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Towards improved governance of land in Chile: Challenges and opportunities for strengthening land management and land administration

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Abstract

The research attempts to assess the status of land governance in Chile by means of a set of indicators derived from relevant frameworks and internationally accepted guidelines including the Land Governance Assessment Framework of the World Bank (Deininger et al., 2012), the Global Land Indicators (GLII) of GLTN (GLTN, 2017) and the VGGT of CFS (Committee on World Food Security, 2012), in addition to the land-related indicators proposed by the Sustainable Development Goals (United Nations General Assembly, 2015). To develop a harmonized and contextualized assessment framework, a comparative analysis was carried out to determine, on the one hand, the comprehensiveness of each indicator framework or guideline, and, on the other, to identify the gaps which are relevant and specific for the case of Chile.

Through semi-structured interviews with national and international experts as well as civil servants and researchers, experiences different land-related subject areas were collected and triangulated with secondary sources of information, to provide an overview of land governance in Chile, particularly regarding its main strengths and weaknesses.

The study argues that the land sector in Chile presents critical problems which hinder severely the achievement of several political goals aiming at poverty reduction, economic growth and environmental sustainability. The country is characterized by high socioeconomic inequality and by a rather “discriminatory” approach to development, especially with respect to its land.

The study presents evidence showing that although in some aspects the situation of land governance is positive or improving, in many others the conditions are unsatisfactory and either stagnated or deteriorating. Some of the key areas for improvement are those related to records of land tenure rights (cadastre and land registry), access to land in rural areas, indigenous land rights and land restitution and regulated spatial and land use planning.

Zusammenfassung

Die Dissertation bietet eine detaillierte Analyse des Landsektors in Chile aus einer *Governance*-Perspektive, abgeleitet aus international akzeptierten Konzepten und Indikatoren, darunter das *Land Governance Assessment Framework* der Weltbank (Deininger et al., 2012), die *Global Land Indicators* (GLII) des *Global Land Tool Network* (GLTN, 2017) und die Freiwilligen Leitlinien für die Verantwortungsvolle Verwaltung von Boden- und Landnutzungsrechten, Fischgründen und Wäldern (VGGT) des Ausschusses für Welternährungssicherheit (CFS, 2012), sowie die von den UN-Nachhaltigkeitszielen vorgeschlagenen Land-bezogenen Indikatoren (Generalversammlung der Vereinten Nationen, 2015).

Um einen harmonisierten und kontextualisierten Bewertungsrahmen zu entwickeln, wurde eine vergleichende Analyse durchgeführt, um einerseits die Vollständigkeit jedes Indikatorenrahmens zu durchleuchten und andererseits die für den chilenischen Kontext relevanten Lücken zu identifizieren.

Im Rahmen von semi-strukturierten Interviews mit nationalen und internationalen Experten sowie Beamten und Forschern, wurden Informationen aus verschiedenen Themengebieten gesammelt und mit sekundären Informationsquellen abgeglichen und analysiert, um einen Überblick über den Status der *Land Governance* in Chile zu schaffen, insbesondere hinsichtlich ihrer Stärken und Schwächen.

Aus der Analyse ergibt sich, dass der Landsektor in Chile kritische Probleme aufweist, die die Erreichung zahlreicher politischer Ziele, die auf Armutsbekämpfung, Wirtschaftswachstum und ökologische Nachhaltigkeit abzielen, schwer behindern. Das Land ist gekennzeichnet durch eine hohe sozioökonomische Ungleichheit und eine eher "diskriminierende" Herangehensweise hinsichtlich der Planung und Implementierung von entwicklungsrelevanten Maßnahmen, insbesondere in Bezug auf Land.

Die Studie liefert grundlegende Informationen, die belegen, dass der Zustand der *Land Governance* lediglich in einigen Themengebieten positiv ist, in vielen Bereichen jedoch, sind die Bedingungen unbefriedigend und stagnieren entweder oder verschlechtern sich.

Einige der wichtigsten Bereiche wo der Verbesserungsbedarf am bedeutsamsten ist, sind jene in Zusammenhang mit der Dokumentation von Landrechten (Kataster und Grundbuch), Zugang zu Land in ländlichen Regionen, indigenen Landrechten und Landrückgabe, und Raum- und Landnutzungsplanung.

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1 Introduction

1.1 Research background

In June 1976, the UN Conference on Human Settlements ("Habitat I") in Vancouver sent key messages to governments around the world. Among these, the following two statements were particularly relevant:

> "Land, because of its unique nature and the crucial role it plays in human settlement, cannot be treated as an ordinary asset, controlled by individuals and subject to the pressure of the market and its inefficiencies".
>
> "Private land ownership also is a principal instrument of accumulation and concentration of wealth and therefore contributes to social injustice; if unchecked it may become a major obstacle in the planning and implementation of development schemes".

In addition, even before the above-mentioned conference, the German Federal Constitutional Court (1967) stated that:

> "Rural land transactions should not be done as freely as those made with any other "capital". The fact that land is limited and indispensable forbids leaving its use to be determined by the obvious interplay of market forces and individual interests. An equitable legal and social system calls instead for the public interest to play a much stronger role in the case of land than in the case of other assets. That is why land cannot be treated as moveable goods in legal relationships".

Nowadays, after several decades, we observe that the sustainability of the land sector in many countries is still undermined by misuse of resources and abuse of power structures. This has dreadful consequences such as poverty intensification or perpetuation, environmental degradation and economic or social distortions.

Augustinus (2007) states that "[…] in most countries, most land policies, laws and procedures are biased against the poor. The poor remain trapped in poverty in part because they cannot access and use land they need to grow crops, build houses and establish businesses".

In 2012, the Committee on World Food Security (CFS) passed the "Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests" in the Context of National Food Security (VGGT), with the aim of providing governments around the world with concrete guidance on how to make governance

of land, fisheries and forests more responsible. As argued by Hall, Scoones and Henley (2016, p. 14), “the VGGT reflect knowledge and lessons learnt from decades of work on land tenure and governance of natural resources”.

Meanwhile many countries are implementing programs, with the help of development cooperation institutions, to support the implementation of the VGGT including components of awareness raising, capacity development with country-based learning programs and direct support at country level (ibid.)

As stated in the guidelines, land policies should be developed following a legitimate vision and should promote the existence of healthy dynamics within the land sector. A vision without the means for its realization is destined to become just a piece of paper, therefore, for a land policy to have a positive impact, there must be tools or instruments allowing its proper implementation. These instruments are usually of legal or technical character, but may also include interventions aiming at long-term cultural changes and socioeconomic re-structuring (Committee on World Food Security, 2012).

In the context of the present research, good land governance will be understood as an emerging characteristic observable in a functional government which manages and administers its land sustainably. In this sense, land governance will refer to the land sector as a system, and to how this sector operates to provide the citizens with what they need and/or demand at the appropriate time and spatial scales.

1.2 Problem statement

The situation of the land sector is quite serious in numerous countries in Africa, Asia and Latin America. Corruption in land related institutions and processes, overlapping or missing land information, lack of appropriate land management instruments to cope with economic development in an environmentally and socially friendly manner, lack of recognition of indigenous rights and gender inequality, among many others. Chile is unfortunately no exception in some of these aspects and land is too often treated as any other sort of capital.

The land sector in Chile presents grave problems which hinder severely the achievement of several political goals aiming at poverty reduction, economic growth and environmental sustainability. These problems are often of structural character, thus making their solution very complex.

The country is characterized by high socioeconomic inequality and by a rather “discriminatory” approach to development, especially with respect to its land. The government, at all administrative levels, devotes its bigger efforts to promoting the

development of urban areas, particularly, by use of quite limited planning instruments.

As mentioned by Jadue (2012), during the last 30 years in Chile cities have grown with a pattern guided almost exclusively by the market. The land use, as stipulated by the national policy for urban development of 1979, has been defined mainly by profitability and the territory has been segmented radically, generating a clear divide between neighbourhoods for the rich, the middle class and the poor. Not to mention that the development of rural areas has been consistently left aside.

In addition, the current international trend towards development of responsible land policies has not yet been considered in the national policy making environment. In other words, although the country has a legal framework regulating several aspects relevant to the land sector, Chile doesn't have an overarching land policy framing the process of development of courses of action or formulation of legal instruments for the implementation of the visions set by the government in representation of the society.

The result of these deficiencies is a quite disordered land sector which has not yet released its potential for strengthening nature protection, poverty reduction and economic development, among others. On the contrary, the current legal framework is often an obstacle rather than a catalyser in these aspects.

The Chilean law specifies four hierarchical levels for the administration of the country's territory; namely, national, regional, provincial, and municipal. Although this structure is logical in principle, it involves a set of planning instruments which are neither comprehensive nor integrated, and which leaves the country with significant deficiencies in terms of functionality and coherence. These deficiencies are less related with the nature of the structure, but rather with how policies are developed and implemented.

Furthermore, at the political level, the problem is aggravated by the fact that the processes of land use planning and land management in general are perceived as merely a matter of utilizing a set of tools to solve existing dilemmas, instead of showing a path to promote an effective development for the country. Moreover, very often the instruments end up being applied in a reversed fashion, that is, putting the medium and long term objectives aside and concentrating almost exclusively in regularizing already specified projects. There is no apparent vision or future-oriented planning, but rather an ad-hoc reaction to the biggest problems of the moment. In other words, rather than a planning system, the government often makes use of a collection of procedures for the regularization of already existing problems.

So far, the absence of a concrete land policy and a nearly absolute focus on urban development has provided reasonably good economic outcomes for the stakeholders who normally benefit from economic activities which are, in one way or another, linked to these areas. Nevertheless, the disorders generated in the rural areas because of these urban development processes are dreadful. Furthermore, the unequal distribution of resources, due to partly to lack of proper methodologies, but also to the particular path of development followed since colonial times, generates highly differentiated social classes, leaving the poor or less fortunate with virtually no chances for effectively improving their quality of life.

