Horizon 2020
European Union funding
for Research & Innovation

ITS4LAND
innovations for land tenure

Deliverable 7.2

Review of governance and capacity development models

31st October 2018

Version 1.0

Abstract:
This is a consolidated report on the review of governance and capacity development models as part of WP7 'Govern and Grow: Sustainable governance and capacity buildings models

Project Number: 687828
Work Package: 7
Lead: KU Leuven
Type: DEC
Dissemination: Public
Delivery Date: 31st October 2018

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Executive Summary

its4land is a European Commission Horizon 2020 project funded under its Industrial Leadership program, under an ICT call (H2020-ICT-2015) with the topic of 'International partnership building in low and middle income countries'. its4land combines an innovation process with emerging geospatial technologies, including smart sketchmaps, UAVs, automated feature extraction, and geocloud services, to deliver land recording services that are end-user responsive, market driven, and fit-for-purpose. The transdisciplinary work develops supportive models for governance, capacity development, and business capitalisation.

This deliverable 7.2 is directly linked to 'Work Package 7 (WP7) – 'Govern and Grow: Sustainable governance and capacity building' of the its4land project. WP7 deals specifically with the development of a governance model that includes capacity development models to support the implementation and evaluation of innovative tools and their use in order to meet stakeholders' needs so that the innovation process can have sustainable effects.

This report presents the deliverable entitled "Review of governance and capacity models". It is divided in 6 sections. Section 1 is "Introduction and objective", here we state that the aim of this deliverable is to review governance and capacity development models in order to create an integral model in Deliverable 7.3. Section 2, "The governance concept for the selection of the frameworks" highlights the complexity of the governance concept and presents examples of different categorisations, which have allowed the creation of various governance models. For example, "Public governance", "Good governance" and "Corporate governance". Section 3, "Methodology" explains the selection criteria for the 6 models that are presented in Section 5. Three of the selected models correspond to "Public Governance" and three to "Good Governance". After an exhaustive analysis of both the governance and capacity development literature, we concluded that in order to provide an integral model applicable for the three cases that conform this project, the best option is to select governance models that include capacity development models and consider the sustainability of the policy when implementing the land recording tools.

These two core characteristics are embedded in our selected models and are explained in Section 4. In this section, we also introduce the fit-for-purpose approach, which plays a relevant role when considering developing countries. This approach seeks to provide an answer to the inability of conventional methods that capture cadastral data to meet the existing contextual conditions due to the diversity of informal, social or customary land tenure types that are present in developing countries. We also present examples of the different definitions regarding the capacity development literature and define it as: "The development of knowledge, skills and attitudes in individuals and networks of people that are relevant for the sustained use of the land tenure tools". The sustainability of the policy is highly important, since many projects in African countries are funded by donors with a short-term impact.

Section 5 presents the 6 selected models. From the selected models, three are from a "Public governance" perspective and three from a "Good governance" perspective. The frameworks that are part of the "Public governance" approach are: 1) Framework for Understanding Policy Competences and Capabilities 2) Conceptual Framework for the Shifts in Modes of Environmental Governance and 3) The Governance Assessment Tool. These three frameworks have been applied in the in contexts that include developed and developing countries, which can facilitate their adaptation for the African context. The three selected models have proved to bring relevant insights regarding the understanding of the governance arrangement while considering the sustainability of the policy and capacity development.

The Framework for Understanding Policy Competences and Capabilities allows a better understanding of the relation state-market-network and the role of capacity development due to the dimensions that it integrates. It also has the strength of considering relevant elements for the creation of our own governance model, such as the sustainability of the policy technology and information sharing. The Conceptual Framework for the Shifts in Modes of Environmental Governance, also supports the understanding of the hierarchy-market-network and provides an understanding in the evolution of the governance model through time. This is of high relevance since in some of the selected cases, previous mapping policies have been implemented. The Governance Assessment Tool evaluates the governance arrangement through semi-normative qualities (They are called semi-normative, since their ethical value rests on the appreciation of the goals themselves). This model allows an understanding from a contextual perspective of the governance factors that can hinder or limit the implementation of technologies.

The "Public governance" models have an academic perspective while, the "Good governance" models are promoted by international organisations. The frameworks that are part of the "Good governance" approach are: 1) Multi-level Governance Assessment-OECD, 2) Framework and Guidelines in Land Policy Africa and 3) Land Governance Assessment Framework. The two last governance models have been directly applied in the African context. This includes the countries of Rwanda, Ethiopia and Kenya. These governance models also consider the sustainability of the policy, as well as capacity development. The Multi-level Governance Assessment-OECD has been applied worldwide. In this way, it has influenced the international agenda regarding specific governance elements such as transparency. The Framework and Guidelines in Land Policy Africa is one of the governance models that has been applied in the African context and it is the result of an important social agreement regarding normative expectations of Land Governance. Finally, the Land Governance Assessment Framework model is one of the most developed models applied in Africa and provides a deep understanding of land issues in the three selected cases. Finally in section 6 "Conclusion", we present in a summarising manner the elements of each selected governance model, that we are considering for the creation of our own governance model.

Keywords: governance models, fit-for-purpose, capacity development

Contents

1 Introduction and objectives

its4land is a European Commission Horizon 2020 project funded under its Industrial Leadership program, specifically the 'Leadership in enabling and industrial technologies – Information and Communication Technologies ICT (H2020-EU.2.1.1.)', under the call H2020-ICT-2015 – and the specific topic – 'International partnership building in low and middle income countries' ICT-39-2015.

its4land aims to deliver an innovative suite of land tenure recording tools that respond to sub Saharan Africa's immense challenge to rapidly and cheaply map millions of unrecognized land rights in the region. ICT innovation is intended to play a key role. Many existing ICT-based approaches to land tenure recording in the region have not been successful: disputes abound, investment is impeded, and the community's poorest lose out. its4land seeks to reinforce strategic collaboration between the EU and East Africa via a scalable and transferrable ICT solution. Established local, national, and international partnerships seek to drive the project results beyond R&D into the commercial realm. its4land combines an innovation process with emerging geospatial technologies, including smart sketchmaps (SSM), Unmanned Aerial Vehicles (UAVs), automated feature extraction (AFE), and geocloud services (GS), to deliver land recording services that are end-user responsive, market driven, and fit-for-purpose. Fit-for-purpose seeks to be an answer to the deficiencies that conventional land recording methods find in African countries.

The transdisciplinary work also develops supportive models for governance, capacity development, and business capitalization. Gender sensitive analysis and design is also incorporated. Set in the East African development hotbeds of Rwanda, Kenya, and Ethiopia, its4land falls within TRL 5-7: 3 major phases host 8 work packages that enable contextualization, design, and eventual land sector transformation. In line with Living Labs thinking, localized pilots and demonstrations are embedded in the design process. The experienced consortium is multi-sectorial, multi-national, and multidisciplinary. It includes Small and Medium Enterprises and researchers from 3 EU countries and 3 East African countries: the necessary complementary skills and expertise is delivered. Responses to the range of barriers are prepared: strong networks across East Africa are key in mitigation. The tailored project management plan ensures clear milestones and deliverables and supports result dissemination and exploitation: specific work packages and roles focus on the latter.

This document is directly linked to 'Work Package 7 (WP7) – 'Sustainable governance and capacity building' of the its4land project. In deliverable 7.1 we presented a definition of governance and capacity development. Governance was defined as: "The process of interactively steering the land tenure society to sustain the use of the its4land tools". While capacity development was defined as "The development of knowledge, skills and attitudes in individuals and networks of people that are relevant for the sustained use of the its4land tools". In deliverable

7.2, after an exhaustive literature review of both governance and capacity development models, we concluded that in order to provide an integral model, the best option is to select governance models that include capacity development models too. Therefore, Section 7.2 of WP7 deals specifically with a review of governance models that already include capacity development models to support the implementation of innovative tools by meeting stakeholders' needs. The development of these governance models show a shift from hierarchical governance approaches to more collaborative networked approaches (Van Kersbergen & Van Waarden, 2004).

The selection of governance models is a first step towards the adaptation and proposal of a governance model that include elements of a capacity development model for land tenure recording with ICT innovations. This deliverable report maintains a simple structure and consists of the following sections: Section 2) The variety of the governance concept and its models. In this section, we summarize the richness of the governance concept and the different ways in which it has been classified. Section 3) Methodology, presents the criteria that we considered for the selection of the governance models that include capacity development models. Section 4) Sustainability and capacity development from a governance perspective, states the relevance of the two concepts: Fit-for-purpose and capacity development for a governance model. Section 5) Governance models, we present the six models that we have selected and which will be the base for the development of our own governance model. Finally, section 6) Conclusions, presents the elements of each selected model, that we are considering for the creation of our own model.

2 The variety of the governance concept and its models

The selection of models composed by both governance models and capacity development elements aims to develop an integral governance model that can support the sustainable use of the innovative tools smart sketchmaps (SSM), Unmanned Aerial Vehicles (UAVs), automated feature extraction (AFE), and geocloud services (GS). This model will be aligned with the fit-for-purpose approach, since it aims to meet the stakeholder's needs in order to strengthen both the skills and the sustainability of the implementation process.

During the past decades, governance gained interest as a relevant topic of inquiry in a variety of study areas e.g., ranging from Social Science to Information Technology (IT). The shift from government to governance was initiated around 1980 through public administration and public policy debates in the context of New Public Management (NPM) reforms. This shift was characterised by a restructuring in state-society relations, regarding the competence of public managing and decision-making (Hughes, Gleeson, Legge, & Lin, 2015; Hyden, Court, & Mease, 2003). Where nation state authorities were previously the ruling coordinating and decision-making bodies, a shift towards a trilateral collaboration between nation state governors, the community and the civil society took place (Corijn, 2009). In this way, governance can be distinguished from government as not only state, but also non-state actors engaged in the governing process (M. Bevir, 2009; Goodwin & Painter, 1996; Jessop, 1997; Rhodes, 1996; Saito, 2008).

