organized interest groups) or through legal

	mechanisms (mostly in the previously mentioned legalistic way of working).
Type of knowledge organization	In some countries, the administrative systems organize the knowledge to puzzle over complex problems within the bureaucratic systems themselves. In other countries, the bureaucracies organize the knowledge outside their own administration, or simply buy the knowledge. Administrations' own knowledge organization leads to a less instrumental use of knowledge and enhances professionalism in departments that have to deal with complex issues like finance or agriculture. Knowledge organized outside the administration might enhance learning.

From the indicators presented in Table 2.1, Painter and Peters developed nine families of administrative traditions: Anglo-American, Napoleonic, Germanic, Scandinavian, Latin American, post-colonial South Asian and African, East Asian, Soviet, Islamic. Each family shares basic characteristics that can be classified by the indicators and fit with a tradition in governing. Each tradition in public administration works differently, faces different challenges in the event of reform, and implies that different policy approaches will be effective in governing national interests like land and food in different contexts. In section 3, we augment Painter and Peters' classifications with general notions on governance in Africa and more specific (pre)colonial legacies in African governance. Combining each of these notions yields clusters of public administration systems, which we discuss in section 5. Each of these clusters covers specific African countries and can be indicative of the type of interventions most likely to enhance the national governance of land and food as national interests. Before we come to that however, we briefly highlight all that matters for governing besides (centralized) public administration.

2.5 *Governance*: actors, networks, markets, and anything else…

Examination of our notions about governments and administrative traditions could raise questions about the countless other activities that societal actors undertake on a daily basis to govern their land, their business, their livelihood, their neighbourhood, their cooperative, their access to the market, and all the other activities that especially characterize the largely smallholder-driven African food production systems. Why did we not mention all those activities in the first place, and how do those activities relate to the role of government? We have taken this approach because we want to stress the important role of governments in Africa, not so much in terms of their successes, but more so in their (potential) role in providing a stable institutional context as the precondition for African societies to develop sustainable food systems (Acemoglu et al., 2012; Hyden, 2010; Peters & Pierre, 2016).

Nevertheless, the fact that societies generally play an unmistakable role in the puzzling and powering over societal issues like land use and food security has been acknowledged by a growing population of scholars. From the 1980s and 1990s onwards, an empirical trend can be observed in the management of public issues; this has been labelled *polycentric governance*, *network governance*, or *decentred governance* (Goodwin & Grix, 2011; Ostrom, 2010; Rhodes, 1996; Stoker, 1998). Although confusing, the use of the term governance does not simply refer to the general process of governing with which this report started, but is used slightly more specifically for a form of collective steering or cooperating that takes place outside, or decentred from, the institutional context. Or as Ostrom (2010) expresses it, in collaboration between various smaller-scale institutional centres. This more academic concept

of governance focuses on how actors cooperate and collectively manage private issues and possibly even public goods, through networks of individual actors or smaller-scale bundles of institutions, markets, and basically anything else. In some cases, the trend towards more polycentric or decentred governance coincides with ideas and policies aiming at state withdrawal and the decentralization and privatization of public services. In other contexts, governance addresses a trend away from hierarchical institution-centred steering towards more horizontal deliberations between individual actors.

Although this academic concept of governance has attracted vast attention in a variety of disciplines, the concept remains imprecise and can at best be classified as a process of inter-organizational self-organizing networks that might accompany a withdrawing state (Rhodes, 1996). Others classify governance as all that remains when government is left out (Jessop, 1998). Most case studies show, however, that governance becomes a decentred process in the sense that organizational centres' capacities to regulate the process of governing become underdeveloped. In that sense, Rhodes (1996) continues, in decentred governance, policy outcomes are less dependent on a sovereign regulating authority responsible for decision making, and more dependent on a market-like coproduction of equal players in a network negotiating through language.

In Western democracies, scholars believe that they are witnessing a trend towards more decentred governance, first as an empirical phenomenon only, but scholars increasingly also propose decentred, network, or polycentric forms of governance as self-organized remedies to all kinds of complex problems for which the state is no longer expected to have the fine-tuning capacity (Hajer, 2011). In other words, decentred approaches to governance have become an answer to all kinds of issues associated with rigid and inflexible governments lacking democratic legitimacy. In addition, the concept correlates with many ideas of governing as proposed by development aid scholars and practitioners. In many development aid contexts, governments are seen as one of the reasons for the misuse of resources and power, leading to a plea for more dialogical, egalitarian, and participatory ways of policy formulation where all stakeholders may have an equal say. As we show in the next section, African nations are not only faced with democratic legitimacy problems. Problems in the management of national public interests like designing and planning agricultural innovation, as well as capacity issues for the large-scale implementation of, for example, fertilizer subsides, require a focus on governing through government. Decentred governance can be an answer to issues relating to state–society relations, but one can question whether it will solve the instrumental (e.g. coordination, design, implementation, maintenance, and basic decision making) issues with which African nations are faced concerning land governance and food security. As we show, different problems require different modes of governance.

3 Governing in Africa

3.1 Government and governance in Africa

In line with Huisman et al.'s (2016) empirical findings, from a theoretical point of view institutions in Africa matter for how land is governed and how that relates to food production. In other words, it is very difficult to understand the governance of land in Africa without knowing the institutional contexts that set the rules of the governance games over land in Africa. This matches with contemporary grand theories of how institutional developments

largely determine why some nations are wealthy and others are not (Acemoglu et al., 2012). Other quantitative studies have shown that development in Africa correlates with degree of pre-colonial institutionalization (Acemoglu, Chaves, Osafo-Kwaako, & Robinson, 2014; Michalopoulos & Papaioannou, 2013). Even today, these old forms of institutionalization appear to translate into more economic growth. More concretely, recent World Bank research on more than 22 thousand households studied all over the African continent indicates that the reason why the effects of fertilizer uptake differ so widely across these households is largely the variety in the national – institutional – regimes in which each of these 22 thousand households is embedded. The national regime appears to matter even more than local market conditions or biophysical conditions (Sheahan & Barrett, 2014).

3.1.1 African institutions and the issue of scale

So, what do these institutional regimes look like? And what makes them so different from regimes on other continents? A central feature of institutions in Africa is their wide variety and relatively local-scale nature. Apart from African governments, to which we will turn later, governance in Africa is largely a localized affair dealing with relatively local issues and addressing relatively local-scale interests. In a more negative reading, many African institutional contexts make governance rather fragmented. This means that, when governance interventions are being designed, in-depth understanding of on-the-ground institutional *machinery* is essential. It also means that puzzling and powering over larger-scale *national* interests becomes a more complex affair, for which indigenous institutional contexts are not always very suitable. This obviously has a lot to do with the relatively artificial and recent origin of the African nation states and the national interests that are addressed by these nation states (Hyden, 2010). Traditionally, land governance in Africa has been a rather localized issue, and much less than in Europe a matter of puzzling and powering over land-use management in light of food security as a *national interest*. In European governance, nation states have become very dominant over the last two centuries, especially in the management of land administration, land allocation, and food production.

3.1.2 Hybridized institutional context

Institutional contexts, and the processes of puzzling and powering that take place within these contexts, are therefore difficult to generalize in Africa. What can be said, however, is that Africa displays relatively many hybrid institutional contexts, *twilight* institutions, or institutional bricolage of all kinds of informal traditional, religious, more modern market-like, and formal governmental forms of institutionalization that are in constant competition and constantly being redesigned by the actors constrained by these institutions (Cleaver, 2001, 2002; Lund, 2006). These bricolages are not uniform in nature and differ across regions and countries. Hybrid institutions therefore largely determine the governance games over land use and food production in many African contexts. A very clear example is the wide proliferation of *legal pluralism* in African land governance. In pluralistic legal contexts, multiple legal systems exist in parallel, possibly in conflict. Each system is authorized by different authorities like a local chief, elder community members, a religious leader, a provincial authority, a water authority, or the state. Using these legal systems can be considered appropriate in different settings (religious settings, local marriage, misuse of land, or murder), but each system can also be selectively referred to when it suits actors best (Meinzen-Dick & Nkonya, 2007). For the governance of land, this means that puzzling and powering over what is at stake, who gets what, and how to get the support to manage land anyway, depends largely on informal institutions. As an example, a lot of land is under customary tenure, which means that the land is not owned in the sense commonly understood in the Western European context but can be used by specific actors, and this might change if conditions change. This is thought to have a significant influence on land users' investments in land conservation.