On the other hand, per progress report of the Millennium Development Goals (MDGs) of the year 2010, Chile made substantial progress towards the achievement of the MDGs. For example, in the year 1990 38.6% of the population lived under the poverty line. Twenty years later, the proportion decreased to 15.1%. Furthermore, in the year 1990 13% of the population lived under conditions of extreme poverty; till 2010 this proportion had decreased to 3.7% (Government of Chile, 2010). It is also interesting to highlight that in the year 2009 the proportion of people living under the poverty line was higher in urban areas (15.5%) than in rural areas (12.9%), a situation which was opposite until the year 2003. The extreme poverty between 1990 and 2009, however, was persistently higher in rural areas (4.4% in 2009) than in urban areas (3.6% in 2009) (ibid.).

Nonetheless, there are still important challenges to be dealt with because of unequal economic growth and with respect to the achievement of environmental sustainability, for which the country must undergo considerable transformations, even more considering the necessary standards required by OECD membership. In fact, the Evaluation of Environmental Performance conducted by OECD in 2005 highlighted important achievements in this area, nevertheless it formulated 52 recommendations for improving the environmental performance and mentioned that there is still a long way ahead to comply with the standards achieved by most of the members of the OECD. For this to happen, major strengthening and development of related institutions will be crucial (Government of Chile, 2008). Eleven years later, the 2016 OECD Environmental Performance Review mentions that “strong growth has been accompanied by a stubborn persistence of income inequality and increasing environmental pressures, notably air pollution, water shortage, habitat loss, and soil and water contamination” (OECD/ECLAC, 2016). Indeed, the OECD Income Inequality Indicator shows that with a score of 0,465 Chile is still the most unequal OECD member, followed by USA (0,396) and Turkey (0,393) (OECD, 2017).

A very interesting effect of Chile's OECD membership is that the government doesn't look anymore at other countries in the region to comparatively evaluate its successes or failures, but rather at other OECD members, including the most developed countries in the world, making the challenge considerably bigger than before since the country is not anymore "one of the best" but rather "one of (if not) the worse".

Many issues are observable with respect to land tenure and property regimes as well, above all regarding indigenous population and the related policies. For decades, the state has been dealing with the claims made by indigenous groups for restitution of rightful ancestral land rights, in areas which are currently under completely different legal situations. Although progress has been made, there are still major challenges to be addressed in this respect, particularly regarding meaningful participation of the indigenous population in political decision making processes.

A State is certainly a complex system composed by numerous components or subsystems like the different autonomous branches, parties, sectors, the press, people, non-governmental entities and enterprises and a highly influential international context. All these, in the case of Chile, show a stubborn tendency to operate independently from each other, following self-established norms (Waissbluth, 2003, p. 2)

There is thus a need for a systemic understanding of the role of land policy, land management and land administration for the accomplishment of political goals such as poverty reduction, economic growth and environmental sustainability. Furthermore, within the complex frameworks of land-related policies, there is a need for a better comprehension of the relationships among their different components to identify requirements at different institutional and operational levels, with due consideration of their general and specific contexts.

The Post-2015 Development Agenda is now the major international frame and orientation road map for the achievement of sustainable development around the world. Chile certainly made substantial efforts for the achievement of the MDGs, but the future challenges are yet to be grasped. The Sustainable Development Goals (SDGs) make direct reference to the need for secure land rights for all and makes explicit reference to gender disaggregated targets. This will certainly be a key area of work in the years to come in all thematic areas linked to the land sector.

1.3 Research objectives

This research aims on the one hand at determining what the boundaries and interrelationships of concepts such as land governance and land management and sustainability are in the Chilean context.

On the other hand, the research attempts to identify the success factors which determine the establishment and maintenance of good governance in the land sector, and how these factors may contribute to poverty reduction, economic growth and environmental sustainability.

In addition, this work intends to draw attention to the specific deficiency which exists in research regarding Chile in the field of land policy and land governance. The concept of land governance certainly goes beyond the spatial dimension of a government; it involves how the systems are organized and how they operate and what outcomes they have.

The overall objective of this research therefore is to gain in-depth understanding of the concept of “Land Governance” and its role in the establishment of a functional land sector in Chile to realize its full potential for fighting poverty, promoting economic growth and ensuring environmental sustainability.

The present research thus explores the characteristics of the land sector in Chile with respect to its governance. In other words, it looks at the problems concerning the system’s arrangement, the dynamic and static interrelations among the various stakeholders involved, and, above all, the relationships which exist between land policy, land management and administration, the State, and the society, in terms of the role which the land sector should play in the achievement of sustainability.

Within this frame, the specific objectives of this research are:

1. To assess land governance in Chile by use of measurable indicators.
2. To identify and analyse the links between improved Land Governance and the achievement of the political goals of poverty reduction, economic growth and environmental sustainability in Chile.
3. To propose a set of measures for improving land governance in Chile to reduce poverty, strengthen economic growth and protect natural resources.

1.4 Research questions and hypotheses

To attain the objectives mentioned above, the following research questions will be answered:

1. What are the main strengths and weaknesses, opportunities and threats of the land sector in Chile ?

2. What measures can be identified to improve land governance in Chile?
3. What are the main challenges/bottlenecks for the implementation of these measures?

The research is based on the following hypotheses:

1. Governance of the land sector in Chile is currently weak.
2. This weakness is a major hold back for the achievement of political goals such as poverty reduction, economic growth and environmental sustainability, especially in rural areas.
3. The main weaknesses lie in the spatial and land use planning systems as well as in the land conflicts regarding indigenous population and in the lack of a comprehensive land information system and spatial data infrastructure.
4. To improve the systems mentioned above, major capacity development interventions will be necessary, with a focus on individual as well as institutional development measures at all levels.

1.5 Research outline

The report begins with a review of key literature on land governance and its main components, particularly land policy, land management and land administration in the context of the Post-2015 Development Agenda, with special focus on current international guidelines for responsible land governance and available approaches and tools for assessment and monitoring. To facilitate understanding and applicability in subsequent chapters, the review will attempt to delineate the conceptual frame in a hierarchical manner going from an overall perspective of the land sector and a progressive dive into the different components, relevant characteristics and functionalities. Chapter 2 will also present an overall conceptual frame concentrating on the role of land governance in the achievement of sustainability, with especial focus on poverty reduction, economic growth and environmental sustainability within the frame of the Sustainable Development Goals (SDG).

Successively, the methodology chapter will concentrate on the research design, with emphasis on the derivation of measurement instruments for determining the status of land governance in Chile and identification of bottlenecks. Furthermore, this chapter will refer to the sources of information to be used and the procedures for processing and analysing information and the approach to be employed to presentation and discussion of results.

Chapter 4 will then present the comparative analysis of relevant indicator frameworks for assessing land governance in Chile and the process of contextualization and adaptation of indicators to the singularities of the country.

Chapter 5 and 6 will be devoted to the processing and analysis of data as well as presentation and discussion of results. Attention will be drawn towards the strengths and weaknesses as well as opportunities and threats characterizing land governance processes and structures in the country. Subsequently, Chapter 7 will provide conclusions and recommendations for improving land governance in Chile, where special consideration will be placed on the potential challenges which may be faced in the implementation of these recommendations and the possible ways to overcome them.

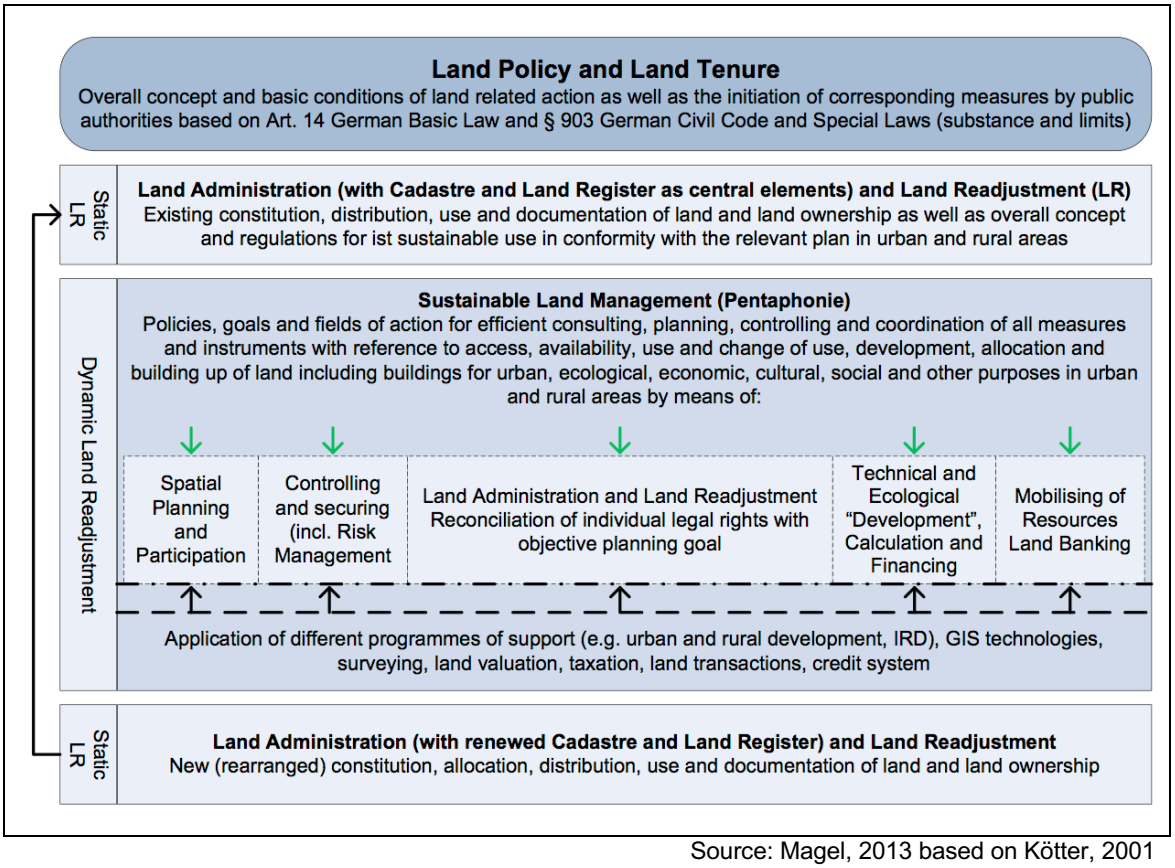
2 Literature Review

2.1 Land governance and its role in the post-2015 development agenda

Land policies are an essential element of the strategies towards the achievement of sustainable development. Figure 2-1 shows the complex arrangement of land policy, land tenure, land management and land administration in Germany as explained by Magel (2013, based on Kötter, 2001). In this representation, the overall concepts and basic conditions for land related actions are anchored in the legal framework regarding land and land tenure.