Despite these characteristics of the governance concept, there is not much consistency in its use or meaning. For this reason and the importance of the concept, many academics have tried in the last decades to categorise those understandings and meanings (Hirst, 2000; Jan Kooiman, 1999; Osborne, 2010; Rhodes, 1996). Some of the most relevant examples are Rhodes (1996), Van Kersbergen and Van Waarden, (2004), Klijn (2008) and Osborne (2010).

Rhodes (1996) identifies six uses of the governance concept and he provides a definition for each use:

1. As the minimal state: this use emphasises markets and quasi markets to deliver public services.
2. As corporate governance: this use refers to a system by which organisations are directed and controlled.
3. As the new public management: in this use steering is a synonym of governance. It includes a proposal of an entrepreneurial government. It involves a transformation of the public sector from "less government" to "more governance/steering".
4. As "good governance": this use is highly related with institutions such as the World Bank and it involves an efficient public service, independent judicial system, accountable administration, responsible to a representative

legislature, respect of law and human right, a pluralistic institutional structure and a free press.
5. As a socio-cybernetic system: for this use policy outcomes are not product of the central government actions. The central government can pass a law but this regulation has to interact with local governments, other authorities, voluntary and private sectors and at the same time they interact between each other. Each actor can participate with knowledge or other resources.
6. As self-organising networks: this use sees governance as a broader term than government. The term network is used to describe the several interdependent actors involved in delivering services.

Van Kersbergen, K. and F. Van Waarden (2004) proposes nine categories:

1. Good governance. - This meaning is mainly used by international organisations. "This usage stresses the political, administrative and economic values of legitimacy and efficiency".
2. Governing without government (International Relations). - This meaning is based on international relations theories and emphasises a lack of hierarchy.
3. Governance without government II: Self-organization. In this definition the work of Elionor Ostrom about common pool resources management is included.
4. Economic governance. - This definition is related to neo-classical economics. In this case governance is a broader concept than government.
5. Corporate governance. - It is related to the concepts of accountability and transparency in management.
6. New public management. - It is about brining management concepts from the private sector to the public sector.
7. Governance in and by networks. - This meaning includes networks from both public and private sectors.
8. Multi-level governance. - It refers to the different governmental levels and the participation of public and private sectors at those levels.
9. Network Governance-Private. – In this case, the concept is related to inter-firm cooperation.

While, Klijn (2008, p. 508) proposes four categories:

1. Governance as good governance or corporate governance. This definition emphasises the operation of the government instead of how it is organised.
2. Governance as a new public management. In this definition the role of the government should be to steer; focusing on the goals instead of prescribing the implementation process.
3. Governance as multilevel governance. In this case governance is described as multi-layer government or intergovernmental governance.

4. Governance as network governance. In this case governance takes place within networks of public and non-public actors, and the interaction between these groups makes processes complex and difficult to manage.

Finally, Osborne (2010, p. 6) offers one of the most recent classifications by synthesising the governance literature in three general categories:

1. Corporate governance: is concerned on internal systems and processes that help to provide accountability and direction to any organisation.
2. "Good" governance: includes normative models regarding social, political and administrative governance; promoted by international organisations such as the World Bank.
3. Public governance: is conformed by five sub-categories. Socio-political governance (concerned with over-arching institutional relationships), public policy governance (focused on how policy elites and networks create, interact and govern public policy process), administrative governance (focused on the effective application of public administration), contract governance (focused on the governance of contractual relationships in public service delivery and network governance (focused on networks capable of self-organisation with or without the government)(Corcoran et al., 2010) .

Each of these governance categorisations have contributed to the creation of different models that allow the understanding of reality. All these variations show the complexity of the concept and the richness of their derivative models. However, within this complexity, there are principles that reappear in the variety of definitions from different fields of inquiry. It seems like governance is mainly about 'structures and processes', 'decision-making, organising, managing and controlling' and 'actors'. Therefore, governance definitions and models commonly have those characteristics. The selected models that we will discuss in this deliverable are also including those characteristics but they are not limited to them. The selection criteria and a description of the selected governance models will be presented in section 3.

3 Methodology

Considering that Osborne offers one of the most recent, comprehensive and broad classifications of governance, our selected models can be categorised as part of: "Public governance" and "Good governance". "Corporate governance" is not being considered since we are not evaluating internal processes of corporations. In this sense, COBIT (Control Objectives for Information and Related Technologies) which is a "business framework for the governance and management of enterprise IT" (ISACA, n.d.), is an example of the type of focus, we are deviating from. The selected models are balanced between both categories public governance and good governance. This selection will permit us to consider elements from academic literature as well as from international organisations, which have played a relevant role in the implementation of land related policies in African countries. A summary of our selection criterion is presented in Table 1. The first column shows the name of the selected models. The second column shows its governance categories. The following columns show the applied criteria for the selection of the governance models. The grey cells are an indication that the model fulfils the selected criteria.

Table 1. Selection criteria of the governance models

Selected Models	Governance categorisation	Criteria considered for the selection of the governance models						
		Sustainability of the policy	Capacity development	General contextual analysis	African context analysis	Land	Technology	Hierarchy-market - network
Policy Capacity: A conceptual Framework	Public Governance Models	■	■	■			■	■
Framework for the shift of environmental governance		■	■	■				■
Governance Assessment Tool		■	■	■			■	
Multi-Level governance OECD	Good Governance Models	■	■	■		■		
Framework and Guidelines in Land Policy Africa		■	■		■	■		
Land Governance Assessment Framework		■	■		■	■		

The selection process for the models can be described in two different steps. First, we conducted an extensive literature review of contemporary publications on governance and capacity development models. The analysis included the revision of the top 50 cited governance related publications in Web of Science. Second, we narrowed our selection by preselecting those models that were meeting the governance and contextual needs described in Deliverable 2.5.

This process led us to establish a final selection criteria that we believed our own model should coincide, besides the core elements of capacity development and sustainability of the policy. They were: 1) Contextual versatility in order to adapt elements of the models to the African context or 2) Models already applied in the African context, 3) Land or 4) Technology focus, since we are dealing with land tenure recording tools and 5) Hierarchy-market-network because we want to understand how new forms of citizen-government, citizen-private companies and government-private companies collaboration works and how new relationships can be leveraged to co-produce land information. Our model in deliverable 7.3 will seek to draw on influences from the selected models in this deliverable for the its4land project .

Hence, the selected governance models were required to meet two mandatory criteria: sustainability of the policy and capacity development. The sustainability of the policy in the long-term is of high relevance to guarantee a long-term impact. Until now, many of the land projects implemented in Africa depended on external donors resulting in a short-term impact. Capacity development is also very important since, our aim is to propose a governance model which integrates capacity development elements. Also, the models should have shown adaptability to be applied in different contexts.

From the "Public governance", category and after following the process described above, we considered models that take into account the multi-level, hierarchy, market and network nature of governance as well as a technology approach. These elements can allow us to analyse the relationship between the governmental levels (multi-level), the hierarchical nature of public administration (hierarchy), partnerships between the governmental actors and private sector (market) and the relationship among the different social actors (networks). Finally, the models consider technological tool implementations. This is also relevant for our project, because we will be analysing the implementation of new technologies, which require governance adaptation processes. From the 'Good governance' category, due to its nature, we selected models linked to good practices accepted by African countries as well as models focused on land. Land governance approaches will provide valuable insights in the performance of current structures or systems of practices and processes.

Among the selected models, there are three focused on governance assessments. Two of them belong to the "Good governance" category (OECD multi-level framework and LGAF) and one of them to the "Public governance" category (Governance Assessment Tool (GAT)). Governance assessment interest started growing since the Paris Declaration in 2005 (UNDP & Oslo Governance Centre, 2009a, p. 3). They can come from many sources and for a variety of reasons (UNDP & Oslo Governance Centre, 2009b, p. 4). Nowadays, countries as well as international organisations such as UNDP, World Bank or OECD consider governance assessment valuable. Many of them have as a general objective to provide opportunities for developing certain capacities or to monitor the quality of governance (UNDP & Oslo Governance Centre, 2010). Our selected governance

models can help to identify implementation difficulties and they can also uncover the relationship between implemented policies and regulations from the policy goal perspective. In this sense, the GAT, the OECD multi-level framework and LGAF will allow us to analyse the governance system from an institutional perspective and with a specific emphasis in the implementation process of the technologies. The GAT has a semi-normative approach while the OECD and the LGAF have a normative approach, since they correspond to the "Good governance" category. The three governance assessments are useful for practitioners.

The selected models also help to increase our understanding of the needs to deal with the social innovation challenges associated with the adoption and sustainable use of the geospatial tools. However, before presenting the selected models, we will first introduce the two criteria that the six selected models include: the sustainability of the policy and capacity development.

4 Sustainability and capacity development from a governance perspective

In this section, we develop our understanding about the sustainability of the land tenure recording, tool implementations and capacity development from a governance perspective. The explanation of these concepts is important, since they are the core elements of the selected models. Both concepts are considered by the fit-for-purpose approach which will be explained in the following sub-section 4.1. The sustainability of the process explained from the fit-for-purpose approach focuses on developing countries challenges regarding the implementation of new technological tools for land administration. Section 4.2 will present a literature analysis of the capacity development concept and our understanding of the concept.

4.1 A sustainable approach – Fit-for-purpose Land Administration

Conventional land administration depends upon conventional systematic land tenure recording and mapping tools. Examples of conventional mapping land tools are theodolites, total stations, GNSS for position measurements and mapping purposes. These conventional systematic land tenure recording and mapping approaches have proven to be very useful in developed countries as they can deliver precise and accurate geospatial data. For developing countries, however, they have been found to be of limited value as coverage is more important than accuracy (Rohan Bennett, Wallace, & Williamson, 2008; Williamson, Enemark, Wallace, & Rajabifard, 2010; J. Zevenbergen, Augustinus, Antonio, & Bennett, 2013). Additionally, conventional approaches are not always appropriate to fully accommodate existing contextual conditions due to the diversity of informal, social or customary land tenure types (Enemark, Bell, Lemmen, & McLaren, 2014).