3.1.3 The promise of polycentric governance

In the governing of larger-scale issues, the plurality of these fragmented institutional contexts might resemble what Ostrom (Ostrom, 2010) defines as *polycentric* forms of governance. Where one would expect fragmented situations in which a variety of local-scale institutions are applied by a variety of actors for the governance of larger-scale public goods, a closer look often reveals more structure and order than expected. What these cases illustrate is that human interactions on the fringes of small-scale institutional arrangements appear to be capable of governing. Often, this is a type of governance that does not fully fit a market logic, or a hierarchical top-down form of steering, but is nonetheless capable of governing larger things than issues at the local institutional context level. Examples of polycentric governance arrangements that do not fully fit a market vs. a national government dichotomy are for example: commodity chains and knowledge transfer between smallholder farmers and their neighbouring foreign investor who introduces new cropping techniques, but also, at a global level, roundtables of NGOs representing local villages, business, and sometimes governments on sustainability issues. Although often based on local-scale institutional contexts and mostly lacking the binding constraints of national government steering, polycentric systems do appear to be capable of governing things larger than the freshwater well in a village or common pasture lands. We should therefore not be too sceptical about the capacity of local-scale institutionalization to manage larger-scale issues.

This does not mean, however, that these polycentric forms of governance are the most likely arrangements to solve collective action problems. Especially when binding arrangements are essential for macro stability, long-term planning, or large investments in less profitable business models, some form of government involvement is essential. In contrast to the binding and more scale-efficient character of most governmental planning and national legislation, polycentric governance is often of a more voluntary and case-specific character. If the NGO representing Ugandan villages does not like the outcomes of a roundtable on sustainable food production, it can step out. Conversely, the business-dominated roundtable can still claim that it is involving local interests even if only a few NGOs remain involved. Hence, polycentric forms of governance can be very effective if there is a collective will among a wide range of actors, or if a shared interest can be found around a specific issue, but the voluntary and case-specific character of polycentric governance might hinder economies of scale, accountability, and the binding character of decisions made. Scholars therefore question whether these forms of governance can guarantee governance over national interests, like for example land administration, research and development for less profitable cropping systems, or expensive phytosanitary services to guarantee some level of quality (Huitema et al., 2009; Schouten, 2013).

3.1.4 Why focusing on governments is appropriate

Although for a long time governments in Africa have shared a bad reputation (Bräutigam & Knack, 2004; McMullan, 1961; WRR, 2010; Wunsch & Olowu, 1990), for larger-scale or national-scale public interests it seems logical to take a closer look at governments and their administrative machinery (Booth, 2012). In particular, the rudimentary administrative traditions and generally limited capacities of African governments, together with their centralized organization and ambiguous relation with African societies, deserve attention. And finally, because of the national-scale focus on land dynamics and food production with which this report started, national governments are of special interest. In other words, if we want to understand why food production trends differ so widely across countries at national level, and if governance and its institutional rule setting appear to matter, then a focus on governments as a national governance level of concern seems unavoidable.

3.2 Governments in Africa: why a green revolution never took off

At first sight, the contrasting results in food production trends in Africa and Asia, discussed in section 1, might raise questions about the potential of technology to enhance innovation generally: Has technology ever reached everywhere in Africa? Or did technological innovation simply fail in Africa? A closer look reveals that a green revolution did not remain unmentioned in Africa. However, new technologies affected agricultural development only in specific places in Africa. Although technology was available, it was not used, or indeed failed. One of the frequently mentioned reasons for this nuanced image is the variety in biophysical conditions that characterize the African continent compared to Asia and the lack of infrastructure in Africa. Whereas Asian agriculture largely consists of the typical green revolution crops wheat and wet rice, innovations in these two crop varieties – and associated production technologies like improved irrigation and fertilizer use – did not fit the huge variety of cropping systems in Africa and the continent's sparse infrastructure. Biophysics therefore would suggest a need for a 'rainbow' of context-specific tailor-made technological revolutions in Africa. Each African cropping system would need its own revolution (Fan, 2008; Frankema, 2014; InterAcademy Council, 2004; Johnson, Hazell, & Gulati, 2003).

Apart from the diversity in cropping systems and biophysical conditions that were not addressed in the research and development of green revolution crops, a lack of implementing capacity within African governments' administrative systems was a second bottleneck hindering the launch of a green revolution. In addition to weak implementing capacity, many of the political regimes in Africa steering the administrative systems were either falling apart at the time that green revolution crops were introduced or were in the process of reinterpretation after independence. This led to serious barriers to the green revolution technology taking off. For example, many of the new crop varieties needed (additional) irrigation or fertilizer. Unlike many Asian countries where irrigation schemes and fertilizer use were implemented or supported by public administrative systems and public investments, to date only 4% of the African agricultural area is under irrigation, public investment is low, and fertilizer is not widely used (Fan, 2008; Huisman et al., 2016; World Bank, 2008). The design of the Asian Green Revolution stemmed from an almost military logic that required large top-down implementation and public investment in, for example, infrastructure. This precondition was met by many Asian countries like China and Korea but did not fit the relatively weak administrative systems of many African countries at that time (Berendsen, Dietz, Nordholt, & van der Veen, 2013; Brandt & Brüntrup, 2002; Frankema, 2014; Hyden, 2010). Although a lot can be said about the Green Revolution, its achievements in Asia and South America, but also the negative effects it had on inequality and the environment, what this Green Revolution episode above all illustrates is the important role played by national governmental machinery – public administrative systems and their capacity to implement and invest – when the objective is to manage land and food production as a matter of national interest. In this section, we therefore follow recent research that highlights the essential role of African public administration systems in solving development issues as collective action problems (Booth, 2012; Muilerman & Vellema, 2017; Peters, forthcoming; Sheahan & Barrett, 2014; Tavakoli, Simson, Tilley, & Booth, 2013) and extend those insights by elaborating on the specific characteristics of African administrative systems and their implications for land and food governance at national level.

3.2.1 Understanding African public administration: pre-colonial organization, colonial background, colonial styles, and non-state actors

Apart from ancient African political centralizations that correspond with current state territories like Ethiopia, Ghana, or Botswana, state formation is not a typical African affair. Adopting a historical comparative perspective, Frankema (2014) highlights how the relative emptiness of the African continent, which is still among the least densely populated continents of the world, could be one of the factors explaining the meagre formation of large-scale indigenous administrative systems. This is not to say that societal organization was absent or did not matter in Africa. Large parts of Africa did witness pre-colonial forms of political centralization, areas which still correlate with developmental success today (Michalopoulos & Papaioannou, 2013). Administrative structure therefore matters. In most cases however, these political centralizations never led to national administrative systems; or, as Hyden (2010) explains, *administrative traditions* that are common on most other continents have still to be defined in Africa. Most existing administrative systems are reinterpreted 'alien' leftovers of colonial powers that implemented copies or extensions of their own administrative traditions back home (Hyden, 2010). The different characteristics of both the colonizing powers and the location-specific strategies adopted by these colonial powers are believed to have country-specific consequences for state formation and public administration up to the present. Before we come to those country-specific characteristics, we elaborate the more general characteristics of African public administration.

As Painter and Peters (2010) show, even today administrative systems in Africa are relatively weak in comparison to the strong administration in many Asian countries. In addition, large Asian administrative systems like in India, China, or Bangladesh are often more powerful than political representation, leading to rigid – or bureaucratic – governmental behaviour, although very capable of implementation. In Africa however, politics generally dominates relatively weak administrative systems. Political parties generally stem from colonial-era rebel and opposition groups, preoccupied with politics rather than with stability and implementation. Furthermore, politics is often highly intertwined with administration in Africa. This intertwinement goes beyond party politics alone and can be characterized as *neo-patrimonialism*, where each civil servant is his/her own political agent representing specific interests (Hyden, 2010). Although this kind of neo-patrimonialism might create a tight relation between bureaucracy and specific parts of society, administrative capacity to implement in the national interest or the capacity to get things done on a nationwide scale are hindered by agent-specific or place-specific interests mingling in the administrative machinery. Apart from specific interests being given priority over national interests, highly politicized administrations generally are not known for their recruitment of professionals. African administrative systems can be more job-creating organizations for political purposes than professional organizations capable of puzzling over complex issues. Weak administrative capacity therefore means that large-scale planning and implementation are generally problematic (Painter & Peters, 2010).

Apart from the widely debated political side of (state) governance in Africa, the generally weak capacity of African administrative systems shows that the *instrumental* side of governance is essential, especially for understanding why some African countries succeed better than others in improving food security without too much expansion of arable land. The governance of land use and food production in most of Africa is only meagrely developed as a national interest. The often limited amount of land formally administered, the limited agricultural extension, the limited governmental budgets available for agriculture, and the limited investments in public infrastructures like irrigation or rural roads are clear indicators of this dearth of bureaucratic capacity (Frankema, 2014; Hyden, 2010; InterAcademy Council, 2004; World Bank, 2008). In addition, the dominance of politics over relatively weak administrative systems results

specifically in unstable governance situations. Changes in African governments' political landscape, or changes in the persons responsible, have generally huge effects on how things like land use and food production are governed. Contrary to many Asian Green Revolution cases, the institutions that set the rules of the (national-scale) governance game are often so weak that, if actors in charge decide to play a different game, anything is possible.