In Germany, as in many other countries, there is no single official document called "Land Policy" (Magel et al., 2015). Nevertheless, there is a coherent arrangement of legal instruments that constitute the country's "land policy framework" (GIZ, 2016).

Figure 2-1. Land policy, land tenure, land management and land administration in Germany



Source: Magel, 2013 based on Kötter, 2001

The figure indicates that land management is related to the dynamic processes that have an impact on the territory by inducing changes that are motivated by specific purposes, for example for, land development (e.g. housing, construction of public or private infrastructure, agricultural investment, etc.), nature protection (e.g.

delimitation of national protected areas, buffer zones, water retention areas, etc.)or conflict resolution (e.g. boundary disputes, conflicting or overlapping uses, etc.), among other; all which should be subsequently reflected in the static component, namely the land administration activities, that refer mainly to updating the cadastre and the land registry (GIZ, 2016). Therefore, there is virtually a constant cycle of dynamic processes and static phases in accordance with the local contexts and the land policy targets. The cycle therefore requires long-term perspectives as a solid basis for sustainable development.

Mattsson and Mansberger (2017) refer to dynamic and static dimensions of land sector as well, and argue that:

> “Land policy, land management, and land administration can be seen from a static point of view. The static view is that conditions for land use shall not change, so that the land users can be sure of their rights to use the land. It can also be important for the government and society in a broad sense to stop misuse of land by prioritizing current use. But also the dynamic perspective has to be considered. Today the society is constantly changing from economic and social points of view. The consequence is that there can be a need to change land use. Such changes can be called land development. Instruments like land law, spatial planning and land use planning are needed to take care of this. All such interventions in land rights are related to the creation of what Foxon (2013) and Shrestha et al. (2014) call actors’ action space. That is what defines the legal limits of the actors’ action possibilities.”

Nowadays, the definitions of land policy are abundant. There is nevertheless consensus on the overarching character and profound relevance of a functional land policy framework in a given country. The Land Policy Guidelines by the EU Task Force on Land Tenure (2004, p. 3) state that:

> "land policy aims to achieve certain objectives relating to the security and distribution of land rights, land use and land management, and access to land, including the forms of tenure under which it is held. It defines the principles and rules governing property rights over land and the natural resources it bears as well as the legal methods of access and use, and validation and transfer of these rights. It details the conditions under which land use and development can take place, its administration, i.e. how the rules and procedures are defined and put into practice, the means by which these rights are ratified and administered, and how information about land holdings is managed. It also specifies the

structures in charge of implementing legislation, land management and arbitration of conflicts".

Certainly, the difficulties faced by developing and transitions countries in establishing such a framework are often severe. For example, the failure to implement principles of responsible governance of property rights over land, such as the implementation of adequate safeguards, or to achieve a fair distribution of land resources which guarantees access to land particularly to marginalized groups, are common setbacks in numerous countries around the world.

The EU Land Policy Guidelines elaborate on the links between land and other major policy areas, which, certainly, have a fundamental importance in the development strategies, for example poverty reduction, human rights and social justice, gender equality, agricultural development, conflicts and post conflict recovery, among others (EU Task Force on Land Tenure, 2004).

Table 2-1. The links between land and other major policy areas

Policy area	**Link with land**
Poverty reduction	Increasing security of rights to land and related natural resources for landless and land-poor families is fundamental. Depending on the local contexts, this may imply re-distribution of land, registration of rights, reform of regulations, e.g. on land markets, ownership structures (common or customary v/s other tenure regimes) and gender equality and protection against land grabbing and forced evictions.
Citizenship, human rights and social justice	Asymmetric or unbalanced power structures have dreadful impacts on specific components of a society, particularly on those living under disadvantaged conditions, for instance indigenous people in many countries, women and the rural poor.
Gender equality	Social equality is hardly achievable if equal opportunities for women and men are not guaranteed. This applies to all aspects including land rights and secured access to them by both women and men under formal and informal systems of tenure.
Agricultural development	In many countries agriculture lays at the heart of the economic system, especially for the rural population. Securing land rights is a precondition for promoting investment and rural development.
Conflicts, and post-conflict recovery	Land conflicts occur because of various circumstances, from weak legal frameworks and lack of enforcement of formal or informal tenure systems to war and post-war contexts. Resolution of conflicts over land requires a

	functional system guaranteeing tenure security for all. I countries were land conflicts occur, have occurred or a likely to arise, the development and implementation of an appropriate land policy is fundamental.
Land administration and governance	One of the most common reasons for tenure insecurity is the inexistence of a sound land administration system providing the government and the citizens with adequate land-related information.
Local government and decentralization	The principle of subsidiarity indicates that the authority should be allocated at the lowest appropriate level. The empowerment of local authorities and, therefore, effective decentralization relies heavily on this principle.
Taxation	As a major source of revenue for local and national governments, a land taxation system must facilitate poverty reduction and promote social equity and environmental sustainability, discourage underutilization of land and prevent land speculation.
The environment	Land policies play a crucial role in prevention of environmental degradation, particularly through the establishment of restrictions on land rights aiming at protecting specific areas from unsustainable land uses.
Land use planning	The impacts of unplanned land use are often disastrous, even more in areas of high concentration of the population or in areas of ecological interest. Land policy should provide clear guidelines for a sustainable use of land and its natural resources through adequate planning.

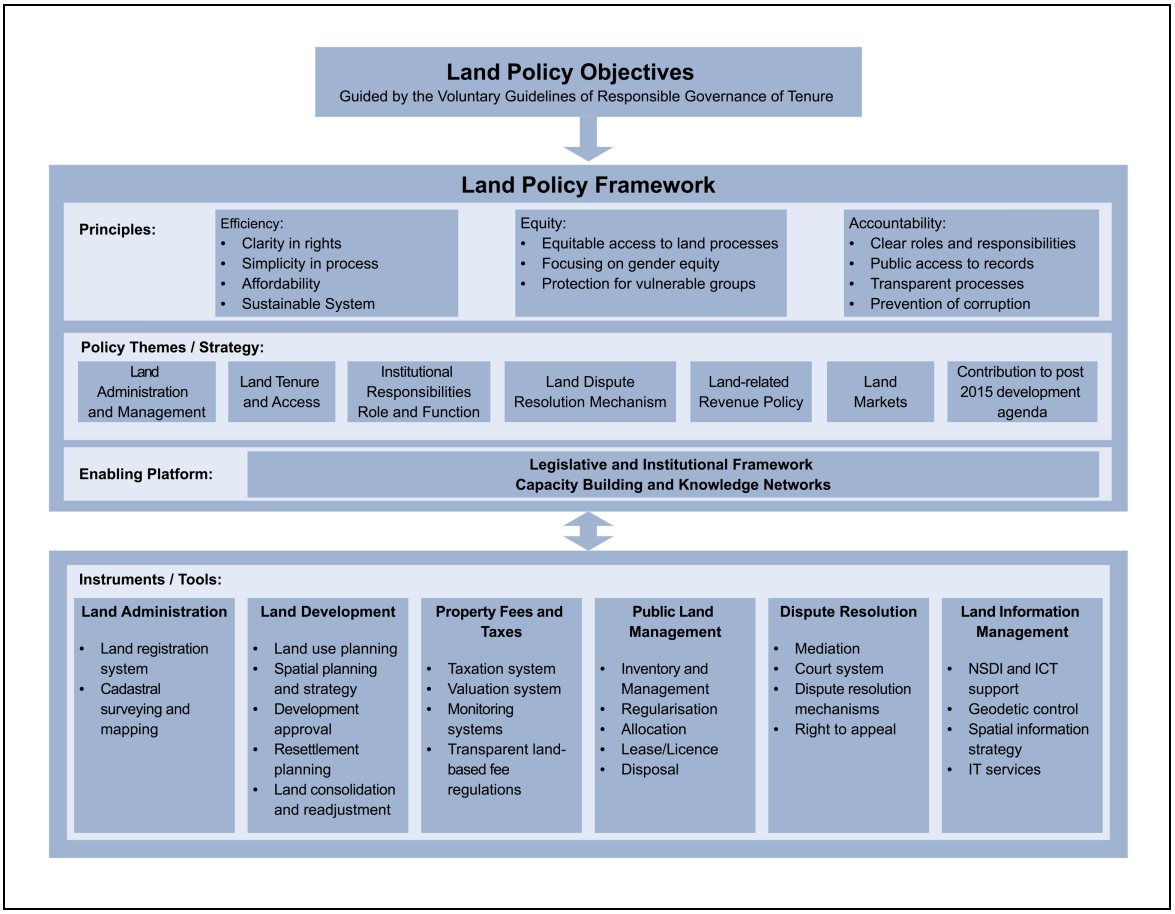
(EU Task Force on Land Tenure, 2004, pp. 4-10)

As shown by Zimmermann (2013) in Figure 2-2, a land policy should first set the objectives which shall be achieved through the implementation of the policy framework. Since 2012, the objectives are in many countries increasingly aligned with the principles stated in the "Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security" (VGGT) of the Committee on World Food Security (CFS) (2012).

With the main goal of providing guidance on what responsible governance of tenure of land means and how it can be strengthened, the VGGT were developed in a highly participatory manner, with broad consultation among governments, civil society organizations, professional organizations and the academia. The resulting guidelines were approved in May 2012 and have been mainstreamed among relevant sectors ever since. Bilateral and multilateral donors, such as Germany, France, Netherlands, the United States, the United Kingdom, European Union, Food and Agriculture Organization (FAO), and the International Fund for Agricultural Development (IFAD), among others, have committed substantial

resources to supporting partner countries in the application of the VGGT to strengthen their respective land sectors by making land governance more responsible.