Conventional tools represent complex, time-consuming and expensive processes, which are mostly government driven, aligned with a top-down approach. In addition, developing countries have insufficient resources in economic and professional terms to conduct such methods of cadastral data capture. At this contemporary land tenure recording rate, it would take centuries to deliver adequate coverage (J. Zevenbergen et al., 2013).

Around the 2000s, as a response to the failures of several projects in delivering appropriate and adequate land recording data in developing countries, the 'fit-for-purpose' approach was introduced (Enemark et al., 2014). This approach seeks to provide an answer to the inability of conventional methods to fully accommodate existing conditions (e.g. the diversity of informal, social or customary land tenure types). Fit-for-purpose tools are therefore designed to fulfill country specific land issues, needs and capacities (Enemark et al., 2014). These tools need to be flexible in use and affordable in price. This moves away from the conventional top-down approach and is more focused on a bottom-up approach aiming to better meet the needs of the people and associated policies. Those new generation tools can

afterwards be upgraded by conventional tools as soon as high precision data is a priority (UNCTAD, 2012).

"Fit-for-purpose land administration" is a term "that indicates that the approach used for building land administration system in less developed countries should be flexible and focused on serving the purpose of the systems […] rather than focusing on top-end technical solutions and high accuracy surveys" (Enemark et al., 2014, p. 10). Fit-for-purpose is also participatory driven and strives towards including several non-governmental stakeholders in the process of decision making and delivering services. However, there is an acknowledgment that the role of the government remains crucial for accomplishing real change (Enemark et al., 2014).

Fit-for-purpose has three basic components:

1. The use of affordable modern technologies.
2. The use of a participatory approach based on a spatial framework.
3. The adoption of a legal framework with enough flexibility to implement the fit-for-purpose approach (Enemark et al., 2014, p. 10).

Regarding the modern technologies; currently, there is a growing interest for innovative geospatial tools, including examples like crowdsourcing (Goodchild & Glennon, 2010; Laarakker, Zevenbergen, & Georgiadou, 2015) or mobile mapping (Enemark et al., 2014; Hay, 2016). In this project, the land tenure technologies are: smart sketchmaps, unmanned aerial vehicles, automated feature extraction and geocloud services:

- *Smart sketchmaps* enable hand drawn non-metric spatial representations collected on a participatory manner to be converted into topologically and spatially corrected maps (R. Bennett, Wallace, & Williamson, 2008). While conventional sketchmaps purely focus on spatial information, this innovative technology also aims to capture semantic information like labels and annotations. Furthermore, the smart sketchmaps enable the integration with metric maps by providing the tools to meaningfully interpret and geo-localize hand-drawn objects (Chipofya, Sahib, Schultz, & Schwering, 2017).

- *UAVs* are fixed-wing or rotary technologies, remotely piloted, and capable of carrying positioning and imagery sensors for data collection of smaller areas of up to a few hundred hectares (Stöcker, Bennett, Nex, Gerke, & Zevenbergen, 2017). The main advantages over conventional (manned) airborne-based mapping are threefold: i) UAVs are easily deployable; ii) UAVs are able to achieve a ground pixel size of 5 cm, which can be captured for a relatively large area in a relatively short time; iii) UAVs are easy in use - with a small training effort, state-of-the-art devices can be operated, even by laymen.

- *An automated feature extraction* algorithms support image-based identification and vectorization of real-world phenomena of interest for visible cadastral boundary detection (Sophie Crommelinck et al., 2016). The

approach is most suitable for areas, in which a large portion of boundaries are visible. Visible boundaries are demarcated through objects like fences, roads or field outlines. By avoiding the need to do in-field measurements and providing an automated, transparent, scalable and flexible approach, the automatic boundary identification and extraction can save money and time (S. Crommelinck, Höfle, Koeva, Yang, & Vosselman, 2018).

- *Geocloud services* are information infrastructures that enable remote storage, analysis, and presentation of geo-information (M. Zhang et al., 2015). This technology differs from conventional storage since the acquired data can easily be accessed and adapted through one overarching storage. Geocloud services are designed to improve the flexibility, cost-efficiency and speed of data exchange and use between different sectors and for different contexts. In this project, the geocloud platform is intended to host the technical results of the UAV imagery, sketchmaps and the automated feature extraction algorithm. Given the actual contextual situation of the East-African countries, where the internet access rate and related infrastructural developments are lacking behind compared to the rest of the world, the Geocloud services of land tenure will use cloud techniques in combination with other contextual feasible approaches to make the implementation successful.

Fit-for-purpose is an approach that can provide key support to the technologies mentioned above by meeting the concrete needs at the contextual level. Actually, one of the most common needs when implementing technologies is also the development of capacities. Capacity development can increase the possibilities of both adoption of the technology and a successful implementation. In the following section capacity development will be discussed.

4.2 Capacity development

Governance provides direction and coordination of stakeholders and their actions (Mark Bevir & Rhodes, 2001; Elzen, Geels, & Green, 2004; J Kooiman, 1993), its analyses can help us understand how its4land tools can provide solutions to reach a sustainable implementation to deliver land tenure security. A lack of appropriate governance can have a major negative impact on land information production, use and management. This suggests that in addition to technological innovation, there is also a need to understand who should 'own' and direct the use of these new technologies, and how its use might be coordinated given the array of stakeholders involved in land administration in Ethiopia, Kenya and Rwanda. This requires capacity development. Capacity development is key to support the sustainability of the policy when implementing land tenure recording tools.

Capacity development is increasingly seen as an essential factor of sustainable improvements (Bolger, 2000). This term is used in a variety of meanings targeting from a very broad to a very specific scope. The broad approach is more commonly

used and focuses on a holistic context, whereas the specific approach focuses on more unambiguous targets such as human resource development or policy related reinforcements (Enemark & Ahene, 2003). However, as in the case of the governance concept, there are many definitions for capacity development. For example, Morgan defines capacity development as "the abilities, skills, understandings, attitudes, values, relationships, behaviours, motivations, resources and conditions that enable individuals, organizations, networks/sectors and broader social systems to carry out functions and achieve their development objectives over time" (Morgan, 1998, p. 2).

UNDP defines capacity development as "the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time" (UNDP-Capacity Development Group, 2009, p. 5). OECD defines capacity development accordingly as "the process whereby people, organizations and society as a whole unleash, strengthen, create, adapt and maintain capacity over time" (OECD, 2006, p. 12). Focusing on developing countries, this definition was expanded by Bolger who addressed capacity development as "the approaches, strategies and methodologies used by developing countries, and/or external stake-holders, to improve performance at the individual, organizational, network/sector or broader system level" (Bolger, 2000, p. 2).

Previous definitions have been criticised as being too general, which makes it difficult to evaluate outcomes and draw overall conclusions (Otoo, Agapitova, & Behrens, 2009). For this reason, the World Bank tried to define a more explicit definition, stating that capacity development is "a locally driven process of learning by leaders, coalitions and other agents of change that brings about changes in socio-political, policy-related, and organizational factors to enhance local ownership for the effectiveness and efficiency of efforts to achieve a development goal" (Otoo et al., 2009, p. 3). Although the World Bank's definition is more explicit, more specific definitions of the concept have been developed in the context of land administration aligning the objectives (like skills, resources, relationships and sustainability, etc.) of the broader ones.

From the land administration perspective, capacity development is more defined from a human capacity approach: "the development of knowledge, skills and attitudes in individuals and groups of people relevant in design, development, management and maintenance of institutional and operational infrastructures and processes that are locally meaningful" (Groot & Van der Molen, 2000, p. 3). Transversally, attention to human capacity (knowledge, skills and attitudes) development is crucial for success.

Due to the complexity of the concept and by consulting partners of the its4land project, we have reached our own understanding of the capacity development concept. We define it as: "The development of knowledge, skills and attitudes in individuals and networks of people that are relevant for the sustained use of the

land tenure tools". Our definition allows us to describe how capacity development for the land tenure tools needs to be formulated.

In addition to human capacity, there should also be a focus on policy capacity for the sustainable use of the tools. Policy capacity addresses capacity building beyond the training of skills and competencies and is closely aligned with the governance of the innovations. Policy capacity is defined by Painter and Pierre as "the ability to marshal the necessary resources to make intelligent collective choices about and set strategic directions for the allocation of scarce resources to public ends" (Painter & Pierre, 2005, p. 2). In other words, policy capacity can be seen as the capacity to govern. In this way, policy capacity aims to enhance the capacity of governments, business and non-governmental sectors. Policy capacity is a function of three competencies or skills (Wu et al., 2014): analytical skills, managerial skills and political skills that enable policy makers and managers to mobilise the resources and the support required for developing policies and implementing them. This elements are part of model presented in Section 5.1.1.

Capacity development to manage new changes in the land policies find three challenges in the structure of the existing institutions that are responsible to implement the policies. First, land administration agencies have a colonial heritage which is characterized by an operational conservatism. Second, the institutions are not only slow or inefficient but lack technological know-how. Third, bureaucratic structures may be highly implicated in patronage and corruption. Other aspects that affect implementation in a negative manner are, the lack of consensus and analysis for implementation, prescriptions based on desk research, lack of adequate information, and lack of resources; "donor assistance in correcting this deficiency has not always been reliable and sustainable" (African Union, African Development Bank, & Economic Commission for Africa, 2010, p. 32). These elements are considered by the Framework and Guidelines on Land Policy in Africa, section 5.2.2 of this deliverable.