Country-level examination complicates the picture. To understand current differences in African governance and development, various scholars have attempted to define administrative families based on history and colonial legacies. Hyden (2010), for example, distinguishes between two ideologies among colonizers in Africa: direct rule, in which the colonial system was an extension of the system at home, and indirect rule, where indigenous institutions functioned as the lowest organs of administration. The former – much preferred by the French and the Portuguese – is in line with rather centralized Napoleonic administrative traditions. Indirect rule, on the other hand, which fits the more Pluralist approach common in Anglo-Saxon countries, was predominantly adopted by British colonizers. Direct rule was also adopted by the British however, especially where there were no traditional African authorities to rely on (Hyden, 2010). Others (Acemoglu, Johnson, & Robinson, 2000) add the idea of colonial style to this distinction. In places where harsh conditions led to high mortality rates among colonizers, colonizing powers adopted more indirect ruling, focusing on extraction rather than the development of an administrative system. Other authors claim that pre-colonial organization is still dominant in how current –patrimonial – African administrations function, or that the weakness of African administration makes non-state actors relatively important for understanding African governance (Herbst, 2014).

Although evidence on the importance of each of these variables for distinguishing current administrative families remains inconclusive (Acemoglu et al., 2000), illustrations indicate how each of these variables is likely to explain parts of contemporary administrative systems. For example, in Botswana, which was ruled by its colonizer Britain through indirect rule, utilizing large parts of the indigenous Botswanan ruling structures resulted in an effective post-colonial governance structure relatively capable of dealing with natural resources and food security (Hillbom, 2008; Lieshout et al., 2010). Algeria, on the other hand, is an example of a typical *Napoleonic* form of colonization, where the French copied their own centralized administrative system with the etatist aim of steering and crafting society, but almost independent of society. After decolonization, this led to the suspicion that the Algerians in the administrative system were still functioning as 'French elites', fuelling revolution and leading to a decline in agricultural investment (Mutin, 1980). Ethiopia, on the other hand, has never been seriously dominated by a foreign power. The country has its own specific tradition of governing and administering land use and food production. Despite a long history of (civil) war and hunger, the country's governance is doing relatively well in planning for improvements in food production systems (Huisman et al., 2016). Conversely, Congo was dominated by an atypical colonial power, Belgium, in a very extractive colonial style. Belgium never invested in Congo as a state; it did not protect property rights or implement any checks and balances against governmental expropriation (Acemoglu et al., 2000). Today, The Democratic Republic of Congo counts as one of the typical weak states riddled by conflict and with a large role for foreign non-state actors in relation to mediation of societal conflict and service delivery (Autesserre, 2008).

3.3 African public administration, decentralization, and the 'politics of scale'

Apart from the national versus actor-specific interests being addressed, and the limited capacity of African bureaucracies, a second issue is of particular importance in relation to the governance of land use and food production. As discussed in the previous sections, national interests do not necessarily coincide with regional or local interests. Most developed administrative systems address this 'politics of scale' issue through forms of decentralization. Regional or local layers of government deal with regional or local interests (e.g. a regional wildlife park for tourist purposes, a specific lake that feeds a local irrigation scheme, or the maintenance of religious places that are used by ethnic groups living in specific provinces). And when regional interests compete with national interests (wildlife threatened by new infrastructure for international trade; downstream irrigation schemes threatened by upstream drinking water intake for the capital city; or religious places, regional grazing grounds, or informal land tenure threatened by large-scale foreign investments feeding into the national budget), the solution is theoretically negotiated through the different governmental layers representing each – specifically scaled – interest. Although national interests generally outweigh regional or local interests, proper decentralization allows for the *tuning* of interests wherever possible (finding win-wins by relocating large-scale investments away from regional interests) or could lead to negotiation and some form of compensation for regional or local interests.

Decentralized administrative systems are generally accompanied by decentralized decision-making structures, often through some form of (democratic) societal representation. This means that, within the decentralized rules of the governance game that decentralized administrative systems represent, new actors are allowed to enter the puzzling and powering process. New actors bring in new ideas, interests, and knowledge. Decentralized administration or state structures therefore are more likely to empower other parties besides the centrally situated ruling party. In addition, decentralized administration leads to better attuned knowledge and ideas entering the puzzling and powering process (Olowu & Wunsch, 2004). Most African administrative systems are highly centralized however, and, in line with these thoughts on decentralization, international development cooperation has a history of stimulating decentralization programmes in Africa. These programmes have not always been a success however, mostly because of a general lack of implementing capacity, limited means, or lack of political will at the central level. At a general level, scholars have shown that, if corruption is widespread because many (regional) officials are corrupt, this automatically leads to, for example, more deforestation (Burgess, Hansen, Olken, Potapov, & Sieber, 2012). Nevertheless, there have been positive examples. If state capacity and checks and balances are above a certain threshold and if decentralization includes funding for example, local decision making over land use and food production and better coordination of national and local interests can become a reality (Conyers, 2007).

3.4 So, what about '*good*' governance?

In addition to decentralization programmes, development aid organizations have developed a specific, rather normatively informed approach to governance. The Good Governance approach is formalized in the agenda of the International Monetary Fund (IMF) and the World Bank's good governance indicators. Good Governance mirrors some very dominant ideas about how administration should be organized and what role administration should play in society. The basic assumption is that promoting principles of transparency, accountability, efficiency,

fairness, participation, and ownership (Woods, 2000) will improve governance. The strengthening of Good Governance in developing countries has become both an objective of, and a condition for, development assistance (Santiso, 2001). Principles that even Western democracies have difficulty upholding are then transported to very diverse institutional contexts in Africa (Andrews, 2008, 2010). Good Governance criteria assume specific formalized relations between administration, society, politics, and expertise that typically mirror the characteristics of many European state traditions; e.g. a depoliticized role for administration, accountability to politics or to society more directly through enhanced transparency, some degree of free societal competition over which societal interests are to be served, and the organization of scientifically credible knowledge from organizations at some distance from policymakers. African governments are different however, and, regardless of their scores on the Good Governance criteria, they appear to be more or less effective (Andrews, 2010). Furthermore, governance in Africa is very largely informal or at most polycentric, and difficult to align with the formal character of Good Governance. As shown in the previous sections, governing land use and food production can be characterized as the instrumental side of governance, or the capacity to diagnose, design, and implement. These issues are not covered by the Good Governance agenda.

Good Governance as used by many development agencies seems to have a more political meaning. It seems akin to the concept of governance adopted in management studies or as used in corporate discourse about how companies should treat their employees and what formal rules to adopt as 'decent' behaviour; e.g. no corruption, transparency about salaries, good work–life balance for employees, behaving in an environmentally friendly manner. In other words, governance as adopted in the development discourse is synonymous with 'good' *formal* practice. Pleas for Good Governance seem to contradict more academic definitions of governance as the *informal* network-oriented steering discussed in section 2. See Table 3.1. Discussing Good Governance in relation to African countries therefore theoretically seems to suggest that African states are viewed as international corporations that should *formally* treat their employees in line with certain corporate standards. Although treating one's citizens in line with certain 'good' standards is definitely a noble thing, which from a political or a humanitarian perspective can be highly relevant for many African governments, it does not reveal much about the capacity or the effectiveness of African governments in dealing with land use and food production as national interests (Andrews, 2010).

Table 3.1 Good Governance vs. the academic concept of governance

Good Governance	**Polycentric and decentred governance**
Prescriptive	Analytical
Normative	Neutral
Formal	Informal

3.5 Conclusion: how to understand African land use and food production from a governance perspective

We started this report by noting the widely diverging trends in land use and food production, both between Asia and Africa and among African countries (Huisman et al., 2016). The increasing awareness among scholars stressing the importance of institutional context and governance for understanding land-use change and food production (Lambin et al., 2001; Ruttan & Hayami, 1984; Sheahan & Barrett, 2014), together with the large differences between neighbouring or biophysically rather similar countries, prompted the following

questions: 1) How can governance be understood in an African context? 2) How does African governance relate to African land dynamics and food security from a cross-continental comparative perspective? 3) How can country-specific trends in food production, food security, and land dynamics be understood from a governance perspective? We have shown that governance in Africa resembles a rather odd case from a cross-continental perspective. In particular, the relatively weakly developed administrative systems and the traditionally relatively local-scale institutional context shape a large part of African governance. We have shown that the differences in food production trends between Asia and Africa can to a large extent be explained by the differences in administrative systems. Among African countries, these differences are more complex and nuanced however. Nevertheless, we have shown that, from a theoretical perspective, there is a lot of variation in how African administrative systems operate and deal with the public interests of land use and food production.