Figure 2-2. General land policy framework



Source: Zimmermann, 2013

The Global Donor Working Group on Land is a network facilitated by the Global Donor Platform for Rural Development, composed of 24 bi- and multilateral donors and international organizations working together to coordinate activities on land-related programs and promote exchange of experiences and information with the commitment of supporting improved land governance worldwide (Global Donor Platform for Rural Development, 2017). The working group was established in 2013 and its core functions include, in addition to those mentioned above, jointly advocating for the relevance of land issues in policy processes that affect international development and publishing and maintaining the “Land Governance Program Map”, which currently contains information on VGGT application in over 650 land-related programs, of which over 240 are currently active in more than 110 countries (Global Donor Working Group on Land, 2017).

The working group provided substantial inputs to the negotiations of the indicators for the Sustainable Development Goals in 2015 and 2016, with focus on securing a land indicator under Goal 1 (end poverty) and to support the appropriate language of land indicators under Goal 5 regarding gender equality and goal 11 concerning sustainable cities and communities (Global Donor Platform for Rural Development, 2017)

In line with the VGGT, the overall objectives stated in Figure 2-2 aim at securing land rights for all, improving livelihoods and meaningful participation of all stakeholders and strengthening socio-economic development and in general, a sustainable management of land and the related resources for effectively contributing to sustainable development.

In this concept, the land policy framework is composed by a set of thematic areas which are interrelated and operate back to back based on an enabling platform constituted by legislative and institutional frameworks and consequential capacity development activities to cope with the challenges which constantly arise because of the complex nature of the land sector. The land policy framework operates also based on the principles of efficiency, equity and accountability.

However, a land policy without the actual instruments for its implementation is not more than a piece of paper. This is the reason why concrete instruments for land administration, land use planning, property valuation and taxation, public land management, land information management and land conflict resolution must be developed and implemented.

Land conflict resolution is in fact a crucial component of the daily work of land-professionals. The type of conflict may range from physical issues, such as boundary and overlapping land uses, to social problems related to segregation and social inequality, particularly with relation to vulnerable groups like the poor, women, small scale farmers and indigenous population.

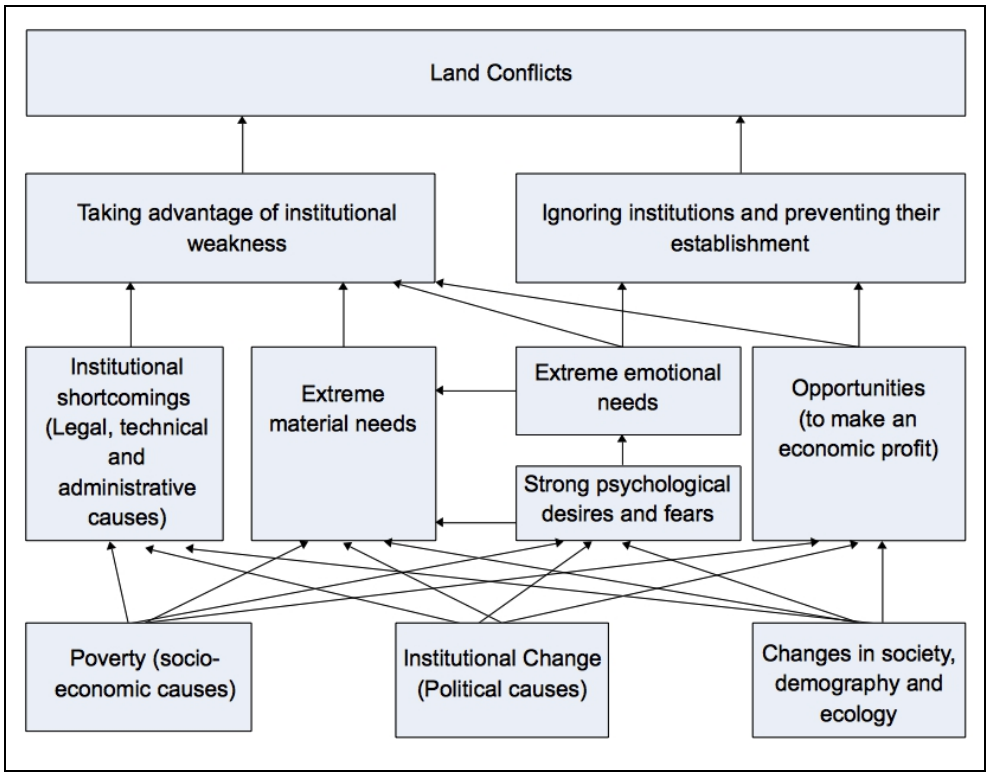
As argued by Wehrmann (2008, p. 1), land conflicts may occur in many forms and may arise between single and multiple parties and the level of complexity of the conflicts themselves and their resolution varies accordingly. A very common example of land disputes involving multiple parties is the type of conflict concerning corruption and fair recognition of land rights.

For instance, “[…] in many countries indigenous people have been dispossessed or live at risk of being dispossessed due to either failure to recognize their rights to land or invalidation of those rights by the state, or through expropriation or privatization” (UN Habitat/OHCHR, 2005, quoted by Wehrmann, 2008, p. 3). Furthermore, in countries where the indigenous people have historically been

disadvantaged regarding their land rights, serious conflicts can arise even decades or generations after the occurrence of detrimental events (e.g. enactment of specific laws, etc.) (ibid).

A changing context often gives birth to land disputes. This applies not only to global trends such as climate change and the conflicts related to natural catastrophes, or global economic crises and the related disputes arising because of an increase scarcity of land-related resources, but also to local conditions such as legal reforms and economic re-structuring or, simply, development (Wehrmann, 2006, p. 5).

Figure 2-3. Interdependency of land conflict causes



(Wehrmann, 2006, p. 5)

As shown in Figure 2-3, changing frame conditions provoke conflictive situations which can, at the end of the day, result in land conflicts because of alterations in the needs of the population and the means for them to satisfy their requirements.

These aspects lie at the centre of the discussions regarding governance of land tenure and how can land professionals contribute to strengthening governance through sustainable land policies and the associated institutional and regulatory frameworks. In this context, there are crucial starting points that require opportune discussions and decisions based on specific rationalities, values and visions for the country. For example, as mentioned by Davy (2012), the design of property relations demands extremely serious attention.

As shown in Table 2-2, "[…] the spatiality of property informs the design of land policy about the relationship between land uses and property uses" (Davy, 2012, p. 246). The table proposes that the different types of land use require specific property rules, in fact, property regulation can be an attempt from the side of the legislator to attenuate the tension between land use types (existing or planned) and the corresponding property rights (ibid.). It is indeed the task of land managers to shape property relations with due consideration of the spatial relationships and complexities.

Table 2-2. The spatiality of property: design principles for land policy

Restricted land uses Based upon private property relations	Land use rationality	**Shared land uses** Based upon common property
Insular uses require property rules which support autonomy, but also limit harm (nuisance) to adjacent land uses	INDIVIDUALIST weak grid/weak group Lockean property	**Opportunistic uses** require property rules which allow the flexible and possibly temporary appropriation and use of spatial commons
Kinship uses require property rules which promote the inclusion of similarity and the exclusion of incompatible uses	EGALITARIAN weak grid/strong group Rousseau's property	**Collaborative uses** Require property rules which promote collective action and the suitable management of the common resource
Corporate uses require property rules which help the corporation to control closely all inferior uses by superior management nodes	HIERARCHICAL strong grid/strong group Hobbesian property	**Structural uses** Require property rules which give suppliers comprehensive control, but puts them under "common carrier" rule
Container uses require property rules which facilitate multiple uses with little or no mutual exchange or transaction cost	FATALISTIC strong grid/weak group	**Environmental uses** require property rules which open up access as much as possible, yet prevent the degradation of the environment

Source: (Davy, 2012, p. 246)

In many parts of the world there is an urgent need for better land management, since in numerous countries land resources are not only being negatively affected by processes of global relevance such as climate change and ever increasing population, but also unfavourable local political and economic conditions supporting short term planning and perpetuating overutilization of natural resources (Larsson, 2010). Responsible land management provides the tools and methods for using the territory in a sustainable manner and implementing healthy urban-rural interrelationships, fostering equal treatment of all regions, provision of advice in

dynamic environments, facilitating planning and implementation of readjustment and construction measures, and coordinating and enabling cooperation in a horizontally and vertically participative manner. In other words: linking all actors for the development and implementation of holistic solutions (Magel, 2011, p. 374).

The understanding of what land management is and what it entails can change from one school of thought to the other. Some approaches are more practical, and others are more theoretical. For example, Professor Gerhard Larsson (Larsson, 1997, p. 9) argued that:

> "The concept 'land management' is a comprehensive expression for activities aiming to fulfil established goals for the use of certain land resources. These activities may have the purpose of promoting efficient land use within an existing pattern, i.e. they may be mainly of a monitoring, administrative and controlling nature. Alternatively, they may have the main aim of developing the land, by making substantial investment or changing existing land usage. In both cases, the starting point is to choose the goals. They will determine what should be done."

In most cases land management professionals should be able to participate actively and adopt leading roles in a wide spectrum of activities facilitating the development of the territory, both rural as well as urban.

The focus is therefore set on the holistic understanding of land management and how the goals of the society are put in practice through the land management tasks and functions. There is thus also a hierarchical perspective, which provides land management with more than just a paradigmatic connotation, but also a practical and technical structure of functions leading to the provision of required services.

Land management must be spatially enabled if it's to contribute to the achievement of sustainable development and responsible land governance. Furthermore, a spatially enabled and participatory land management built up on solid land and spatial planning policy frameworks must provide services to both private and public sectors. These services have a direct relationship with the needs of the society, which play a crucial role in attaining an equitable quality of life.

As part of the country context and considering professional and institutional capacity, it is crucial to reflect on aspects such as education, research and capacity development at all levels (individual, institutional and society/system).

Nowadays it is quite clear that this arrangement or understanding is not implemented, or at least not fully realised, in numerous countries around the world, particularly in developing and transition countries. The reasons for this failure may

lie in any of the aspects discussed above. For example, if the need for the implementation of capacity building measures on land issues is overlooked, the land administration functions would almost certainly malfunction and the services to the society wouldn't be provided appropriately. Likewise, if the land policy and spatial planning frameworks are weak, the whole system stumbles and there is hardly any chance for the society to receive the necessary services and attain sustainable development and responsible land governance. In principle, if any of the components of the vision for sustainable land management is hindered or malfunctions, the development targets will not be achieved and the society will suffer, particularly those groups which are most vulnerable like the poor, women, small scale farmers, pastoralists and indigenous people, among others. For all these reasons, the importance of this arrangement must not be disregarded.