Land recording programs in developing countries are usually government-driven donor-backed projects. The impact of these investments is often restricted to project-driven contributions and gives too little consideration to the sustainability of the project and post-project maintenance contributions (Magis & Zevenbergen, 2014). Therefore, required governance strategies cannot be implemented effectively without focusing on capacity development for sustainable improvements (Bolger, 2000). As Enemark states capacity development is not only about resources and skills:

> The biggest challenge is often to ensure effective and efficient management of the systems once they are established. […] Capacity development is not only about human resources and skills – it is just as much about building sustainable and trustable institutions for running the systems. Capacity development must be seen in a wider context of providing the ability of organisations and individuals to perform functions effectively, efficiently and sustainably. This also includes the requirement to address capacity needs at institutional and even more broadly at societal levels. Capacity development does not imply that there is no capacity in existence; it also includes

> retaining and strengthening existing capacities of people and institutions to perform their tasks and deliver services. (Enemark et al., 2014, p. 32).

Capacity development can consist of two types: hard and soft characteristics. Hard characteristics are concern with the development of knowledge and skills, whereas soft characteristics of capacity development consist of values, vision, leadership, management style, and organizational culture (Brinkerhoff & Morgan, 2010). For this project, hard characteristics are captured in the knowledge and the skills, the soft characteristics are captured in the attitudes.

We consider that the government needs to be responsible for softer capacity development for the use of the land tenure tools. The government also needs to sensitize and reflect in its policies about the importance and principles of land administration. In this way, the government is directly responsible for the soft characteristics of capacity development (attitudes). Furthermore, the government is also responsible to provide enough resources, up to date technology and infrastructure to use and maintain the tools. For the hard characteristics of capacity development (knowledge and skills), they can work together in close collaboration with local institutions like universities, private companies or NGO's. These institutions can assist in large scale training, education and workshops.

It seems like actors involved in capacity development to support the use of the land tenure tools could be the same actors that are involved in governance of the land tenure tools. Therefore, this project will require to identify the available capacity in order to develop capacities for a sustainable use of the land tenure recording tools from a governance perspective. To do so, and based on the relevance of policy sustainability and capacity building, six governance models presented in the following section have been selected as base of our model, which will be presented in deliverable 7.3.

5 Governance models

Based on the literature selection and the needs presented in Deliverable 2.5 we selected three models from a "Public governance" perspective and three from a "Good governance" perspective. The frameworks that are part of the "Public governance" approach are: 1) Framework for Understanding Policy Competences and Capabilities 2) Conceptual Framework for the Shifts in Modes of Environmental Governance and 3) The Governance Assessment Tool. The three frameworks will be explained in sections 5.1.1, 5.1.2 and 5.1.3. These three frameworks have been applied in contexts that include developed and developing countries, and they have proved to bring relevant insights regarding the understanding of the governance context while considering the sustainability of the policy and capacity development. Therefore, we believe they can provide relevant insights for the countries involved in this project. The "Public governance" models have an academic perspective while, the "Good governance" models are promoted by international organisations.

The frameworks that are part of the "Good governance" approach are: 1) Multi-level Governance Assessment-OECD, 2) Framework and Guidelines in Land Policy Africa and 3) Land Governance Assessment Framework. These frameworks will be developed in subsections 5.2.1, 5.2.2 and 5.2.3 respectively. The three governance models have been applied for land issues and frameworks 5.2.2 and 5.2.3 have been directly used in the African context. This includes the countries of Rwanda, Ethiopia and Kenya. These governance models as well as the ones that correspond to the "Public governance" approach, consider the sustainability of the policy as well as capacity development.

5.1 Public Governance

5.1.1 Framework for understanding policy competences and capabilities

The aim of this framework is to analyse "policy capacity" (X. Wu, Ramesh, & Howlett, 2015) and to provide an operational definition of this concept that can be used in practice (Xun Wu, Ramesh, & Howlett, 2018). Policy capacity is defined "as the set of skills and resources or competences and capabilities necessary to perform policy functions […] key skills or competences which comprise policy capacity can be categorized into three types: analytical, operational and political" (X. Wu et al., 2015, p. 166). Each competence involves at each level (individual, organizational, and systemic) resources and capabilities. From this model, we will focus mainly on the organizational and systemic levels, as they share governance elements. The three levels create a typology of policy-relevant capacity. "By recognizing policy capacity as comprising nine different capacity types, analysts are able to go beyond general observations on government capacity to address public problems and exercise more precision in their assessment of policy capacity to make good policy choices and implement them effectively" (Xun Wu, Ramesh, et al., 2018, p. 14). Table 2. presents the aforementioned relationship. This governance model has shown its capacity to explain cases in Belgium, South Korea, Taiwan, Singapore, Malaysia, United

Kingdom, United States, Australia, China, Czech Republic and Russia (Xun Wu, Howlett, & Ramesh, 2018). However, it has not been applied in the African countries.

Table 2. Policy capacity, skills and resources (X. Wu et al., 2015, p. 167)

Levels of resources and capabilities	**Skills and competences**		
	Analytical	**Operational**	**Political**
Individual	Individual analytical capacity	Individual operational capacity	Individual political capacity
Organizational	Organizational analytical capacity	Organizational operational capacity	Organizational political capacity
Systemic	Systematic analytical capacity	Systematic operational capacity	Systematic political capacity

There are four elements that differentiate this model from other models focused on capacity. First, this model covers the complete policy process, including agenda setting. It also acknowledges the fact that might be skills and resources that can be shared between task environments. Second, it looks beyond the government and acknowledges the capacity of different types of organisations, such as political parties, NGOs, multiple governmental actors, etc. Even when the government plays a key role, this model recognizes the capacity of other stakeholders in the policy-making (X. Wu et al., 2015; Xun Wu, Ramesh, et al., 2018).

Third, the taxonomy of the model acknowledges the existence of a system where resources affect and interact across levels. In the system level, degree of support and trust in a public agency as well as economic and security systems in which policy maker operates play a key role for policy capacity. At the individual level, the policy professionals, such as public managers or policy analysts have a determinant role regarding how well the tasks are carried out. The policy capacity of these actors is determined by their knowledge, skills for policy analysis and evaluation, managerial expertise and political judgment. There are factors at the organizational level that influence individual capabilities, they are the availability and effectiveness of information infrastructure human and financial resource management systems, and political support (X. Wu et al., 2015, p. 167). In the particular case of public managers and analysts, critical factors to support their policy work are trust, availability of personnel and financial resources (Xun Wu, Ramesh, et al., 2018, pp. 4–5).

Fourth, this model defines policy capacity as the result from combinations of skills and resources at each level. "Analytical-level capacities help to ensure policy actions are technically sound in the sense they can contribute to attainment of policy goals if carried out. Operational-level capacity allows the alignment of resources with policy actions so that they can be implemented in practice. And political-level capacity helps to obtain and sustain political support for policy actions" (X. Wu et al., 2015, pp. 167–168). "The categorization thus offers considerable advantages in practice, […] the three types of competences are governed by different processes and considerations which are lost when any are ignored or incorrectly juxtaposed" (Xun Wu, Ramesh, et al., 2018, p. 5). A multi-dimensional perspective on the policy and the governance capacity permits a better understanding about why there are policy failures persistent and widespread (X. Wu et al., 2015, p. 168). "Policy successes demand high level of capacities in multiple dimensions – analytical,

operational and political – but such conditions are difficult to meet in practice" (Xun Wu, Ramesh, et al., 2018, p. 6). Figure 1, shows a the model of policy capacity.

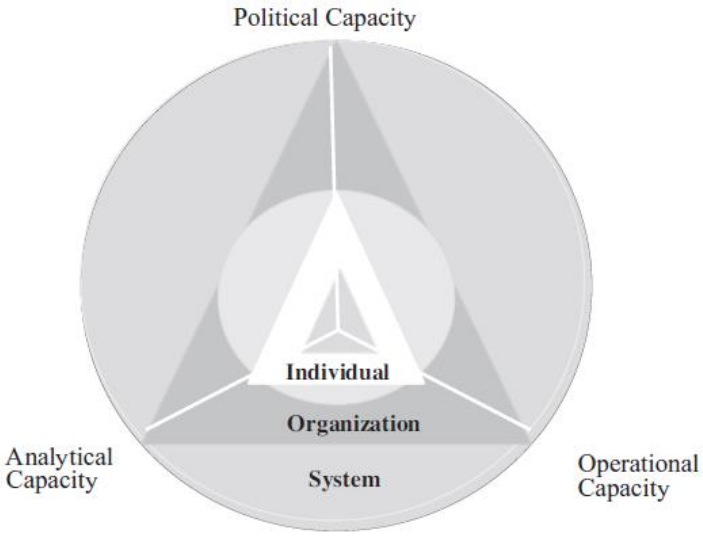


Figure 1. Model of policy capacity (X. Wu et al., 2015, p. 168)

Policy capacity at the individual level acknowledges that what an organisation can do is highly dependent on the analytical capacity of the employees to diagnose problems and to develop proper strategies. It is important that senior managers be intelligent consumers of analytical products. Otherwise, the value of the analytical work could be dismissed or misguided. The model here divides the complex concept of leadership into key functions of policy managers: planning, staffing, budgeting, delegating, directing and coordinating (Xun Wu, Ramesh, et al., 2018, p. 7). Communication skills, "negotiation and consensus building can be critical for individual actors working closely with stakeholders outside their organizations" (Xun Wu, Ramesh, et al., 2018, p. 8). Political capacity is required to both senior policy-makers and officials. "Without adequate political capacity, policy analysts and experts may make policy recommendations that overlook resistance of key players in the policy process, and public sector managers may underestimate the level of opposition to policies or programs that are implemented" (Xun Wu, Ramesh, et al., 2018, p. 8) . Figure 2, present an analytical model at the individual level.

Figure 2. Policy capacity at the individual level (Xun Wu, Ramesh, et al., 2018, p. 7)

Policy capacity at the organisational level considers that the analytical capacity is related with the skill to acquire and process both information and data that is required to perform policy functions. It requires the ability not only of individuals but the availability of that data in time and in a systematic form throughout the organisation (Xun Wu, Ramesh, et al., 2018, pp. 8–9). In this sense effective information systems play a key role to craft and to implement the policy effectively. Good examples are national statistical agencies or periodic census. E-government platforms play an important role to make information accessible to other policy-makers. "A robust e-government architecture is increasingly recognized as vital for operational capability as it allows officials to connect and collaborate more easily and frequently and connects governments to people" (Xun Wu, Ramesh, et al., 2018, p. 10).