In section 4, we elaborate on the ways in which development aid programmes have dealt with public administration in Africa, after which in section 5 we introduce a diagnostic approach to dealing with the important issue of public administration in Africa. In order to do so, we make a rough classification of the variety of African public administrations that might be a starting point for understanding the origins of the variety in land use and food production patterns. In making the classification, we follow Painter and Peters' classification of administrative systems (Painter & Peters, 2010). Because African administrative systems in general are of a special neo-patrimonialist type, in their typical centralized, politicized, clientelist, and 'alien' nature, a couple of indicators can be developed from Painter and Peters' framework that have the power to assess differences in the role played by administrative systems in African land-use management and food production. We show that five indicators are of special importance: 1) how administration is related to politics, or whether administration functions as an independent organization addressing sustainable land management as a national interest; 2) the degree of centralization and decentralization, determining the extent to which scale issues in land-use management will lead to more or less mediated forms of conflict; 3) whether there exist forms of state–society interactions, determining the societal fit of policies and regulation; 4) the type of knowledge organization, determining a government's capacity to stimulate agricultural innovation; and 5) the role of the market in governing, determining who does the job. Having elaborated on these indicators, we formulate seven archetypical African bureaucracies and their consequences for better tailoring intervention strategies that fit the governance reality.

4 African agriculture, administration, and foreign aid

4.1 African governance traditions and development aid: a case of crossed wires?

The example of the Asian Green Revolution given in the introduction to this report shows how an internationally funded, scientifically developed intervention could halve Asian famine in less than two decades (World Bank, 2008). This was to a large extent facilitated by the relatively homogenous wet-rice-based nature of Asian agriculture, but also by the existence of administrative systems capable of 'unrolling' the intervention with an almost military precision (Brandt & Brüntrup, 2002). In theoretical terms, the example illustrates how a 'coincidentally' rightly tailored intervention fitted both the biophysical conditions of the existing Asian food

production system and the strong top-down administrative traditions of some large Asian states at that time. Furthermore, accountability to donor countries or recipients was not so much an issue. Some authors claim that the Green Revolution has to be viewed as part of a Cold War strategy (Perkins, 1997). For strategic reasons, the West wanted Asian populations not to choose Communism out of despair and funded the development of these new crop varieties. In a way, improving food production became a factor in winning a war and therefore did not lead to political debate in the donor communities.

Contrary to many contemporary political debates on equity issues, environmental issues, and sovereignty issues associated with today's development aid, implementation of the Green Revolution followed what some refer to as a logic of war in which the ends justified the means (Hazell, 2009; Warner, 2008). Despite negative trade-offs like environmental pollution and the marginalization of small farmers, the strong top-down recipient administrative systems could do what they were good at: large-scale implementation (Hazell, 2009). The coincidental combination of a homogeneous wet-rice-based food production system, a bundle of scientifically developed innovations, top-down recipient administrative systems, and a logic of war among the donor countries shows that foreign interventions to improve food production can be very influential.

Improving food security through foreign-funded, or even foreign-managed, interventions has not always led to governance success however. One could argue that this is for the better. Along with the effects on food production figures at macro level, the Green Revolution had its downside. As indicated above, it was not outstanding for its environmental friendliness or inclusive character (Glaeser, 2011; Pearse, 1977; Redclift, 2010). More debate in both donor and recipient countries could have yielded approaches better fitted to the local contexts. This is not to say, however, that foreign-funded implementation of large programmes dealing with national-scale issues has a good track record anyway. As already discussed, national-scale public goods or collective action problems are generally dealt with by national state bureaucracies. Sovereign national governments generally set the agenda and often allow for some form of interest intermediation between specific societal interests and the national interest. Administratively speaking however, for donor agencies, development cooperation is largely an internal affair (Lieshout et al., 2010). Agenda setting, accountability, expertise, and even cooperation with the donor society are often organized within the institutional settings of the donor countries.

Contrary to the Green Revolution's Cold War logic, in times of 'peace' donor governments set goals according to priorities determined by donor parliaments. Donor governments are therefore accountable to these parliaments – parliaments that are alien to the recipient administrative systems, not to mention the local societal context. In addition, governments might cooperate with NGOs for implementation; these NGOs often stem from donor countries as well. Although NGOs liaise with civil society organizations in recipient countries, they mostly have their own formal mechanisms for accountability to the administrative systems of their donor countries. In terms of expertise, most donor governments have their own expert organizations (for the Netherlands, Royal Tropical Institute and NCDO; for Britain, DIFID; for Germany, GTZ) (Lieshout et al., 2010).

It is not only existing African administrative systems, as elaborated earlier, that might stem from administrative traditions alien to the African contexts (Hyden, 2010); donor-funded intervention strategies might also function according to alien traditions in administration. Furthermore, donor-funded intervention strategies need causal policy theories, theories of change, which necessarily allocate specific preconditioned characteristics to the existing administrative systems. In section 4.2, we elaborate some of the approaches through which donor-funded programmes have dealt with this complexity of different sovereign

administrative contexts and the consequences that this has had for the implementation of large donor-funded programmes aimed at national interests like sustainable land-use management and food security.

4.2 Foreign interventions and African administrations

4.2.1 Aligning with alien administrative traditions

The first approach to dealing with donor countries' administrative traditions versus the weak traditions in administration in Africa, is the alignment of development aid practices with the administrative logics back home. As indicated in the previous sections, priorities of 'what is important for whom' is defined by political debate in the donor country, or by state–society relations through routinized interaction patterns between the administration and civil society (NGOs). What works is scrutinized by administrators and experts in the donor administrative system, even the duration of the projects is often determined by the length of a governmental term, and if the donor parliament changes its mind, development projects are relabelled, relocated, or simply stopped (Lieshout et al., 2010). Although pragmatic, this approach is not likely to be sensitive to the issues of uncertain knowledge, competing claims, and views across sectors, scales, and the recipient society as a whole. These are the very issues that are often associated with what makes food security a complex issue requiring (local) embeddedness of (recipient) administrative systems dealing with issues like property rights, R&D, or extension as a national interest.

4.2.2 Blueprinting alien administrative traditions

After the Green Revolution, foreign aid and financial assistance to development countries came with a set of preconditions (Lieshout et al., 2010; Rodrik, 2010). A pivotal ideology in this context has been the Washington Consensus, a doctrine adopted by most Breton Woods institutes from the 1990s onwards for allocating financial support to African states. In its broader agenda for economic growth, this Washington Consensus prescribed a specific role for administration and a specific relation between administration and society. Preconditioned approaches to administration like administration withdrawing from productive sectors like agriculture or specifying that subsidies should be turned into investments in specific sectors mirror traditions of administration alien to Africa and more common in contemporary Anglo-Saxon environments. The doubtful – to say the least – results of this doctrine made the Washington Consensus fall from favour at the beginning of the 21st century. Some scholars claim that the Washington Consensus had devastating effects on African countries' food production. The withdrawal of administration from agriculture meant that the production system lacked investment and governmental guidance at a time in history when it needed it most (Kydd & Dorward, 2001). Nevertheless, one of the still dominant ideas about how administration should be organized and what role administration should play in society can be found in the Good Governance agenda of the International Monetary Fund (IMF) and the World Bank, discussed in section 3.4.

4.2.3 Ignoring administrative traditions

Finally, many donor-funded strategies for improving food production systems hardly take administrative traditions into account at all. In these often less programmatic and more project-based cases, development cooperation is organized by providing assistance via generic instruments that are used regardless of the administrative context. A contemporary intervention strategy of donor countries and international NGOs is to increase smallholders' access to technology, inputs, and markets with the aim of alleviating poverty and increasing food security, often through so-called value chain collaboration beyond the chain (Bitzer et al., 2011; Ros-Tonen et al. 2015; Bitzer & Glasbergen, 2015; Bouma & Berkhout, 2015a). These

types of partnerships are understood as collaboration between different value chain actors, often combined with NGOs or occasionally governmental actors (Ros-Tonen et al., 2015; Helmsing & Vellema, 2012). The basic premise of the approach is twofold: 1) by utilizing the complementary resources and capabilities of actors from different societal spheres and sectors, it is possible to address societal challenges that actors would not be able to deal with individually; 2) businesses need to have an active role in addressing societal challenges as a prerequisite for well-functioning markets and growing economies (Bitzer & Glasbergen, 2015). Despite positive expectations and fit with a donor-country discourse that questions formal cooperation with 'corrupt' African governments, the additionality of these value chain partnerships is at best unclear. Some authors argue that these approaches are not able to address the systemic causes underlying the severe social, economic, and environmental sustainability challenges in value chains (Banks & Hulme, 2014), that risk, cost, and benefits are ambiguously allocated across the partners involved, and that public values are often meagrely addressed in these partnerships (see also: Bouma & Berkhout, 2015a; Vink & Schouten, 2018).

5 A need for institutional diagnostics

5.1 Diagnostics before prescription

What the three approaches discussed in section 4.2 show is that the tension between foreign administrative traditions operating in different sovereign nations is dealt with pragmatically. Although donor countries and organizations might acknowledge the capacity of recipient governments to act as sovereign decision makers, in their practices donor countries (have to) follow administrative traditions alien to the recipient countries. A common denominator of the three approaches discussed is the *assumption* about the role that administration should play and the type that it should be. Despite the variety in institutional contexts in Africa, the role and type of administration adopted in the development programmes discussed is often *blueprinted* on the basis of administrative traditions alien to the African context. History shows, however, how blueprint approaches are likely to lead to disappointments, as the blueprint approaches of the Green Revolution and the Washington Consensus did in Africa.