According to Mauro, Bending and Taylor (2009), "[…] land governance refers to formal and informal processes of allocating and securing rights to land, both within the state and outside of it".

The conceptual discussions often lead however to more complex definitions including a broader perspective of the land sector and not only to the processes associated with allocation and securing land rights.

Palmer, Wehrmann and Fricska (2009) argue that definitions of governance are variable, but there is at least consensus on four very important aspects; firstly, governance is conceptually broader than government. In the land sector, the stakeholders often reflect a broad spectrum of state actors, customary authorities, non-state actors, and the private and professional sectors, all which should be considered when addressing governance.

Second, governance emphasizes on processes and institutions. A governance paradigm also implies thus a dynamic system. From an institutional perspective, governance refers to the rules and the structures – both statutory and customary – that govern and mediate relationships, decision-making and enforcement (ibid).

Third, by emphasizing on authority, governance addresses the importance of politics and power relationships, an issue widely recognized as particularly relevant in the land sector (ibid.).

And fourth, governance is conceptually neutral. The quality of land governance can be good or weak, improving or declining. To determine whether governance is effective or weak, one must look at processes as well as outcomes (ibid.).

Global discussions on this topic have been quite intensive in the development of a definition as to what land governance is and what its connection with land

management and land administration is or should be. As explained in previous sections, Land management and land administration facilitate the achievement of sustainable development by means of dynamic as well as static components of land development, registration, planning and economics among many other professional disciplines, and therefore represents a holistic approach to the understanding and operation of the land sector.

Enemark (2009, p. 4) mentions that “Land Governance is about the policies, processes and institutions by which land, property and natural resources are managed. This includes decisions on access to land; land rights; land use; and land development. Land Governance is about determining and implementing sustainable land policies”.

Thus, land governance is seen in practical terms as a crosscutting concept referring to the political/governmental dimension of land management and land administration, and presents a close relationship with the implementation and monitoring of all policies regarding land which point at conducting the development of a country by means of properly managing its land.

During the last decade, many institutions have made substantial contributions to making land governance more responsible in countries around the world. Although the knowledge base on the topic has accordingly grown quite remarkably in the last years, there is a need for further enhancing the understanding of the land sector and the structures determining its usefulness or potential impacts on the development of a country, particularly with respect to poverty reduction, economic growth and environmental sustainability.

As stated by Palmer, Wehrmanm and Fricska (2009), "Good governance can be characterized by principles of universality of tenure security, equitable participation, adherence to the rule of law, sustainability, and effectiveness and efficiency". The authors further elaborate on these principles as follows:

- Access to land and natural resources should be equitable.
- Security of tenure should be provided to all members of society.
- Specific measures should be taken to ensure access to land for, and the security of land and property rights of, women.
- Decision-making regarding land and natural resources should be transparent, with processes open to all members of society.
- The rule of law should be applied to all.
- Land administration should be decentralized based on the principle of subsidiarity, i.e. taken at the lowest appropriate level and based on accountability.

- Effective and efficient land administration should be provided to all members of society.
- Sustainability should be ensured by taking a long-term perspective.

Based on these principles, it is evident that a reform of the land sector is quite a complex process and goes well beyond the reformation of land tenure structures and distribution of land rights. Furthermore, as indicated by FAO (2007, p. 4): "Governance in land tenure and administration cannot be separated from governance of other sectors"

Table 2-3. Examples of the legitimacy of land rights

Type of legitimacy	**Description**
Legal legitimacy (legitimacy through the law)	Ownership rights recognised by law including rights of individuals, families, and groups, and customary rights recognised by the law; Use rights recognised by law including leases and sharecropping agreements; Servitudes/easements on both private and public land
Social legitimacy (legitimate through broad social acceptance but without legal recognition)	Customary rights on land vested in the state in trust for the citizens; Customary rights on state land, e.g. forest communities; Informal settlements on private and public land where the state has accepted that it is not possible to relocate the people; Squatters on private and public land who have almost fulfilled the requirements for acquiring the land through prescription or adverse possession
Lacking legitimacy	Commercial developers who expect to profit by building in protected areas; Politicians and others who illegally appropriate state land for their own benefit.

(Palmer et al., 2009, p. 8)

According to UN-Habitat (2008), "the range of possible forms of tenure can be considered as a continuum". Across this continuum different tenure systems may operate and moving from one to the other may be possible through specific formal or informal procedures. For a country to increase tenure security, it is indispensable that all components of this continuum enjoy legitimacy (see Table 2-3). Palmer, Wehrmann, and Fricska (2009) elaborate on three situations, namely, when land rights enjoy legal legitimacy, when possess social legitimacy and when they have no legitimacy at all.

Land policies should take these forms of legitimacy into consideration and provide the guidelines for the development and implementation of the appropriate statutory and/or customary instruments.

With all the concepts explained above, the logical questions to ask are: how can we assess the quality of land governance of a country? And how can we monitor it in the long term?

The most prominent land governance diagnostic tool is the “Land Governance Assessment Framework” (LGAF), which allows for assessing the legal framework, policies and practices regarding land governance at country or sub-national level by use of a participatory and country driven process (World Bank, 2017). LGAF has been so far implemented in over 30 countries and several other are currently in the pipeline (ibid.).

The overall diagnostic is made through the assessment of 27 Land Governance Indicators grouped into five main topics or thematic areas, namely: 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 and 5. Dispute resolution and conflict management (World Bank, 2017).

These five thematic areas, broken down into 80 so-called dimensions, provide a comprehensive picture of the land sector. These dimensions are in fact specific research questions which need to be answered to get the “bigger picture”. Within the framework, the answers to these questions have already been pre-coded to facilitate and standardize the process (World Bank, 2017).

In addition, the CFS is presently devoting substantial efforts on developing an aggregated way to monitor the application of VGGT principles at country level. The first concerted monitoring exercise resulted in the publication of the report “Compilation of experiences and good practices in the use and application of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security” (Committee on World Food Security, 2016), which compiles the results of a total of 62 submissions from all over the world, including 36 country specific, 11 regional & multi-country and 15 global, covering a wide geographical area. The 62 submissions were received from different groups of stakeholders (governments, development partners, civil society and private sector) and covered a significant share of the experiences in implementing the VGGT since they were endorsed in 2012. The results show that the VGGT have been widely applied in Africa, Asia, Europe and Latin America and Caribbean. Although the submissions can’t be considered as an accurate baseline, this first CFS attempt to document and monitor the implementation of VGGT

worldwide establishes a reference for future monitoring by providing information on what is being done, where and by whom and the main results obtained so far (ibid.).

After analysing the information submitted by member countries, CFS categorized the results in five main areas, namely: 1. awareness raising, 2. capacity development, 3. development of multi-stakeholder platforms, 4. reform of legal and policy frameworks and 5. VGGT operationalization.

In terms of awareness raising, CFS reported that the related activities have directly led to increased knowledge and understanding of tenure issues and land rights of almost 100.000 individuals and over 5.000 households. The capacity building activities, in other words training measures through workshops, e-learning and other modalities have reached around 300.000 individuals and 100.000 households. In addition, a total of 26 multi-stakeholder platforms have been established, reaching more than 1.000 stakeholders who benefitted from facilitated continuous information exchange and enabling environments for sharing information on how to implement the VGGT in their respective contexts. The efforts aimed at reforming legal and policy frameworks led to the production of numerous position papers, law reviews, draft bills, tenure policies and various activities related to tenure governance. Finally, the VGGT operationalization led to the implementation of activities related to conflict resolution, strengthening access to land, registration of land parcels and attainment of legal certification, especially for vulnerable groups, with direct impact on over 1 million individuals (Committee on World Food Security, 2016).

Much as this first experience has set the basis for fruitful intensification of monitoring activities, there is still a pressing need for the establishment of an aggregated monitoring system, which allows for member states to assess their performance and share experiences in a systematic manner.

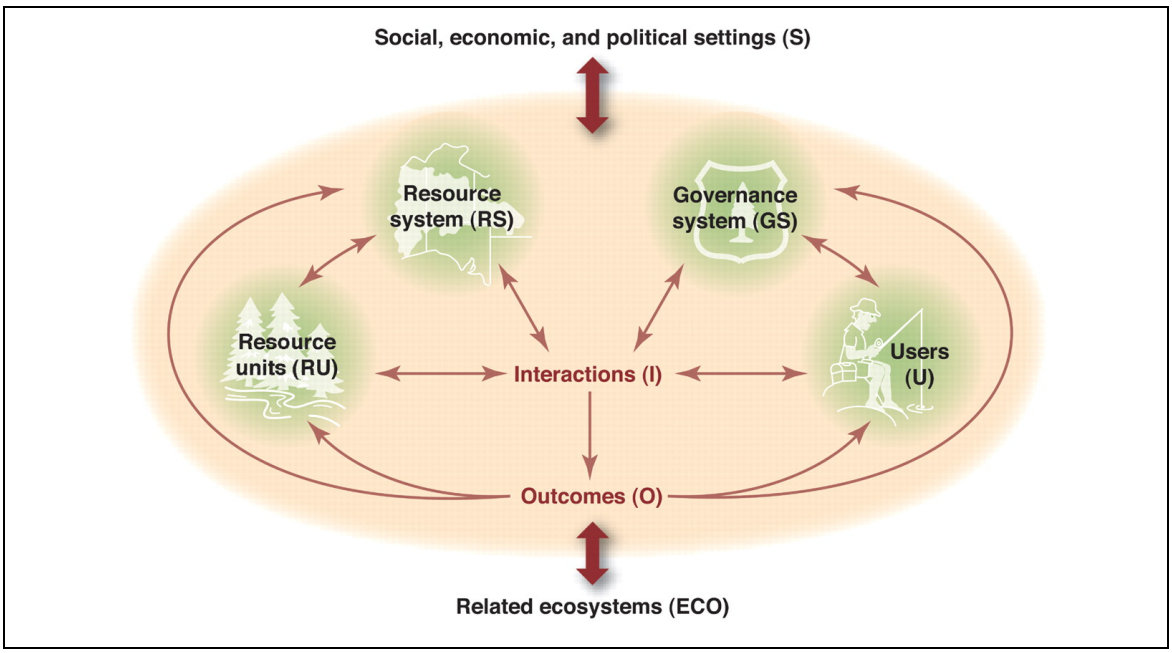
As argued by Kirk (2018), “land governance is a holistic concept asking for multi- or interdisciplinary approaches and broad expertise from a wide range of professions, including law, social-anthropology, political science as well as natural sciences (biology, botany, zoology, soil science, etc.)”.