Policy capacity at the organisational level considers that the analytical capacity is related with the skill to acquire and process both information and data that is required to perform policy functions. It requires the ability not only of individuals but the availability of that data in time and in a systematic form throughout the organisation (Xun Wu, Ramesh, et al., 2018, pp. 8–9). In this sense effective information systems play a key role to craft and to implement the policy effectively. Good examples are national statistical agencies or periodic census. E-government platforms play an important role to make information accessible to other policy-makers. "A robust e-government architecture is increasingly recognized as vital for operational capability as it allows officials to connect and collaborate more easily and frequently and connects governments to people" (Xun Wu, Ramesh, et al., 2018, p. 10).

Legitimacy is a key factor for an organization regarding political capacity. The degree of access to key policy makers and a good working relationship among ministers is also important at this level. Communication with the stakeholders and

the general public is also a key component and it is essential for effective policy and governance. "Skillful communication by agencies can increase support for government policy objectives" (Xun Wu, Ramesh, et al., 2018, p. 11). Two-way communication between citizens and the state can support that the state be more responsive to the needs and expectations (Xun Wu, Ramesh, et al., 2018, p. 11). Figure 3 shows the analytical model at the organizational level.

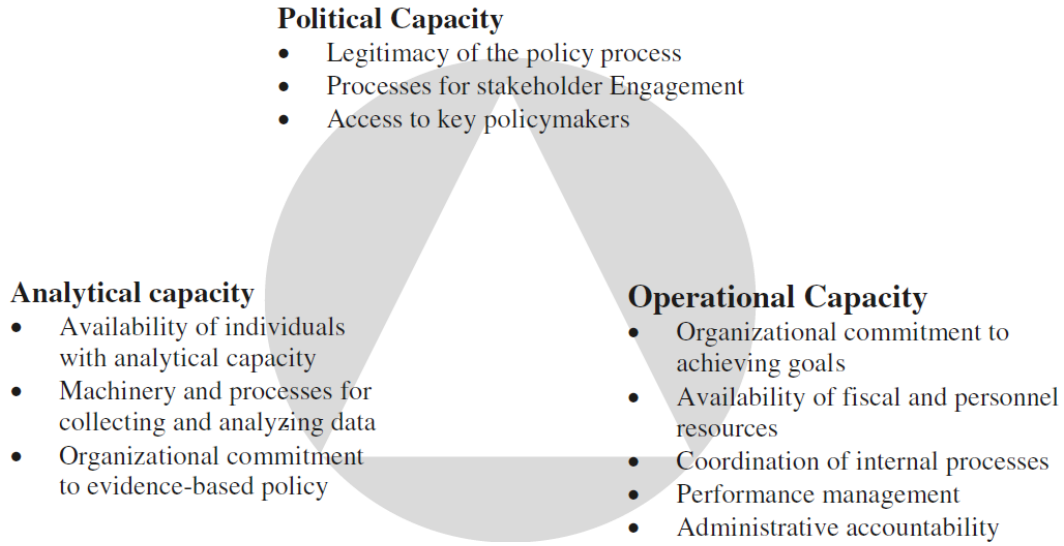


Figure 3. Policy capacity at the organisational level (Xun Wu, Ramesh, et al., 2018, p. 9)

Policy capacity at the system level considers that "analytical capacity can be measured by the extent and quality of system-wide data collection; the availability, speed and ease of access generally across different stakeholders involved in the policy process; and the level of competition and diversity in the production of policy knowledge" (Xun Wu, Ramesh, et al., 2018, p. 11). National agencies for data collection are an example. However, those agencies present a wide variation regarding the quality and extent of the information. Analytical capacity is also determined by the accessibility of non-governmental organisations and private actors have to that information. The relevance of information systems has been more notorious recently due to the emphasis on accountability, transparency and participatory governance (Xun Wu, Ramesh, et al., 2018, p. 12). Right to information is seen nowadays as a precondition for public participation in the policy process.

"At the system level, operational capacity refers to the system of controls over public sector agencies and the relationships they maintain with their societal partners" (Xun Wu, Ramesh, et al., 2018, p. 12). Capacity level is determined by the level of inter-governmental and inter-agency coordination. Also by the policy network coherence and engagement, clarity in both the roles and responsibilities of the organisations that take part in the policy process. "Finally, at the system level, political capacity is determined by the capabilities and competences enabling

participation of key stakeholders in the policy process to sustain public support for policy reform and resolve conflicts arising from policy actions" (Xun Wu, Ramesh, et al., 2018, p. 13). Figure 4 presents the analytical model at the system level.

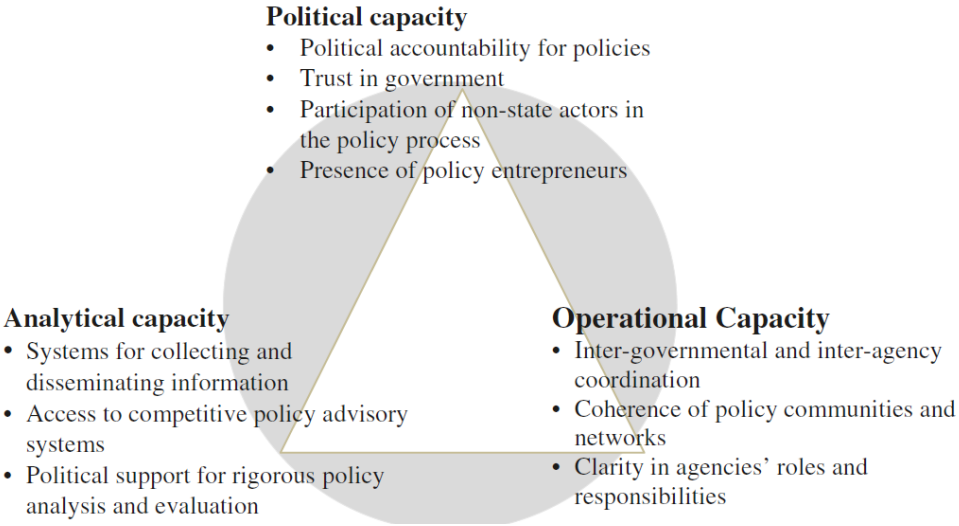


Figure 4. Policy capacity at the systemic level (Xun Wu, Ramesh, et al., 2018, p. 12)

In summary, although this governance model has not been applied in African countries. The elements that conform it are context sensitive. Therefore, the adaptation for the African cases is possible. It has the strengths of considering the sustainability of the policy, capacity development, technology and information sharing elements, including land information systems.

5.1.2 Conceptual Framework for the Shifts in Modes of Environmental Governance

Attending to the changes in the last decades regarding a shift from a governmental approach to a governance approach. The Conceptual framework for the Shifts in Modes of Environmental Governance, aims to differentiate between modes of governance with a specific focused on urban environmental policy and policy regarding production and consumption (Driessen, Dieperink, Laerhoven, Runhaar, & Vermeulen, 2012a). This framework has already been applied at the European level (Hartmann & Driessen, 2017) and in different European countries such as Belgium, England, France, the Netherlands, Poland, Sweden and Finland (Driessen et al., 2012a; Hegger, Driessen, & Bakker, 2018; Hegger, Mees, Driessen, & Runhaar, 2017; Mees, Driessen, & Runhaar, 2014). As well as in non-European countries such as Brazil (de Aguiar & Freire, 2017) and China (L. Zhang, Chen, & Tochen, 2016). However, one of the main critics to this "from government to governance" concept is that it tends to oversimplify the richness of governance models and to neglect the complexity and multifaceted nature of the real world in terms of governing (Lange, Driessen, Sauer, Bornemann, & Burger, 2013).

"Within this approach, five ideal-typical modes of governance are mapped on a continuum referring to the extent of state and non-state actor involvement" (Lange et al., 2013, p. 413). The developers of this framework consider that their "framework leads to detailed, replicable claims about character and intensity of shifts" (Driessen et al., 2012a, p. 143).

The framework is based on the role relations between the state, the market and civil society. First, the authors make a distinction between centralised and decentralised modes of governance. "In both cases either central or regional/local governments take the lead and market and civil society are recipients of the government's incentives" (Driessen et al., 2012a, p. 145). The second aspect are the governance arrangements. This can be called public-private –governance "when the cooperation is mainly between government and market actors or interactive governance when the actor base is broader and governments, market actors and civil society are collaborating on equal terms" (Driessen et al., 2012a, p. 145). Third, governance arrangements are observed, "in which primarily actors pertaining to the private domain participate. This mode of governance aims to achieve environmental goals through private efforts and investments" (Driessen et al., 2012a, p. 148).

The model presents five types of governance modes. It is important to notice that these modes might not exist in their purest form, they correspond to simplifications of complex social arrangements. Also, the framework includes three general dimensions a) actors, b) institutions and c) content. Figure 5 below presents them. By comparing and analyzing the dimensions over time, it is possible to characterize the shifts in governance. "Changes can be labelled as 'paradigm shifts' when nearly all the features have transformed" (Driessen et al., 2012a, p. 148). This model suggests an analysis of a 20-year period of time.