Instead of aligning, blueprinting, or ignoring existing (weak) administrative traditions, a better approach would probably be what Rodrik (2010) calls *diagnostics before prescription*. In his macroeconomic analysis of development in general, Rodrik (2010) explains national economic success as a matter of national 'self-discovery' of what an economy 'is good at' at each specific stage of development. Rodrik contrasts these diagnostics with blueprint-thinking following from the Washington Consensus. Similar to how Rodrik and others (Hausmann, Rodrik, & Velasco, 2006; Rodrik, 2010) propose to diagnose what an economy is good at, we would like to propose an approach that allows development cooperation to diagnose how each institutional context – including the administrative system – works from the perspective of sustainable land-use management and food production (see also: Schouten, Vink and Vellema 2018). In line with Rodrik's proposal, diagnostics could yield a list of priority issues that form the bottlenecks for more effective governance in each of these unique institutional contexts. Before formulating archetypical institutional contexts and administrative systems that might guide the development practitioner in his or her diagnostics, we start with some basic concerns that must be addressed before interacting with recipient administrations' land governance.

5.2 Governance for sustainable land-use management: the basic concerns

If sustainable land-use management is the goal, be careful about referring to ideologically informed remedies. As history shows, most of these remedies and politically informed wish lists do not fit the variety of trends in food production. At a larger scale, the differing food production history in Africa and Asia shows that government institutions might play a large role in how land dynamics and food production play out. This leads to the realization that: 1) sustainable land-use management requires a focus on the role of governance; 2) although precise explanations behind the variety in trends discussed by Huisman et al. (2016) are difficult to distinguish, our analysis shows variety in government structures, and therefore one-size-fits-all governance approaches are unlikely to work. Formulating land-use management interventions without taking the variety of institutional contexts into account is like ignoring infrastructure when designing cars. In line with earlier studies (Rodrik, 2010; WRR, 2010), this points to a need for country-specific institutional diagnostics before the prescription of issues to be addressed, approaches to be adopted, or models to be applied. If diagnostics become part of development interventions, we suggest taking the following steps into account.

5.2.1 Distinguish between *instrumental* and *political* aspects of governance

The essential role played by governance for understanding and effectively intervening in land use and land-use change is built on two fundamental aspects that make governance a collective steering tool. Governance is about organizing knowledge, ideas, values, and interests. Governance therefore is about *puzzling* over what is at stake, and what that might mean for society. At the same time, governance is about organizing *power* to get things done. Without processes of powering to get things done, governance would become a gratuitous intellectual thought experiment, incapable of solving societal problems or serving specific interests. As governance activities, puzzling and powering cannot be seen independently. A process of puzzling is likely to yield new actor coalitions and power configurations. At the same time, a process of powering is likely to yield new ideas of what is actually at stake. Many scholars and NGOs stress the political consequences of introducing seemingly value-free ideas, technologies, methods, and management. Although the interlinked nature of puzzling and powering confirms their concern, it is wise to distinguish between the political and the instrumental side of both puzzling and powering. Introducing, implementing, and maintaining a law that protects vulnerable groups from exclusion requires smart puzzling, but especially requires a lot of powering to get the legal mechanisms in place. Similarly, the introduction of new crop varieties, extension services, or a national system of land administration requires smart puzzling to build interventions that fit the context, but at the same time requires the organization of enough power to put the interventions in place. Focusing on the inherent political trade-offs that governance, governance approaches, or cooperation with existing governance arrangements might entail can easily jeopardize the instrumental side of governance. Although (potential) political trade-offs of a governance intervention are easily addressed, the instrumental aspects of how to implement, and how to maintain, a specific governance approach is much more difficult and in itself requires thorough diagnostics (or puzzling). Only then can the instrumental side of governance be fully utilized; this is essential for actually putting things in place and going beyond governance as a gratuitous intellectual thought experiment.

5.2.2 Good governance: do not confuse 'good' with effective

Good Governance first of all fits a normative plea for governance that focuses on political trade-offs. The word 'good' suggests that there is a universal 'good' way of organizing governance that has the same effects everywhere in terms of political trade-offs. Similarly, the

operationalization of Good Governance by international organizations such as the World Bank, donor agencies, and many international NGOs is not very specific in how it should be applied in which institutional context. In contrast to the context-specific machinery that shapes the *instrumental* side of how governance works and gets things done, the Good Governance concept not only focuses primarily on the political trade-offs, but also does this in a highly prescriptive fashion. As regards the institutional side of land governance, it should be noted that organizing things according to Good Governance principles has no conceptual –let alone proved – link with the instrumental side of governance. In other words, adopting a Good Governance approach does not guarantee any effects in terms of the governance capacity to implement, or maintain, for example, land administration or extension services.

5.2.3 Different problem scales require different scales of governance: choose your scale of concern

In terms of the governance of land and land use, scale is a second pillar influencing a proper understanding of how governance works and could be affected. Different geographical scales manifest different types of problems; and, similarly, different societal scales have different interests. At a national scale, a lack of food security or a loss of biodiversity might be high on the political agenda, just like national security, national budgets to maintain national infrastructure, or bilateral trade relations with neighbouring countries. At an instrumental level, these issues are best served through governance that has the capacity to puzzle over national issues and that is powerful enough to implement and maintain these issues at a national scale. Working on a local scale to address national interests might lead to locally legitimate approaches, but the relevant administrative system might not have the capacity to implement large things. In addition, this might lead to large coordination problems and high costs in the absence of economies of scale. Similarly, a nationally centred governance approach to deal with local interests might not be the right approach to deal with the design and implementation of agricultural extension. Nationally designed extension services might end up generalizing local interests and in misfits with the local context. At an instrumental level, nationally centred governance to deal with local interests might lead to one-size-fits-all solutions at a national level.

5.2.4 Pay public administration the attention it deserves when large-scale policy issues are involved

From an instrumental point of view, administrative systems or bureaucracies represent the typical bundles of institutions that are capable of implementing large things. Whether we discuss national interests, problems that crystallize at a national scale, or the role that the nation state plays in development at a national level, bureaucracies are the designing and executive sets of rules, routines, and organization that work for the state. This makes bureaucracies one of the largest and most powerful agencies at the national level. Although bureaucracies in Africa are often associated with inefficient, non-transparent, and corrupt state agency, it should not be forgotten that, in a situation of societal fragmentation and political turmoil, bureaucracies are often the institutional contexts that still contain pockets of productivity for designing, implementing, and maintaining policies, regulations, and instruments that go beyond the level of community or village interests (Muilerman & Vellema, 2017). In addition, bureaucracies – at least officially – represent a national interest and provide some form of stability, e.g. ownership, public services, infrastructure. Therefore, a public focus and public investment in agriculture – as African governments agreed upon in the Maputo declaration (http://www.un.org/en/africa/osaa/peace/caadp.shtml) – seem wise. For accountability reasons however, donor agencies might be tempted to rather align development cooperation activities with the donor country's administrative logic. Or donor agencies might blueprint an alien administrative logic for the recipient state organization to enhance accountability back home, or even ignore recipient state organization and bureaucracy altogether. From an instrumental point of view however, it should be a priority to cooperate

with recipient bureaucracies whenever possible and politically acceptable, and to stimulate proper investment in agricultural development and its national public institutions.

5.2.5 When dealing with national systems of public administration, be clear about the 'politics of scale'

At a regional or local scale, some national interests might coincide with regional interests. Infrastructure might serve a regional interest to improve its trading opportunities with the national capital. On the other hand, local farmers might lose their land because of the construction of roads and other national infrastructure. Similarly, bureaucracies leasing out land to meet national targets for infrastructure to improve trade and food security might compete with the interests of local herders using these lands for their cattle. These competing interests illustrate a so-called *politics of scale* inherent in national bureaucracies. Centralized national bureaucracies generally deal with national interests, whereby national interests often outweigh local or regional interests. When choosing to work on national food security through nationally governed programmes, do not expect these programmes to automatically serve local interests as well. If local interests are involved, such as maintaining access to communal land for traditional staple crops or grazing, do not expect this to automatically lead to better food security, trade, or GDP growth at a *national level*. In a similar vein, the Dutch Scientific Council for Government Policy wrote for example in 2010 that focusing on Africans' individual (health) issues might be a good way of working from a humanitarian perspective, but it is not very likely to be the most effective way of improving countries' capacity for working towards national interests like employment, infrastructure for trade, biodiversity, proper agricultural extension, or food security for all citizens (WRR, 2010; Lieshout et al., 2010). In line with the WRR recommendations, if you choose to cooperate with bureaucracies, do not claim that this will lead to a better situation for all land users. Conversely, if you choose to cooperate with local organizations or initiatives, do not claim that this will contribute to the national interest.