As one form of governance, land governance is also addressed and dealt with in complex social ecological frameworks. In the publication “A General Framework for Analysing Sustainability of Socio-Ecological Systems”, Ostrom (2009) argues that “understanding of the processes that lead to improvements in or deterioration of natural resources is limited, because scientific disciplines use different concepts and languages to describe and explain complex social-ecological systems (SESs)”.

Ostrom argues also that until recently, accepted theory had assumed that governments shall impose solutions leading to sustainable use of resources since resources users are normally not able to self-organize to protect and maintain their resources. However, recent experiences show that some government policies may even accelerate resource deterioration, while some resource users have in fact endeavoured to achieve sustainability (Ostrom, 2009).

In this analysis, Ostrom presents a general framework for identifying subsystem variables that affect the likelihood of self-organization in attempts to attain sustainability in socio-ecological systems (SES). The following figure provides an overview of the framework and shows that SES are composed of first-level sub-systems, within which, relationships and interactions are established depending on potentially relevant second-level and deeper-level variables. The identification and analysis of these relationships and variables at different levels is a core challenge in diagnosing the reasons why some SESs may be sustainable while others collapse (Berkes & Folke, 1998; Janssen, 2002; and Norberg & Cumming, 2008; cited by Ostrom, 2009).

Figure 2-4. The core subsystems in a framework for analyzing social-ecological systems



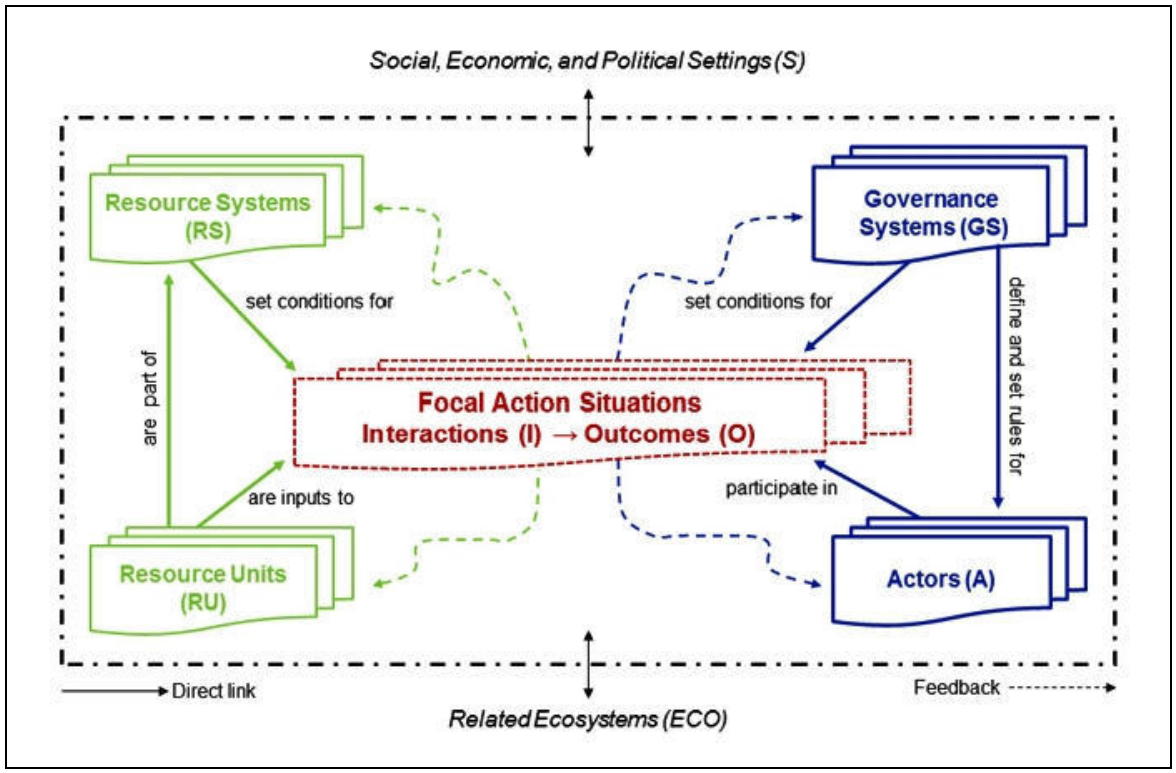
Source: (Ostrom, 2009, p. 420).

Some few examples of second-level variables are: clarity of system boundaries, productivity of system, growth or replacement rate, spatial and temporal distribution, property-rights systems, monitoring and sanctioning processes, number of users, and technology used, among many others (Ostrom, 2009). Altogether, these variables lead to the understanding that SES are indeed very complex in nature,

which is why simple implementation of blueprint policies doesn't work. The complexity is only taken into consideration in the systems are analyzed as a whole, and not through simplification.

McGinnis and Ostrom (2014), presented a modified version of the framework, which, among other changes, relabeled the interactions and outcomes to also include the broader term "action situations", a concept which is prominently presented by the Institutional Analysis and Development Framework (IAD), "[…] in which actors in positions make choices among available options in light of information about the likely actions of other participants and the benefits and costs of potential outcomes" (McGinnis & Ostrom, 2014, p. 4). Furthermore, the broader term "actors" replaced the concept of "users" to signify that not only the direct resource users shall be taken into consideration in the analysis, but also other stakeholders who are not direct users or consumers of a particular resource.

Figure 2-5. Revised social-ecological system (SES) framework



Source: (McGinnis & Ostrom, 2014, p. 4)

The framework is surely a major contribution to research activities aiming at comprehending land governance and how to strengthen it under specific circumstances. While presenting a structured yet flexible analysis instrument, it provides researchers, and also policy makers, with a powerful tool for understanding the complex systems within the land sector.

2.2 Land tenure security and access to land

The trend towards securing land rights for all has gained momentum in the last years, to a large extent due to the efforts undertaken by bi- and multilateral donors devoted to mainstreaming the VGGT and other instruments such as the "Principles for Responsible Investment in Agriculture and Food Systems" (RAI Principles) which were endorsed by the Committee on World Food Security on 2014 (Committee on World Food Security, 2014). The RAI Principles have the objective of promoting responsible investment in agriculture and food systems with the goal of supporting realization of the right to adequate food in the context of national food security (ibid.). The principles build on the core messages stated by the VGGT and address the core elements that make land investments more responsible.

In addition, the Sustainable Development Goals have incorporated a much stronger emphasis on land rights than their predecessor the Millennium Development Goals (MDGs). In September 2015, the General Assembly of the United Nations adopted the resolution "Transforming our World: the 2030 Agenda for Sustainable Development", the so-called post-2015 development agenda (United Nations General Assembly, 2015). The following goals and respective targets and indicators make direct reference to land rights:

Table 2-4. SDG Goals and Indicators related to land and land rights

Goals	**Targets**	**Indicators**
1. End poverty in all its forms everywhere	1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, […]basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.	1.4.1 Proportion of population living in households with access to basic services 1.4.2 Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, help maintain ecosystems, strengthen capacity for adaptation to climate change, extreme weather, etc. and that progressively improve land and soil quality	2.4.1 Proportion of agricultural area under productive and sustainable agriculture

5. Achieve gender equality and empower all women and girls	5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws	5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure 5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control
11. Make cities and human settlements inclusive, safe, resilient and sustainable	11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums. 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities 11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing 11.3.1 Ratio of land consumption rate to population growth rate 11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically 11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities 11.a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city.

(Inter-Agency and Expert Group on SDG Indicators, 2016)

It is not only important that land rights have earned a prominent position in the post-2015 development agenda, but also the fact that the achievements are to be monitored in a gender and tenure-type disaggregated manner. This is a major step forward, which was substantially influenced by the joint efforts of the Global Donor Working Group on Land under the lead of UN Habitat and the World Bank.

Within the frame of the post-2015 development agenda, The Global Land Indicators Initiative (GLII) was established in 2012 as a collaborative and inclusive process for the development of Global Land Indicators, spearheaded by the Millennium Challenge Corporation (MCC), UN-Habitat and the World Bank (WB), with intensive facilitation by the Global Land Tool Network (GLTN). The initiative has since then grown to include over 30 institutions from around the world ranging from UN Agencies, Inter-governmental Organizations, International Nongovernmental Organizations, Farmer Organizations and the Academia (GLTN, 2017). With the

aim to harmonize monitoring efforts around land tenure and governance, GLII seeks to derive comparable and harmonized land indicators that are in line with the VGGTs and the indicators defined for assessing and monitoring the achievement of the SDGs. To achieve this, the initiative is exploring the range of mechanisms and data collection methods and intends to foster partnership, inclusiveness, consultation, evidence-based indicators, people-centred approach and sustainability (ibid.).

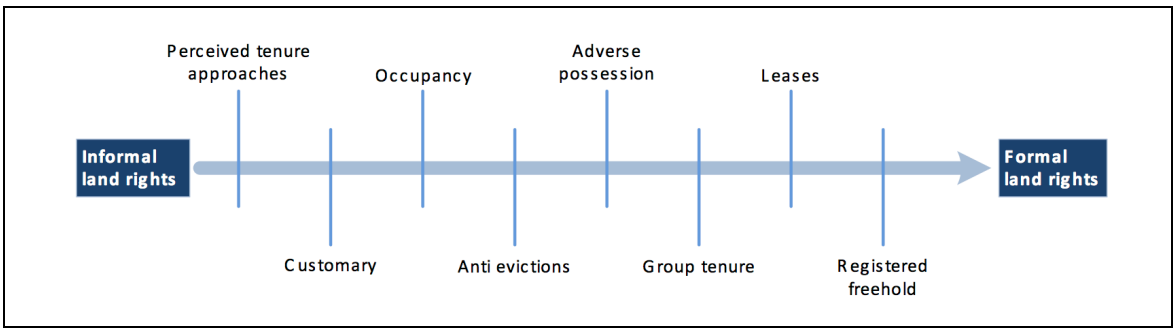
Securing land rights for all has been part of the agenda in many countries around the world for a very long time. Feder and Nishio (1999, p. 25) argued almost two decades ago, that there was convincing evidence from different countries in Asia, Latin America and Africa, where land registration led to better access to formal financial instruments (credits), higher land values, higher investments in land, and higher outputs of productive activities. With empirical evidence, the authors demonstrated the differences between titled and untitled properties regarding the above-mentioned aspects (Feder & Nishio, 1999; Dale & McLaughlin, 1999) and thus highlighted the benefits of land registration and titling.