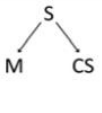
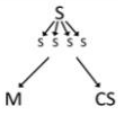
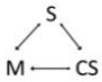
		Centralized governance	Decentralized governance	Public–private governance	Interactive governance	Self-governance
						
Actor features	**Initiating actors**	Central gov't agencies (or supranational bodies)	Gov't at its various levels of aggregation (subsidiarity)	Central gov't agencies; private sector is granted a preconditioned role also	Multiple actors: gov't, private sector and civil society	Private sector and/or civil society
	Stakeholder position	Stakeholder autonomy determined by principal agency	High likelihood of stakeholder involvement	Autonomy of market stakeholders within predetermined boundaries	Equal roles for all network partners	Self governing entities determine the involvement of other stakeholders
	Policy level	(Supra)national state	Lower levels of gov't	Local to international level	Multiple levels	Local to international level
	Power base	Coercion; authority; legitimacy (democratic representation at the national level)	Coercion; authority; legitimacy (democratic representation at lower levels)	Competitiveness (prices); contracts and legal recourse; legitimacy (agreement on relations and procedures)	Legitimacy (agreement on roles, positions, procedures and process); trust; knowledge	Autonomy; leadership; group size; social capital; legitimacy (agreement on relations and procedures)
Institutional features	**Model of representation**	Pluralist (popular (supra)national election and lobbying)	Pluralist (popular local election and lobbying)	Corporatist (formalized public–private governing arrangements)	Partnership (participatory public–private governing arrangements	Partnership (participatory private–private governing arrangements)
	Rules of interaction	Formal rules (rule of law; fixed and clear procedures)	Formal rules (rule of law; fixed and clear procedures)	Formal and informal exchange rules	Institutions in its broadest form (formal and informal rules)	Informal rules (norms; culture); self-crafted (non-imposed) formal rules
	Mechanisms of social interaction	Top down; command and control	Sub-national governments decide autonomously about collaborations within top-down determined boundaries	Private actors decide autonomously about collaborations determined boundaries	Interactive: social learning, deliberations and negotiations	Bottom up: social learning, deliberations and negotiations
Features concerning content	**Goals and targets**	Uniform goals and targets	Uniform and level specific goals and targets	Uniform goals; targets actor specific	Tailor-made and integrated goals xand targets	Tailor-made goals and targets
	Instruments	Legislation, permits, norms and standards	Public covenants and performance contracts	Incentive based instruments such as taxes and grants; performance contracts	Negotiated agreements; trading mechanisms; covenants; entitlements	Voluntary instruments; private contracts; entitlements; labelling and reporting
	Policy integration	Sectorial (policy sectors and levels separated)	Sectorial (policy sectors separated)	Sectorial (branches and industries separated)	Integrated (policy sectors and policy levels integrated)	Sectorial to integrated (depends on problem framing by communities of interest)
	Policy–science interface	Primacy of generic, expert knowledge	Primacy of generic expert knowledge; room for issue and time-and-place specific knowledge	Dominance of issue and time-and-place specific knowledge; expert and lay (producers and consumers)	Transdisciplinarity: expert and lay knowledge in networks; emphasis on integrated and time-and-place specific knowledge	Dominance of issue and time-and-place specific knowledge: expert and lay (citizens)

Figure 5. Conceptual framework for the shifts in modes of environmental governance (Driessen, Dieperink, Laerhoven, Runhaar, & Vermeulen, 2012b, pp. 146–147)

Just like the previously discussed model, this model, has not been applied in African countries. However, previous applications' experiences have shown the relevance of the insights for both developing and developed countries. This model can be employed to understand the hierarchy-market-network relationship as well to

provide an understanding in the evolution of the governance models through time. This is of high relevance since in some of the cases previous mapping attempts have been carried out.

5.1.3 Governance Assessment Tool

The Governance Assessment Tool (GAT) is based on the Contextual Interaction Theory (CIT) (Boer de & Bressers, 2011; Bressers, 2009; Bressers et al., 2016; Bressers & Kuks, 2013). The CIT is a third-generation implementation theory. Third generation theories attempted to combine or to get the best of the "top-down" and "bottom-up" approaches.

The GAT has already been applied in the analysis of projects implementation in the Netherlands (Boer de & Bressers, 2011), Canada (Boer de, 2012), north-west Europe (Germany, United Kingdom, France, Belgium and The Netherlands) (HansBressers, Bressers, Kuks, & Larrue, 2016), Romania (Vinke-de Kruijf, Kuks, & Augustijn, 2015), Mexico (Casiano & Boer de, 2015; Casiano Flores et al., 2016) and Palestine (Al-Khatib, Shoqier, Özerol, & Majaj, 2017; Judeh, Haddad, & Özerol, 2017). However, one of the most important limitations of this framework, is the lack of specific attention to issues such as corruption or shadow networks.

The governance concept as used by the GAT has its roots in public policy and administration literature and it is an attempt to organize the multiplicity of aspects mentioned in those literatures into a concise framework (Bressers & Kuks, 2013). The concept of governance is an enlargement of public policy (Bressers, 2009) and it is considered to be a neutral concept (Bressers & Kuks, 2013). Governance is seen as "beyond merely government" and as 'a context for decision-making and implementation; and it can be both supportive and restrictive for those processes'. The governance context here, assumes the existence of a multiplicity of actors, levels, goals, instruments and different means that can be applied (Bressers et al., 2016). The questions around each dimension allows us to have a systematic description of those five dimensions in the governance context.

This systematisation is a way of sorting through the complexity that allows a reasonable framework for practitioners to consider the context and dynamics of their particular settings (O'Toole, 2004). The five dimensions can systematically describe a specific area concerning a specific issue (Bressers et al., 2013). The governance definition used as part of the GAT framework is as follows: "the combination of the relevant multiplicity of responsibilities and resources, instrumental strategies, goals, actor-networks and scales that forms a context that, to some degree, restricts and, to some degree, enables actions and interactions" (Bressers et al., 2013, p. 6).

The GAT comprises two elements, namely dimensions and criteria. The descriptive-analytical elements are elaborated in five dimensions (multi-level, multi-actor,

multi-faceted, multi-instrument and multi-resource based) and the assessment is made for each dimension applying four semi-normative[1] criteria (coherence, extent, flexibility, and intensity). The four criteria of the GAT are defined by the questions they pose:

- Extent: are all elements in the five dimensions, which are relevant for the sector or project being addressed, taken into account?
- Coherence: are the elements in the dimensions of governance reinforcing, rather than contradicting, each other?
- Flexibility: are multiple roads to the goals, depending on opportunities and threats as they arise, permitted and supported?
- Intensity: how strongly do the elements in the dimensions of governance urge changes in the status quo or in current developments? (Bressers et al., 2016)

Answering the questions on each dimension provides a systematic description of the governance context. The five dimensions can systematically describe a specific area concerning a specific issue, such as wastewater treatment (Bressers et al., 2013). The five dimensions and the four qualities provide a comprehensive understanding of how the different elements of governance interact and influence the implementation setting. The assessment also provides explanations about the degree to which the governance regime can be supportive for the policy implementation actors (Bressers & Kuks, 2013). In other words, the assessment allows deeper understanding of the governance context and how it impacts policy implementation. The GAT is made up of a 'matrix' consisting of these five dimensions and four qualities (Bressers et al., 2015). Table 3 shows this matrix.

Table 3. Water governance assessment matrix

	Qualities of the governance regime			
Governance Dimension	Extent	Coherence	Flexibility	Intensity
Levels & Scales	How many levels are involved and dealing with an issue? Are there any important gaps or missing levels?	Do these levels work together and do they trust each other between levels? To what degree is the mutual dependence recognised?	Is it possible to move up and down levels (upscaling and downscaling) given the issue at stake?	Is there a strong impact from a certain level towards behavioural change or management reform?
Actors & Networks	Are all relevant stakeholders involved? Who are excluded?	What is the strength of interactions between stakeholders? In what way are these interactions institutionalised in stable structures? Do the stakeholders have experience in working	Is it possible that new actors are included or even that lead shifts from one actor to another when there are pragmatic reasons for this? Do the actors share in social capital	Is there a strong impact from an actor or actor coalition towards behavioural change or management reform?

[1] They are called *semi*-normative, since their ethical value rests on the appreciation of the goals themselves.

		together? Do they trust and respect each other?	allowing them to support each other's task?	
Problem Perspectives & Goal Ambitions	To what extent are the various problem perspectives taken into account?	To what extent do the various goals support each other, or are they in competition or conflict?	Are there opportunities to re-assess goals?	How different are the goal ambitions from the status quo?
Strategies & Instruments	What types of instruments are included in the policy strategy and are implemented and which are excluded?	To what extent is the resulting incentive system based on synergy? Are there any overlaps or conflicts of incentives created by the included policy instruments?	Are there opportunities to combine or make use of different types of instrument? Is there a choice?	What is the implied behavioural deviation from current practice and how strongly do the instruments require and enforce this?
Responsibilities & Resources	Are responsibilities clearly assigned and sufficiently facilitated with resources?	To what extent do the assigned responsibilities create competence struggles or cooperation within or across institutions?	To what extent is it possible to pool the assigned responsibilities and resources as long as accountability and transparency are not compromised?	Is the amount of allocated resources sufficient to implement the measures needed for the intended change?

The GAT, as the previous discussed governance models, has the quality that is context sensitive. It has been applied in both developed and developing contexts. Therefore, its adaptation to the African context seems plausible. The semi-normative characteristic when assessing the qualities of the governance context, has allowed relevant insights in the governance literature from a contextual perspective (Casiano Flores, Özerol, & Bressers, 2017). This governance model will allow to understand from a contextualized perspective the governance factors that can hinder or limit the implementation of land recording technologies.

5.2 Good governance

5.2.1 Multi-level Governance Assessment-OECD

Decentralization policies have been implemented in the last decades worldwide, this has increased both the complexity at the different governmental levels and the competences of lower governmental levels (Charbit & Michalun, 2009, p. 8). These reforms have become relevant multi-level governance analysis in order to understand better those new challenges. "Multi-level governance is used here to characterise the mutually dependent relationships – be they vertical, horizontal, or networked – between public actors situated at different levels of government" (Charbit & Michalun, 2009, p. 8).

"The OECD works with officials at all levels of government to strengthen their multi-level governance practices in order to better realise regional development objectives and support policy initiatives, including decentralisation and broader

territorial reform" (OECD, 2017, p. 9). This framework has been applied in different areas of public policy, including water, regional development, territorial, metropolitan and rural reviews, among others (OECD, 2011, p. 31). However, one of the main limitations of this "Good governance" frameworks is that they push a particular agenda without fully considering contextual factors (Casiano Flores, 2017).