5.3 Institutional context and food production: towards a typology for diagnostics

To address the basic concerns entailed in African governance and administration, we have developed a basic diagnostic framework to more specifically assess the appropriate type of governance for sustainable land-use management and food production in differing circumstances. As discussed earlier, we focus on the instrumental side of governance. We fully acknowledge that such an instrumental approach will always have smaller or larger political consequences for land use and food. In the following diagnostic framework however, we do not aim to assess the political consequences of governance, but focus rather on its instrumental side. What do different institutional contexts and administrative systems imply for governing land and food production; and what approaches can be adopted to tackle bottlenecks and make these contexts more effective in reaching national goals like sustainable land use and food production?

5.3.1 Dealing with a local-scale (informal) institutional context: invest in a proper understanding of the sociotechnical system

As discussed in the previous sections, African state powers to implement large things remain relatively underdeveloped compared to those of countries on other continents. Their underdeveloped bureaucratic capacity makes the local-scale institutional context relatively important for understanding how things work in Africa. This has led to an array of studies assessing local institutional conditions and how these conditions constrain human behaviour in agricultural development (see for example Acemoglu et al., 2014; Durand-Lasserve & Royston, 2002; Ellis, 1993; Helmsing, 2003; Helmsing & Vellema, 2012; Lambin et al., 2001; Leach,

Mearns, & Scoones, 1999; Lund, 2006; Ruttan & Hayami, 1984; Voors, Turley, Kontoleon, Bulte, & List, 2012). The local institutional context appears highly important for assessing what local collective goods, like land tenure, food security, agricultural innovation – but also trust and economic exchange – look like and how they develop over time. As discussed in previous sections, the variety is so large that, in terms of diagnostics, we can go so far as to state that local institutions matter, especially when local-scale interventions are being planned. The large variety in terms of both nature and scale makes it difficult, however, to distinguish archetypical contexts. For local institutional contexts, we make a couple of suggestions. What should be kept in mind, however, is that institutional change does not come suddenly. Neither is it likely that the local institutional context will change when the change is planned by international agencies or national bureaucracies. Even in cases where new institutional contexts are introduced, existing local contexts are likely to persist parallel to new institutional arrangements, leading to forms of institutional bricolage, twilight institutions, or even legal pluralism when regulation is involved (Cleaver, 2001, 2002; Lund, 2006; Meinzen-Dick & Nkonya, 2007). Above all, do not expect changes in local-scale institutions to have large-scale effects.

Institutions' resistance to change does not mean, however, that local institutions do not change at all. There are some characteristics of local institutions that can be taken into account in the diagnostics of local institutional contexts. If the objective of institutional change is to improve land governance and food production, long-term inter-organizational cooperation can lead to what is referred to as proto-institutions (Lawrence, Hardy, & Phillips, 2002). Proto-institutions are institutions in the making. They are prolonged inter-organizational collaborations that create trust and routine and have the possibility of becoming real institutions, if they are prolonged long enough. The potential for inter-organizational cooperation to develop into proto-institutions is highly dependent on the embeddedness and involvement of the cooperating organizations. Hence, short-term cooperation between NGOs or business and local African organizations can be diagnosed as *not very likely* to result in proto-institutions or the beginnings of institutional change (Bouma & Berkhout, 2015b; Hospes, Dewulf, & Faling, 2016). Prolonged stable forms of inter-organizational cooperation, or programmatic cooperation rather than project-based cooperation, might be a promising alternative to create proto-institutions or sustained institutional change.

Local institutions guide and constrain local actors' behaviour. Most local institutions, when dealing with land-use management and food production, are in tune with the local biophysical and technical context. With regard to irrigation schemes, the agreements on who gets water when and who is responsible for managing which sluice-gates are to a very large extent codetermined by the technical design of the irrigation system. Similarly, local agreements on how land is managed and how crops are harvested, transported, and stored all partly depend on the technical characteristics of the crops and what the technical characteristics mean for society. Specific crop varieties have specific characteristics and are therefore used by specific actors for specific purposes. This all shapes more local-scale sociotechnical systems, which are built largely on the interplay of institutions, technicalities, and specific cultural values (Mollinga, 2003; Veldwisch, 2006). Interventions by international companies in these traditional cropping systems – and for example the introduction of new crop varieties that have a greater market value – might clash with the existing sociotechnical system. The characteristics of new crop varieties might not fit the institutional context that guides and constrains local food production. When land-use interventions are planned for by international companies or NGOs at a local African level, be aware of these sociotechnical systems and use them as an indicator for diagnosing the chances for failure and disappointment.

5.3.2 Diagnosing national systems of public administration: variables and implications

Although local institutional context, business, and food chains represent concrete tangible objects that at first sight seem to affect sustainability issues directly, intervening in local contexts does not lead directly to better management of land use and food production as a national interest. In addition, market mechanisms are not *per se* the most likely mechanisms to manage public goods, especially when a longer-term interest is involved. Not surprisingly, in most developed nations these issues are dealt with by large-scale collective action, mostly in the form of government bureaucracy or governmental regulation. Approaching national land dynamics as a governance challenge regarding a national interest therefore makes cooperating with African bureaucracies likely. Furthermore, bilateral development cooperation mostly involves some form of agreement between donor and recipient government organizations. Both content-wise and from a pragmatic perspective, focusing on the role of recipient governments and, more precisely, the recipient bureaucracy can be a serious advantage.

A lot has already been said about African bureaucracies in a cross-continental perspective (e.g. African bureaucracy compared with Asian bureaucracy), but African bureaucracies differ among one another as well. As Booth (2012) has indicated, the more precise institutional organization of government matters for how development plays out as a collective action problem. In line with Booth (2012), we have distinguished specific public administration characteristics that in an African context are likely to matter for how governance of land and food production play out. To do so, we referred to Painter and Peters' (2010) and Peters and Pierre's (2016) cross-national classifications on how bureaucracies function in general (see section 2.4). We distinguish five variables that are relevant for the African context with its hybrid governance systems (Acemoglu et al., 2014; Acemoglu et al., 2000; Hyden, 2010); these are presented in Table 5.1. In different configurations, the five variables yield seven archetypical African bureaucracies that are relevant for land use and food production; these are presented in Table 5.2. We first discuss each variable, its importance for land use and food production, and the problems associated with it.

Table 5.1 Bureaucratic variables determining African archetypical bureaucracies

Bureaucratic variable	**Matters for…**
Degree of centralization	'Politics of scale' in governance
Type of state–society relations	Legitimacy and societal fit of governance
Degree of politicization of bureaucracy	Professionalization, implementation, self-diagnostics, and the articulation of national interests versus actor or sector-specific interests
Type of knowledge organization	Capacity for self-diagnostics, degree of plurality, and implementation capacity
Role of the market in governing land	Importance of legislation for doing business

Degree of centralization determines the extent to which regional interests are structurally taken into account in developing policies. Regional and national interests are often in competition: improving national food availability through the introduction of large-scale mechanized farming is not necessarily in the interest of local smallholders; and improving infrastructure to increase trading options does not necessarily benefit all regions equally. Some regions will profit more than others, and some might even suffer by losing agricultural land or from changes in regional prices. Decentralized bureaucracies are more likely to adapt or mediate this politics of scale.

Type of state–society relations determines how national interests are mediated with specific societal interests. Whereas in many liberal democracies this mediation takes place

either through parliament or direct mediation with societal interest groups, in many developing contexts, especially with a colonial background, bureaucracies have less well organized relations with society. The patrimonial or clientelist aspect of many African bureaucracies, however, shows signs of interest intermediation between state and specific societal interests. In general, this is not a very transparent way of interest intermediation and is mostly framed by Western donor agencies as various degrees of corruption. If state–society relations are not well organized, or largely invisible, this might lead to 1) a limited societal fit of national policies and 2) limited societal legitimacy of national policies, especially if specific societal interests are not taken into account.

Degree of politicization of bureaucracy determines the extent to which bureaucracies are likely to be professional organizations with an instrumental focus capable of weighing up a multitude of options, instruments, and governance approaches, or whether they are primarily extensions of political elites sticking to single ideological approaches. In addition to single ideologically flavoured approaches, highly politicized bureaucracies might show a tendency towards serving specific rather than national interests. Professional depoliticized bureaucracies that are capable of handling knowledge, options, and approaches are more likely to be able to self-diagnose the type of governance that is more likely to be effective or efficient than other types. In that sense, these types of bureaucracies are also more likely to have the capacity to effectively weigh up options and implement policies and regulation.