It is widely accepted that privatization can have positive effects on national development provided that comprehensive reforms of legal and institutional frameworks are carried out to ensure that benefits will be perceived by all members of a society and not only by powerful and influential groups.

For example, if because of privatization too much decision-making power is vested in the market, serious distortions may occur, for instance, unequal distribution of income, social segregation and territorial inequalities, particularly regarding unequal development of rural and urban areas. A good land management system should contribute to the prevention of these harmful problems.

As proposed by UN Habitat Global Land Tool Network GLTN (2008, p. 8) the range of possible forms of tenure can be considered as a continuum instead of a set of independent types with special focus on private property (see Figure 2-6). In fact, in a society, several types of tenure systems may operate and plots may change in status if, for example, informal settlers are granted titles or leases. This has a major impact on projects aiming at the development of land management systems since overlooking the continuum will only result in regulations being inappropriate and not accepted by the stakeholders. This situation is unfortunately found in many countries where land rights range from informal and insecure rights to formally registered private ownership of land. The consequences are very often disastrous and could easily lead to civil unrest.

Figure 2-6. Continuum/range of land rights



(GLTN, 2008, p. 8)

Loehr (2012) is particularly critical about formalization processes aiming at capitalization of the potential benefits that can be obtained from land, and argues that capitalized use rights are neither an efficient arrangement nor provide tenure security, especially in developing countries, which leads to the questions as to how to provide tenure systems with legitimacy rather than only a means for individualization.

In general terms, land registration systems can be classified in three main types in accordance with their different origins, namely, French/Latin/U.S. style, German style and the Torrens/English style. Numerous countries have systems that combine characteristics of more than one of these basic ones (see Table 2-5).

Tenure systems vary considerably in terms of their advantages and limitations. The main criteria for comparison are the level of security they offer and the costs (human as well as financial and political) involved in their implementation. The following table shows an overview of the main tenure systems and their characteristics with special focus on their advantages and limitations.

Palmer et al. (2009; adapted from GLTN, 2008) provided an overview of the main tenure systems and their characteristics with special focus on their advantages and limitations. Regarding freehold, which provides ownership in perpetuity, they argue that it provides high security, freedom to use, dispose, inherit, use as collateral for loan, maximizes commercial value and enables the holder to capture value increases. On the other hand, some of the limitations of this system include the access costs and the high technical standards that are required for its administration.

Table 2-5. General relationships between land registries and cadastres

Style of System	Land Registration	Cadastre
French/Latin/ U.S. style	Deeds system Registration of the transaction Titles are not guaranteed	Land taxation purposes

	Notaries, registrars, lawyers, and insurance companies (U.S.) hold central positions Ministry of justice Interest in the deed is described in a description of metes and bounds and sometimes a sketch, which is not necessarily the same as in the cadastre	Spatial reference or map is used for taxation purposes only. It does not necessarily involve surveyors. Cadastral registration is (normally) a follow-up process after land registration (if at all) Ministry of finance or a tax authority
German style	Title system Land book maintained at local district courts Titles based on the cadastral identification Registered titles guaranteed by the state Neither boundaries nor areas guaranteed	Land and property identification Fixed boundaries determined by cadastral surveys carried out by licensed surveyors or government officers Cadastral registration is prior to land registration Ministry of environment or similar
Torrens/English style	Title system Land records maintained at the land registration office Registered titles usually guaranteed as to ownership Neither boundaries nor areas guaranteed	Property identification is an annex to the title Fixed boundaries determined by cadastral surveys carried out by licensed surveyors (Torrens) English system uses al boundaries identified in large-scale topographic maps Cadastral registration integrated in the land registration process

(Williamson et al., 2010)

Regarding registered leasehold, the same authors mention that this system is normally as secure as freehold, however, within a certain period of time, which in some cases could go up to 999 years. The leaseholder can sell the lease, and the remaining years on the lease will be transferred to the new leaseholder. Some of the limitations include the legal framework that is required and the costs of access, which are generally high (ibid.).

Public and private rental systems have good security, however, a legally enforceable contract is more important for private rental. Mobility depends on supply, which is often better in private rental systems. At the same time, public rental can be limited in supply and poorly located. Private rental may be open to abuse and depends on the lessor having freehold ownership (ibid.).

In the case of cooperatives and condominiums, ownership is vested in cooperative or corporate bodies, of which the residents are co-owners. The advantages of these systems are that they normally enjoy a good level of security, foster group cohesion and may lead advantages in for example group repayment of housing loans. On the other side, some of the restrictions that apply in such systems may reduce the

incentive to invest, and the corporate bodies may suffer from weak management (ibid.).

In customary or traditional systems, ownership is normally vested in the family, community, group or tribe, and land is normally managed by leaders on behalf of the community. Some of the advantages include wide acceptance and practice in certain parts of the world, simplicity of administration and preservation of social cohesion. Limitations include the pressure from rising land values and commercialization of land. In addition, accountability of traditional authorities may be weak (ibid.)

Intermediate tenure systems refer to pragmatic arrangements, often of short term nature, for example certificates or permits. They normally provide reasonable security, while protecting long term public interest and options for change of land use. On the other hand, the government becomes liable for compensation in event of relocation, which may inhibit redevelopment. Furthermore, this systems may often be perceived as insecure because of their short-term nature (ibid.)

Finally, non-formal tenure systems, which may include squatting, unauthorized sub-divisions, unofficial rental, among others, are often a response to failure in public land allocation and may operate with some elements from formal systems, for example contracts. In these systems there is normally a high risk of eviction, exposure to corrupt practices, hazardous locations and inadequate shelter conditions (ibid.)

Based on these advantages and disadvantages, and through an explicit recognition from the side of the statutory and customary authorities of the continuum of tenure types, sustainable systems can be built up as a basis for facilitating poverty reduction, economic growth and environmental sustainability.

With the aim of fostering the establishment and expansion of cost-effective and inclusive land administration systems for all, especially for vulnerable groups, the Global Land Tool Network (GLTN), the International Federation of Surveyors (FIG), the World Bank and Dutch Kadaster International have led the development of the so-called Fit-for-Purpose approach.

The approach is focused mainly on how to attain security of tenure for all in a manner that considers the diverse local realities at country and sub-country levels. The approach advocates for high flexibility in terms of the products to be developed and the ways to implement these (Enemark et al., 2016). The key principles are structured in three categories, namely the spatial, legal and institutional frameworks.

The key principles regarding the spatial framework recommend using visible (physical) boundaries rather than fixed boundaries and employing aerial/satellite imagery rather than field surveys. In this context, the principles state that accuracy relates to the purpose rather than technical standards, and that opportunities for updating and for upgrading and ongoing improvement should be pursued (Enemark et al., 2016).

Regarding legal aspects, the approach advocates for a flexible framework designed along administrative rather than judicial lines and a continuum of tenure rather than just individual ownership. Furthermore, it calls for flexible recordation rather than only one register and ensuring gender equity for land and property rights (ibid.).

Regarding the institutional framework, the Fit-for-Purpose concept supports good land governance rather than bureaucratic barriers, integrated institutional framework rather than sectorial silos, flexible ICT approach rather than high-end technology solutions and transparent land information with easy and affordable access for all (ibid.).

Strictly speaking, all these principles are not completely new among land experts, nevertheless the consistent mainstreaming of this approach has in the last years clearly influenced how new land-related projects are designed and implemented, especially in the context of international development cooperation.

2.3 Spatial and land use planning

Spatial and land use planning as part of land management have a direct impact on the achievement of the development goals of a country. Larsson (1997, pp. 42-46) referred to some of the purposes of planning and, although the list may be incomplete and depend heavily on the local context of every country, he provided an overview which gives partial answer to the question as to why should the public-sector lead planning of land use and development.

Regarding the purpose of planning to safeguard public goods, Larsson (1997) argued that provision of urban as well as rural infrastructure such as roads, water and drainage, but also sanitary conditions, good environment and protection of neighbours, among many others, require public planning. Private planning will tend also to realize private goals and objectives. Discrepancies may be reduced for instance by determining minimum requirements concerning buildings, sanitary solutions, recreation areas, degrees of exploitation, technical and socio-economic standards, etc.

Planning is also used as coordination, since it is strongly needed in land-related development and therefore, inter-sectorial coordination must be guaranteed.

Balancing the various interests and finding fair compromises is not an easy task, nevertheless, it is the basis for a peaceful society, for which coordination is crucial (ibid).

As a means for balancing private and public interests, planning can bring along rationality to the discussion and solve land-related conflicts. For example, through planning the state can allocate land for different purposes based on what is more appropriate in accordance with certain legitimate goals, without giving too much attention to individual private interests (ibid.).

Particularly in societies where there is a risk that market forces and economic considerations will tend to treat land uses unfairly, particularly those with low profitability, planning can be used to protect the weaker interests. For example, without public intervention housing for low-income people may be disregarded as compared with housing for middle and high-income classes. Further examples may be allocation of sufficient land for recreation and nature protection measures. Public plans are thus a means to reach fair solution by checking and adapting priorities (ibid.).

All over the world, there are often competing interests on the use of land, which can generate conflicts among different parties. These conflicts may easily escalate if they are not dealt with at a given time. Planning can be used also in conflict resolution and negotiation, particularly through participatory approaches which lead to finding compromises and agreements among the different stakeholders (ibid.).

Planning can be also a basis for on-going management and development decisions. As a means to facilitate day-to-day decision making concerning development matters, planning can lay the ground for proper management of development projects in rural as well as urban areas (ibid.)