The OECD Multi-level Governance Framework considers seven "gaps". These gaps are produced by the dependency of one governmental level on another. This dependency can be vertical or horizontal and can be related with information, skills, resources, or competences. Each country may experience the gaps in different degrees. However, they tend to experience them simultaneously due to decentralisation processes, network-like dynamics or multi-level governance relations (Charbit & Michalun, 2009, p. 8).

The gaps considered by this framework are: administrative gap, information gap, policy gap, capacity gap, funding gap, objective gap and accountability gap. The administrative gap refers to a geographical mismatch between the governmental/administrative boundary and the area in which the problem is focused. An example is water governance where it is common to find a mismatch between the hydrological and the administrative boundaries. The *administrative gap* may raise the question of the "appropriate" scale for investments, which can be achieved through better co-ordination of water policy" (OECD, 2011, p. 32).

The information gap "occurs when there is an asymmetry of information across ministries, between levels of government and across local actors involved in water policy" (OECD, 2011, p. 33). "An asymmetry of information may occur when national and sub-national authorities do not actively share their knowledge of what is happening on the ground and can create win-lose situations by specific use of information not in the possession of the other party" (OECD, 2011, p. 33).

The policy gap refers to sectorial fragmentation tasks between different ministries and/or public agencies. Hence, it "refers to a lack of policy coherence at central government level, which is a condition for better cross-sector co-ordination at the sub-national level". (OECD, 2011, p. 33).

The capacity gap is present when there is insufficient scientific and technical expertise as well as a diminished infrastructure for designing and implementing the policy. For example, when "the local authority may not have the funding to operate and maintain services effectively. This may leads to the deterioration and potential failure of services and infrastructure, which in turn threaten the quality of water resources" (OECD, 2011, p. 33). "This capacity gap is not restricted to the sub-national level. It also applies to the national level in terms of managing multi-level relations, allocating responsibilities and funds, and ensuring co-ordinated, coherent policy approaches among actors at the central level. (OECD, 2011, pp. 33–34)

The funding gap refers to the insufficiency or instability in the revenues to implement the policy among the different ministries and at the different governmental levels. "This gap reflects a mutual dependence between levels of government […] This interdependence is more crucial when government funding has been slashed in times of economic and financial crisis" (OECD, 2011, p. 34).

Objective gap is present when there are diverging or contradictory objectives between the different levels of the government or ministries and this affects the long-term objectives of the integral policy. In this sense, "the *objective gap* underlines governments' challenges in fostering strategic and territorialized. […] All relevant stakeholders must be engaged for the long haul, beyond political changes and electoral calendars. The timeframe for decisions is of crucial importance in strategic planning" (OECD, 2011, p. 34).

The accountability gap is related with the lack of transparency of the policy and with institutional issues regarding quality and integrity. "The decision-making process introduces risks of transparency, integrity, capture and corruption, in particular when local governments do not have the capacity to monitor investment and civil society is not totally engaged" (OECD, 2011, p. 34). Table 4 presents a summary of the gaps and their requirements:

Table 4. Mutual dependence across levels of government: multi-level governance challenges/gaps in OECD countries (Allain-Dupré, 2011, p. 21)

Administrative gap:	"Mismatch" between functional areas and administrative boundaries => Need instruments for achieving "effective scale" (co-ordination tools, mergers)
Information gap:	Asymmetries of information (quantity, quality, type) between different stakeholders, either voluntary or not => Need instruments for revealing and sharing information
Policy gap:	Sectoral fragmentation across ministries and agencies => Need mechanisms to create multidimensional/systemic approaches and to exercise political leadership
Capacity gap:	Insufficient scientific, technical, infrastructural capacity of local actors => Need instruments to build local capacity
Funding gap:	Unstable or insufficient revenues undermining effective implementation of responsibilities at sub-national level => Need shared financing mechanisms
Objective gap:	Different rationalities creating obstacles for adopting convergent targets => Need for instruments to align objectives
Accountability gap:	Difficulty in ensuring transparency of practices across different constituencies. => Need institutional-quality, integrity and citizen-involvement instruments

As commented before, this governance model has been applied for different topics, being one of them territorial/land issues. However, the model has been mostly applied in environmental topics. This factor provides a strength to this models in aspects such as the sustainability of the policy and capacity development.

Nowadays, it is one of the most influential models worldwide since it is promoted by the OECD. Its elements of analysis about policy implementation in both developed and developing countries are well accepted by national governments.

5.2.2 **Framework and Guidelines in Land Policy Africa**

In 2006, the African Union, the African Development Bank and the Economic Commission for Africa started a process to develop both a framework and guidelines for land policy and land reform in the African continent with the objective of land rights, enhancing productivity and securing livelihoods for the majority of the population (African Union et al., 2010). This document was endorsed by the Joint Conference of Ministers of Agriculture, Land and Livestock in April 2009 and some states started taking actions by limiting the amount of land for large investments or formulating guidelines and strategies for the regulation of investments (Sulle & Hall, 2014). It has also contributed to the African Union efforts to fight poverty based on the promotion of rights and equitable access to land (Committee on World Food Security, 2016).

While the impact of the Framework and Guidelines is acknowledged at the African continent level. Some limitations have been pointed out. For example, the lack of focus on the commons, which face serious threats due to the misuse or abuse. Also, the framework requires to be strengthened in order to address intra and inter-generational issues and a better approach about native communities misplacement (AUC, ECA, & AfDB Consortium, 2011).

The objective of this framework is not to develop a normative framework nor to draft a land policy that must be adopted by the states. The member states have the right to decide their own policies. However, the developed framework acknowledges that a proper management of land is an important factor for peace and security. The framework also acknowledges that land reforms in Africa have been carried out in the absence of articulation, continental guidance or national consensus (African Union et al., 2010).

In this sense the framework aims to:

a) Offer a base for commitment towards the formulation and operationalisation of sound land policies.
b) Promote principles for securing access to land for all users.
c) Encourage popular participation for land policy formulation and implementation.
d) Suggest standards for best land reform practices and benchmarks.
e) Articulate a policy framework capable of addressing emerging issues.
f) Provide a base for a coherent partnership between state, citizens, land policy partners and implementers.
g) Establish principles that allow the mobilisation of resources and capacity building towards a transformative land policy reform

h) Develop guidelines at the regional level that includes two or more countries for a sustainable management and utilization of the land (African Union et al., 2010).

Within this framework, African stakeholders have reached a consensus regarding land policy development. These are:

a) land policy development should be seen as a prerequisite for economic growth and sustainable human development;
b) land is a highly sensitive political issue and as such the process of land policy development, implementation and evaluation, needs to be as inclusive and participatory as possible;
c) national ownership in the development of land policy is critical for engendering broad grass roots endorsement which is more likely to lead to successful implementation;
d) there are a range of indigenous principles and emerging innovative local practices that can inform sound national land policy development and implementation
e) deliberate steps must be taken to ensure the full and informed participation of women - Africa's primary land users – in policy development and implementation; and
f) successful implementation of land policies will contribute to improved governance, environmental management and the consolidation of peace (African Union et al., 2010, p. 23).

The Steps in Land Policy are as follows:

a) Stakeholder consultation and identification of salient problems in the land sector.
b) Preparation of working drafts for further discussion with stakeholders.
c) Appraisal of institutional and financial/budgetary options.
d) Refinement, processing and approval of the national land policy.
e) Design of implementation programmes and rationalization of institutional responsibilities for implementation.
f) Enactment of new and revision or repeal of existing land and land-related legislation.
g) Further dissemination of information to the public, training and capacity building to support implementation (African Union et al., 2010, p. 29).

An effective tracking of land policy development and implementation is complex and there are very few examples in the continent. An effective tracking requires that the government meets the following functions:

a) make timely re-adjustments to policy processes;
b) take appropriate measures to ensure the effectiveness and efficiency of land policies;

c) learn from past successes and failures;
d) disseminate local good practices for use at the national level;
e) improve the quality of knowledge and building capacities for further monitoring and evaluation;
f) secure and consolidate the participation and commitment of all stakeholders and development partners; and
g) enable governments to manage emerging issues and other incidental developments in the land sector in an organic and systematic way (African Union et al., 2010, p. 37).

This governance model has been developed considering the African context. It presents "Good governance" elements in which has been an important social agreement regarding Land Governance. This characteristic of the model is very important since the topic of analysis is related with land recording tools.

5.2.3 **Land Governance Assessment Framework**

The Land Governance Assessment Framework "is a diagnostic instrument to assess the status of land governance at the country or sub-national level using a highly participatory and country-driven process that draws systematically on local expertise and existing evidence. The ranking is based on a comprehensive review of available conceptual and empirical material by local experts in land governance" (World Bank, 2015d). This framework has been applied in 24 African countries, in 4 countries in Central Europe, 5 Latin American countries, 5 Asian countries and 1 Middle East country (World Bank, 2018). Among the African countries are Ethiopia (Gebrewold, 2016), Kenya (Kameri-Mbote, 2016) and Rwanda (Ngoga et al., 2017). However, this framework as the other "Good governance" frameworks, is promoted by an international organization with a particular agenda that tends to dismiss relevant contextual factors and to push policies such as descentralisation, which can be very difficult to achieve properly in many cases.

"The LGAF, developed by the World Bank and its partners – the African Union, FAO IFPRI, UN-Habitat – provides a holistic, diagnostic review at the country level that can inform policy dialogue in a clear and targeted manner" (World Bank, 2015a). The model aims to support policy makers and stakeholders. It helps to "benchmark governance, prioritize reforms in the land sector, and identify areas that require further attention" (World Bank, 2015a). However, it does not have as an objective to rank countries. The scores can be helpful to identify good practices in other countries (World Bank, 2015c).