Type of knowledge organization determines the extent to which knowledge stems from outside the bureaucratic organization or whether it is mainly developed from within. If knowledge is developed outside the bureaucratic organization, such as by (international) consultants, external scientists, or think tanks, knowledge is more likely to entail a plurality of disciplines, approaches, and solutions. If knowledge is developed more closely with, or even from within, the bureaucracy, knowledge is more likely to be less pluralistic in nature and more 'instrumentalized' in underpinning pre-set goals. Knowledge developed from within bureaucracies is often better employed in policies however. These consequences mean that the type of knowledge organization might affect the capacity of a bureaucracy to self-diagnose the appropriate governance approaches to take to improve food security or to sustainably manage land, and therefore improve bureaucracies' effectiveness as a whole.

5.3.3 Dealing with public administration: archetypes and approaches

The general weakness of bureaucracies in African countries already indicates that not all variables are likely to be well developed in each African administrative system. Proper diagnostics of the type of bureaucracy at issue might allow for approaches in development cooperation that either lead to more effective cooperation or even improve the workings of the African bureaucracy itself in dealing with land-use issues as a national interest. To facilitate this, we have developed seven archetypical African bureaucracies, in which the puzzling and powering (governance) over national interests takes place. We developed these seven archetypes from common combinations of the bureaucratic characteristics discussed above. Within each archetypical bureaucratic context, puzzling and powering will have different characteristics and outcomes. Following Rodrik's (2010) ideas on diagnostics, each archetypical bureaucracy could be diagnosed for its own bottlenecks in relation to, for example, improving its agriculture sector, setting regulations for more sustainable land use, or working on knowledge and technology that fit a specific country context. This does not mean that other issues are not relevant, but, given the often limited available resources for international development cooperation, we suggest focusing on the bottlenecks that emerge from the diagnosis of specific elements of an archetypical bureaucracy.

Because bureaucracies are not a given, but develop over time, or adapt to changes in society or the political landscape at large, bureaucratic typologies should always be diagnosed in a place- and time-specific manner. Consequently, the proposed archetypes do not fully fit specific African countries. We make suggestions about what country seems to fit with which archetype, but, because of the heterogeneity and the complexity of bureaucracies, the archetypes should be used as guide posts only and not be applied without thoroughly reviewing each bureaucratic context locally. For international development cooperation, each archetype fits (a mix of) suggested development approach(es) to enhance land governance.

Table 5.2 Archetypical African systems of public administration and suggested modes of cooperation

Bureaucratic archetype	**Examples**[a]	**Approaches**
1. **The Weberian ideal**: Decentralized depoliticized administration (administrative business as usual)	• South Africa • Botswana	Focus on learning to increase the adaptive capacity within the Weberian machinery
2. **The developmental state**: Decentralized politicized administration (plurality issues in knowledge and self-diagnostics)	• Ethiopia • Rwanda	Focus on professionalization, possibly through cross-scale national working groups on, for example, agricultural development or land administration (possibly find inspiration in Dutch polder model and cooperation with both regional interest groups and knowledge organizations)
3. **The bureaucratic state**: Centralized depoliticized administration (scale issues)	• Egypt	Focus on scale issues – possibly through proper land administration, which could provide local players a legal position in land governance
4. **The 'typical' African state**: Centralized politicized administration (professionalization and implementation issues)	• Ivory Coast • Guinea • Cameroon	Focus on professionalization – search for pockets of effectiveness: long-term cooperation with key figures in administration Focus on some form of plurality through cooperation with elites close to administrative leaders or authoritative organizations like local universities, research organizations, or technical schools Focus on plurality through training the political opposition to ask the right questions about food security and land-use change, and to cooperate in a productive manner
5. **The predatory state**: Centralized politicized administration – largely independent of society (legitimacy issues and lack of societal fit)	• Eritrea • Zimbabwe	Focus on non-competing state–society interests to work on a national interest without jeopardizing legitimacy towards the state leaders. For example by finding win-wins for the state and specific societal interest groups
6. **The market-oriented state**: Limited or decreasing role for bureaucracy (legal issues)	• Ghana • Kenya	Focus on legal structures enhancing proper land administration, extension services and just business development
7. **The weak state**: Contested or absent administration (formalization issues in general)	• Somalia • South Sudan • Congo • Central African Republic	When food security is involved, align with existing informal structures

a These examples should be used indicatively. African state governance may change over time or manifest different characteristics across governance scales, or even across ministerial departments.

Decentralized and depoliticized administration: the Weberian ideal

In most well-developed liberal democracies, bureaucracies exhibit clear degrees of decentralization, allowing for interest intermediation between national and regional interests. Furthermore, bureaucracies are often largely depoliticized organizations built on some form of professional (career) bureaucrats. In general, these bureaucracies are capable of diagnosing, designing, and implementing. These bureaucracies can also to certain extent weigh up various interests and ideological approaches in terms of their outcomes and consequences, and this generally feeds into political decision making. These bureaucracies still largely resemble a Weberian ideal of professional machinery serving political decision making and implementation. Typical issues that more modern scholars address, however, concern mainly the sphere of institutional learning and policy learning. Well-working bureaucratic machinery is generally considered effective in doing things routinely, and possibly learning how to do things better. Learning how to do things in a different way or doing different things is considered a challenge however (Bennett & Howlett, 1992; Pahl-Wostl, 2009); and it should not be forgotten that this represents mainly a Western ideal of policymaking. China, for example, has a much less depoliticized bureaucracy in the sense that, with the one party system, bureaucracy fades into the political system. Nevertheless, Chinese bureaucracy has still proved to be very effective in diagnosing, weighing up, designing, and implementing in its national interests.

Decentralized and politicized administration: the developmental state

Although bureaucracies might show signs of decentralization, possibly through a federal state structure, a decentralized organization of administrative regions, or a regional political representation in decision making that directs bureaucracy, bureaucracies might be politicized in the sense of being steered by the single political party in place, or of most (high level) civil servants being political appointees. Consequently, a lack of plurality in policy options might be a problem. Policy options and the knowledge underpinning these options are often politically or ideologically determined and leave little room for negotiation or debate. Although China might be a classic example of a decentralized developmental state, capable of planning, and to a certain extent capable of weighing up options and intermediating between regional and national interests (Mertha, 2005; Zhang, 2006), this has not always been the case. In the 1960s, for example, famines were more common in China than in Africa. These famines resulted mainly from ideological approaches to agricultural and economic planning, for which – at that time – centralized bureaucracy was not capable of proposing alternative understandings, let alone policies. Inspiration for 'smarter' solutions had to come from outside, like the research institutes that designed the Green Revolution interventions, and, later on, the success of earlier developmental states like Korea and Singapore that became showcases for the Chinese elite. If the objective is to improve food security or sustainable land-use management as a national interest, in this archetypical developmental state case, cooperation with bureaucracies is hardly unavoidable. In developmental states, bureaucracies generally play a large role in managing resources like land. Political ideology might, however, hinder open debate with donors, let alone with the NGOs that work with marginalized groups. Debate could occur through local university elites or other more intellectually focused elites that are close to high level bureaucrats. Although this might sound like elite capture[1], it could be a very pragmatic approach to inspiring ideologically preoccupied elites when no other form of dialogue with local society or foreign donors seems possible.

Centralized and depoliticized administration: the bureaucratic state

In some cases, bureaucracies might exhibit fewer politicized characteristics and function like more or less professional organizations that are capable of pragmatically diagnosing land dynamics and food security constraints, and weighing up options in the national interest rather than from an ideological or simply political interest point of view. If these more or less

[1] Elite capture is the phenomenon of development aid or participatory approaches being captured by local elites that are very capable of participating in or organizing interventions funded by donors.

professional organizations operate in a still rather centralized fashion, or if regional interests are not being structurally incorporated through institutionalized representation of local or regional interests (through parliament, senate, or an official committee), policies and implementation might focus predominantly on national rather than regional or local interests. In relation to land-use management, this might typically lead to large, centrally planned projects, as if the land involved is *terra incognita*. In these centralized institutional contexts, land governance will amount to puzzling and powering over national issues rather than taking local or regional issues into account in the puzzling and powering process. The politics over different problem scales that is intrinsic to national planning issues is not taken into account in the puzzling over what is at stake, and therefore not in the powering process to get things done either. Policy processes are more likely to look like – theoretically well-designed – large-scale planning than a process of negotiating over issues and interests and fine-tuning interventions to what already exists on the ground. Existing land use that is not centrally planned or government controlled is therefore more likely to be ignored, ultimately leading to suboptimal interventions that do not fit local conditions, let alone local interests.

In a centralized, depoliticized bureaucracy, plurality is less of an issue from a political or ideological point of view. The focus should be on the institutionalization of debate over politics of scale. Regional interests, such as customary land use by smallholders, grazing ground, regional water resources for informal irrigation practices, regional markets and prices, and informal ecosystem services, are not being served if a national government plans a well-designed large-scale agricultural intervention, possibly in cooperation with foreign investment, to – theoretically – create employment, enhance food security, or strengthen national budgets and governmental solvency through an inflow of foreign currency. If the decentralization of governance structures is a bridge too far for foreign donor agencies to tackle politics of scale, the focus could, for example, shift to the improvement of land administration, thereby empowering local farmers by introducing legal structures that formally entitle them to their land.

Centralized and politicized administration: the 'typical' African state

After independence, many African states were faced with political opposition from the former rebel groups that strove for independence. Furthermore, most bureaucratic leftovers from colonial times are centralized; and limited means, infrastructure, and control makes decentralization a complicated and potentially dangerous business. Provincial units that coincide with ethnic or societal lines might create opposition. Therefore, many African bureaucracies are characterized by high degrees of both centralization and politicization (Hyden, 2010). As discussed earlier, these states exhibit limited formulation of national interests but rather political or ideological interests, and employ public means for political purposes like staying in power rather than acting in the nation interest. In these bureaucratic contexts, plurality of both knowledge and ideas is an issue, just like professionalization and the capacity to diagnose and weigh up options, and the bureaucratic power to get national interests onto the policy agenda. The first deficiency in these bureaucracies is likely to be a lack of professionalism, undermining possibilities for diagnosing, designing, and executing effective land-use policies. Bureaucrats are often politically appointed rather than hired for their skills and expertise, with political appointment emanating either from the dominant political party or from clientelist or ethnic structures. In terms of development aid, it is suggested either to work on long-term professional relations between African bureaucracy and for example donor country bureaucracy or any other professional organizations, or to search for pockets of effectiveness in bureaucracies. Bureaucracies are not homogenous, and some departments are, for pragmatic (or political) reasons, more capable than others of formulating policies that actually work or make sense in light of a national interest. Furthermore, well-paying foreign donor agencies or NGOs should be modest in hiring highly qualified staff, because this undermines the government as an employer and service deliverer. Another

priority concerns the plurality of ideas and values that guide bureaucracies. As civil society organizations are often not legitimate in the eyes of these bureaucracies, it is probably more pragmatic to work with elites that are closely linked to high level civil servants or political decision makers. As mentioned before, this may sound politically more inappropriate than it actually has to be. Work with universities, technical schools, traditional spokesmen, women, and so forth. These actors often have more power to bring new ideas and knowledge into politicized bureaucracies than activist civil society organizations, farmer cooperatives, opposition groups, and so forth have. Hence, elite capture might be a problem, but it can also be a solution.

Centralized and politicized, independent of society: the predatory state

Besides the centralized and politicized nature of the 'typical' African state, in some cases and periods, political leaders might forget all about national interests, focusing on their own or patrimonial interests, of which often the most acute is staying in power to prevent conviction, or worse, after losing power. In general, state–society relations become extremely complicated in these cases, possibly leading to suppression and violence. Intervening in these predatory states is often very difficult and requires delicacy. Any intervention that could be seen as political could be considered a threat to state powers, thereby undermining the entire cooperation. If development cooperation in this archetypical context is aimed at improving land use, the issues mentioned under the 'typical' African state are relevant here too, but attention should also be paid to finding win-win solutions between society and state powers. In most such cases, addressing competing claims will lead to more conflict or tension between state and society; so, pragmatically speaking, a start could be made by searching for efficiency solutions like improving science and technology, extension, or infrastructure. Both the political power and society can win from these efficiency solutions.

Limited role for public administration: the market-oriented state

Some African states function in a specifically Anglo-Saxon way. Although relatively well organized, they appear to be less interventionist in agriculture or land-use management than for example the countries that are generally characterized as developmental states or bureaucratic states. These archetypical bureaucracies explicitly leave a lot to the market, often corresponding with various types of corruption. Different than 'typical' African states, the focus in these archetypical bureaucracies in on the market, and they are embedded in market logics. Often, these are countries with a relatively longer history in market capitalism, like Kenya or Ghana and in a way Nigeria. Kenya and Ghana are clear examples of governments that do not intend to actively develop an agriculture sector, simply leaving this to the market. Similar to Nigeria however, other issues about politicization of societal issues can still be organized along ethnic and religious lines. In terms of development cooperation, these are typical countries where foreign companies could be willing to invest or to cooperate in public–private partnerships. The bottleneck in states that leave a lot to the market appears to be the legal structures that guarantee both the stability and the security of investments, as well as the legal structures that for example determine how much tax has to be paid, the legal possibilities for large-scale land acquisitions, or the extent to which these market players have to take national interests into account, for example sustainable use of land. Focusing on improving legal mechanisms might improve market conditions for foreign players and at the same time enhance the capacity of these bureaucracies to steer and guide the market towards national interests, without huge changes to their bureaucratic way of working.

Contested or absent public administration: the weak state

Some African states have little or no working bureaucracy at all, or might have a societally contested bureaucracy. In these weak states, formalization in general might be the priority issue. Because of a lack of formal structures or checks and balances, bureaucracy generally has a limited embeddedness in society, and limited or no implementing capacity (Schomerus

& de Vries, 2014). Puzzling and powering over land use and food production issues at national level becomes almost impossible because of the absence of more or less commonly accepted rules of a governance game. In other words, for such bureaucracies that are puzzling over the appropriate use of land and trying to organize power to get things done, their formal status does not have much shared societal meaning, making any state governance intervention essentially contested. Civil servants are actors like any other societal actors. This does not mean that no structure exists; land is generally governed by local or religious authorities, or decentralized parts of what looks like government. Local governance and informal institutional contexts generally exist as well. In terms of intervening in land-use governance in these contexts, it is essential to take existing informal structures on board to be effective at all. The focus could be on the formalization of existing informal structures (Hyden, 2010).

5.4 So, now what?

The archetypical bureaucracies that we have developed cannot be translated one-to-one to specific African cases. They should be seen as guide posts for diagnosing the nature of the African bureaucracy in question and for deciding which approaches to use in intervening in land use or food production. First, however, the following should be taken into account:

- First of all, governance (at national level) has more to do with national interests than intuitively might appear; this can be a promising point of departure when (long-term) sustainability issues of land use and food production are involved.
- Despite African bureaucracies' bad reputation regarding corruption and rent seeking, give them a second thought when food security and land-use management are involved. Bureaucratic operations intrinsically touch upon politics. Nevertheless, bureaucracies serve large instrumental functions as well. Bureaucracies are generally the largest entities capable of implementing large things like land administration, extension services, infrastructure, all of which are essential for proper land use and food production.
- No large things happen without government involvement: large companies might grab land, but in the end the government is the only organization at a national level that can do binding things. For example, companies depend on government for land acquisition, and farmers depend on a form of government or large collective action for private property and the ability to invest in land and to have long-term certainty of having access to the land.
- Be pragmatic; governance always has political consequences, sometimes even hindering growth or disrupting large parts of society. Nevertheless, government is the most powerful organization that is capable of implementing large things in the national interest.
- Do not confuse 'good' with 'effective' when Good Governance and governance indicators are concerned.
- Government is not a given; large differences exist in how government is organized and functions, both directly in terms of bureaucratic operation, but also in how markets are organized, of which the large differences between Asia and Africa are a prime example.
- Diagnose bureaucratic systems and their role in land governance first to find an administrative fit with intervention strategies. Differing archetypical bureaucracies point to a need for differentiated approaches. However, do not employ the archetypical governmental types as blueprints; one African government can exhibit different archetypical types in one bureaucracy, if not thematically, and different departments might function in different archetypical ways. Find the archetype that suits your aim

and approach best, or change your aim and approach according to the dictates of the institutional context.

5.5 Never lose sight of the political consequences of instrumental approaches…

Once again, with our instrumental focus on bureaucracy and institutions as rules of a governance game tackling the issue of land use, we do not aim to directly tackle political aspects of land governance like equity, empowerment, or access. The approaches address the issue of dealing with large, complex *national-scale* challenges of managing land use in a productive and sustainable way without compromising too much on biodiversity and natural capital. These challenges often require institutional contexts with the technical capacity to implement large things; contexts like bureaucracies. If a foreign agency chooses to work on political issues, be aware that there is not much evidence that these approaches lead to large improvements in the overall *effectiveness* of management of a country's natural capital at a national level. In addition, these approaches are more likely to be met with scepticism and suspicion at the political levels in charge of bureaucracies, and this might ultimately undermine the bilateral relations. Nevertheless, more bottom-up or politically inspired interventions can have direct effects on the well-being of the local people or communities targeted. These approaches, however, are unlikely to have systemic effects, as the larger institutional context is generally not within the scope of the interventions (Lieshout et al., 2010).

It should also be borne in mind, however, that, in their unique capacity to do large things, bureaucracies, as history shows, have the capacity to do things that may be devastating at a large scale. Therefore, it should never be forgotten that an instrumental focus as adopted in this report can leave devastating political effects in its wake. Hence, it is very important to focus specifically on the instrumental side of bureaucracies and institutions at large; never forget that these instrumental sides will almost intrinsically have political effects. We should not be naïve, a focus on institutional context is important, if not essential, for systemic effects; nevertheless, their effects will always entail societal winners and losers. Working with bureaucracies involves getting one's hands dirty.

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