The framework includes five areas of policy intervention:
1. Recognition and respect for existing rights.
2. Land use planning, management and taxation.
3. Management of public land.
4. Public provision of land information.
5. Dispute resolution and conflict management (World Bank, 2015a).

"The LGAF process is guided by a framework of land governance indicators in the 5 key areas listed above and organized into the 9 panels listed below. Each indicator is divided into 3-4 dimensions for which rankings are assigned by expert panels based on pre-coded answers" (World Bank, 2015a). The essence of the framework is to provide a score for each dimension via panels of experts. The panels are organised by a specific thematic area and they include experts from different areas such as academics, lawyers, land professionals, government employees, etc. The panels are expected to have between 3 and 8 members. The topics of the panels are:

1. Land Tenure Recognition.
2. Rights to Forest and Common Lands & Rural Land Use Regulations.
3. Urban Land Use, Planning, and Development.
4. Public Land Management.
5. Transparent Process and Economic Benefit.
6. Public Provision of Land Information: Registry and Cadastre.
7. Land Valuation and Taxation.
8. Dispute Resolution.
9. Review of Institutional Arrangements and Policies (World Bank, 2015b).

The LGAF process is coordinated and implemented by country experts. From a general perspective, the steps are:

1. Collection of qualitative and quantitative background information.
2. Stakeholder panels to rank dimensions; invitation based on area of expertise.
3. LGAF report with identification of priority policy areas for follow up.
4. Validation of rankings and discussion of actionable policy priorities.
5. Follow up with work plan (World Bank, 2015e).

Figure 6, exemplifies the process:

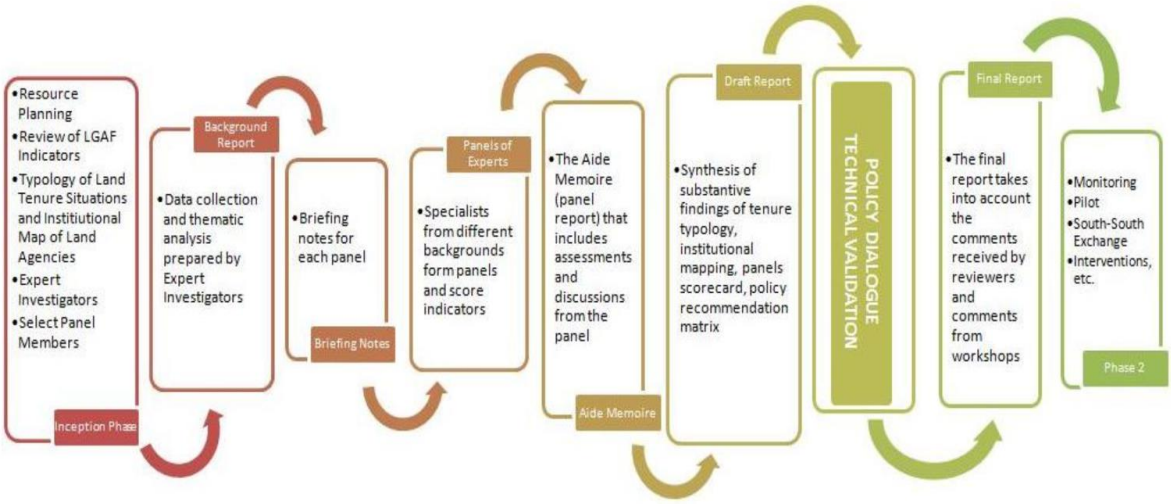


Figure 6. LGAF process (World Bank, 2015e)

"The Land Governance Assessment Framework (LGAF) consists of 27 core land governance indicators, which are then further broken down into a total of 80 dimensions. These dimensions are scored by selecting an appropriate answer among a list of pre-coded statements that draw on global experience. "A" stands for good practice, "D" stands for weak practice. Depending on the country context, a few dimensions may not be eligible for scoring, or sub-dimensions can be added" (World Bank, 2015c). Figure 7 presents an example of the scoring technique.

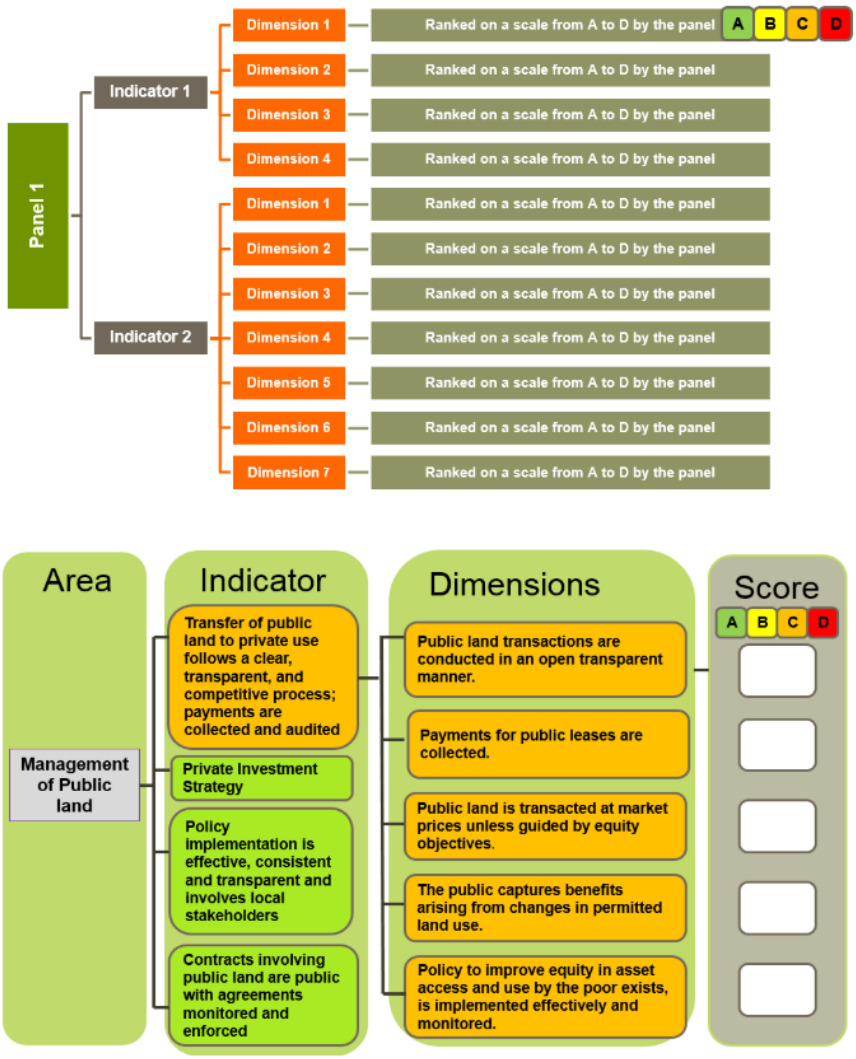


Figure 7. Scoring technique (World Bank, 2015c).

This is one of the most developed governance models regarding the African land topic. It has already been applied in the three countries that are part of this project. This represent an important baseline for our analysis. Although the governance model has not been focused on land recording tools, the governance analysis provided is determinant to understand the context of our cases from a "Good governance" perspective. This model as well as the two previous models, considers elements such as the sustainability of the policy and capacity development.

6 Conclusion

The objective of this deliverable 7.2 has been to review governance and capacity development models in order to create an integral its4land model. This model will be developed and reported in deliverable 7.3. In order to present a selection of those reviewed models, a selection criteria was stablished. This criteria was the result of two steps in the research a) A literature review and b) Matching academic findings with governance needs pointed out in deliverable 2.5.

The selection criteria included two core elements: sustainability of the policy and capacity development. These two elements are key in order to overcome present challenges in African countries, such as lack of capacity and short-term impacts when implementing policies. Besides these core characteristics we established other five important elements to our selection criteria. The governance model should be adaptable to the African context or should have been already applied in African countries, they should consider the topics of land and/or technology since the project is about land tenure recording tools and they should analyse the hierarchy-market-network relationship. The relation of the governance models and the criteria is summarised in Table 1, presented in section 3 (page 11).

Among the selected models, three are part of the "Public governance" approach: 1) Framework for Understanding Policy Competences and Capabilities 2) Conceptual Framework for the Shifts in Modes of Environmental Governance and 3) The Governance Assessment Tool and three are part of the "Good governance" approach promoted by international organisations. They are: 1) Multi-level Governance Assessment-OECD, 2) Framework and Guidelines in Land Policy Africa and 3) Land Governance Assessment Framework. This balance between "Public governance" and "Good governance" models will support the creation of a model that combines academic rigour with factors considered by international organisations when promoting good practices.

Each model has different strengths that we are considering to build our own governance model. The Framework for Understanding Policy Competences and Capabilities, allows us a better understanding of both, the relation state-market-network and the relevance of capacity development. It also has the strength of considering the sustainability of the policy, capacity development and technology and information sharing. The Conceptual Framework for the Shifts in Modes of Environmental Governance, also supports the understanding of the hierarchy-market-network and at the same time, provides insights in the evolution of the governance model through time. This is of high relevance since previous mapping policies have been implemented. This situation also applies to the Governance Assessment Tool, which evaluates the governance arrangement through semi-normative qualities. The model allows an understanding from a contextual perspective of the governance factors that can hinder or limit the implementation of technologies.

The Multi-level Governance Assessment-OECD is one of the most influential models worldwide. It has influenced the international agenda regarding specific governance

elements such as transparency. The Framework and Guidelines in Land Policy Africa is a governance model that has resulted from an important social agreement regarding normative expectations of Land Governance. Finally, the Land Governance Assessment Framework model is one of the most developed models applied in Africa and provides a deep understanding of land issues in Rwanda, Kenya and Ethiopia.

In the next deliverable, our objective is to build an its4land model that support the implementation of land recording tools in East Africa. The model in Deliverable 7.3, will be developed based on modifications in one of the selected governance models or it will be composed considering different elements present in the selected governance models.

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