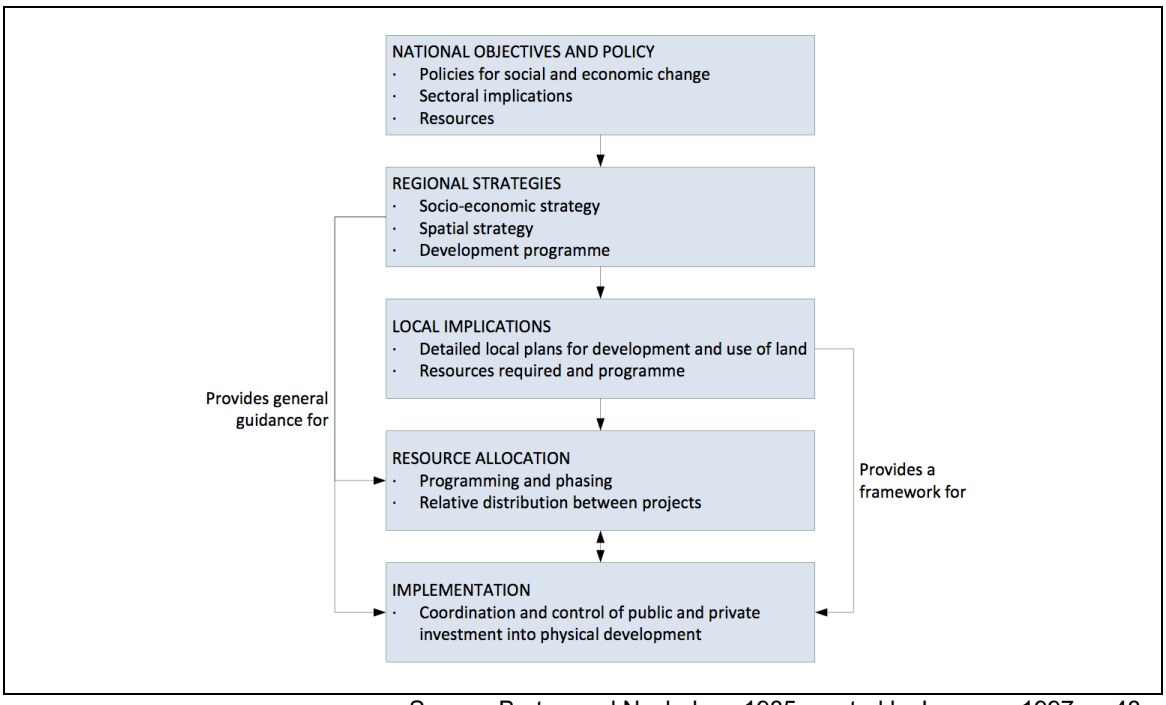
The development of land is often blocked by temporary obstacles, such as speculation or the owner's unwillingness to sell or develop the land. In absence of a perfect market, planning can be a means for creation of new opportunities and can provide an enabling environment to sort out these obstacles hindering development (ibid).

Since the planning process is a source of knowledge about territorial situations, conflicts and possible solutions to these, planning can be a basis for learning and communication and can pave the way to finding consensus among different stakeholders if participation is guaranteed (ibid.).

Finally, Larsson (1997) argued that planning can allow for adapting development to the various interests and goals through identification of solutions which at the same time observe appropriate standards (ibid.).

Ideally, planning should be a formal means for the achievement of specific development goals, particularly those conducing to fighting poverty, economic growth and sustainable use of natural resources. As shown in Figure 2-7, an idealized framework for strategic planning and implementation is composed by several interrelated components that reflect the hierarchical structures of the country and the political processes that these imply. At the highest hierarchical level, the government should set out the national objectives and policy requirements, with due consideration of sectorial implications and the resources needed, which at the regional level is translated into concrete and contextualized strategies and development programmes. Based on these strategies, the local authorities should be enabled to develop and implement detailed local plans and allocate resources for development and use of land and manage their implementation through coordination and control of public and private investment into physical development. The structure described above is in fact the traditional arrangement behind spatial planning in theory and practice.

Figure 2-7. An idealized framework for strategic planning and implementation



Source: Bruton and Nocholson 1985, quoted by Larsson, 1997, p. 48.

Spatial planning has indeed a major impact on how the state organizes and develops its territory. According to the EU compendium of spatial planning systems and policies (European Commission, 1997):

> "Spatial planning refers to the methods used largely by the public sector to influence the future distribution of activities in space. It is undertaken with the aims of creating a more rational territorial organisation of land uses and the linkages between them, to balance demands for development with the need to protect the environment, and to achieve social and economic objectives. Spatial planning embraces measures to co-ordinate the spatial impacts of their sectorial policies, to achieve a more even distribution of economic development between regions than would otherwise be created by market forces, and to regulate the conversion of land and property uses".

In other words, spatial planning aims at sustainable development of the territory (rural and urban) by use of methods for guiding and controlling development processes which would otherwise follow dynamics determined exclusively by the markets or by influential components of the society. Therefore, The Economic Commission for Europe (UNECE, 2008) refers to the crucial relevance of spatial planning in delivering economic, social and environmental benefits by creating stable and predictable conditions for investment and development, ensuring a fair distribution of benefits arising from it and by the promotion of a context-intelligent use of land and other natural resources. This has a strong connection with the primary political goal of improving the quality of life of the society.

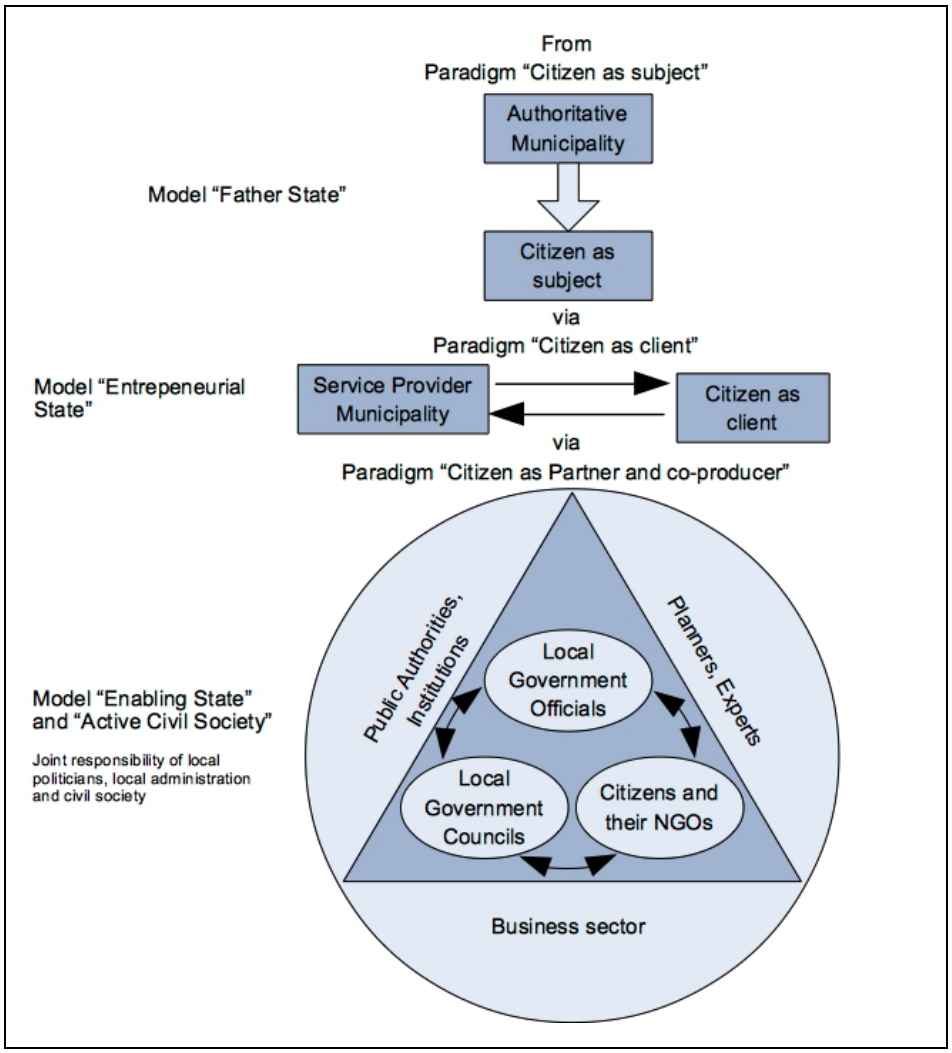
Under this conceptual frame, the responsibility for the different phases should be located at the lowest appropriate level. Throughout history, the way in which the national governments interact with regional, local governments and the society, with special reference to delegation of responsibilities, has changed dramatically in many countries.

From a purely top-down approach where the state was the "father" and saw the citizens as subjects through more "entrepreneurial" approach were the citizens were clients and the services were provided in accordance with their requirements, to an "enabling state" for which the citizens are partners in the joint venture of fostering equitable development of rural and urban areas (Magel, 2005).

As shown in Figure 2-8, in the scenario of an "enabling state" the local government officials collaborate with the local government council and the civil society. This arrangement is crucial under the principle of subsidiarity and thus for an efficient

functioning of the process of weighing different interests (e.g. public authorities, sectorial goals and private investment) and solving land use conflicts accordingly.

Figure 2-8. The new paradigm of active civil society



(Magel, 2017)

Although this conceptual frame depicts an "ideal" arrangement which is certainly not completely applicable to all countries, it allows for a conceptualization of the targets to be addressed to achieve specific political objectives such as poverty reduction, economic growth and environmental protection in both rural and urban areas, particularly regarding rules, processes and structures concerning land. Furthermore, it should provide the basis for the establishment of rural-urban inter-linkages which contribute to the achievement of these objectives.

Spatial planning should thus be a field in constant adaptation to the local needs and aims at a time and space. From this perspective, it should continuously segregate, modify, update, or generate new aspects to timely and accurately provide the services or products it is supposed to (Mayer 1999, p. 6). Currently, internationally

speaking, “spatial planning finds itself between two conflicting positions, one claiming more governmental power and the other favouring deregulation” (ibid.).

In this regard, we can mention the German system being a mature one, which is based on a balance between the two positions mentioned above. The following figure shows the German spatial planning system as described by Turowsky (2001).

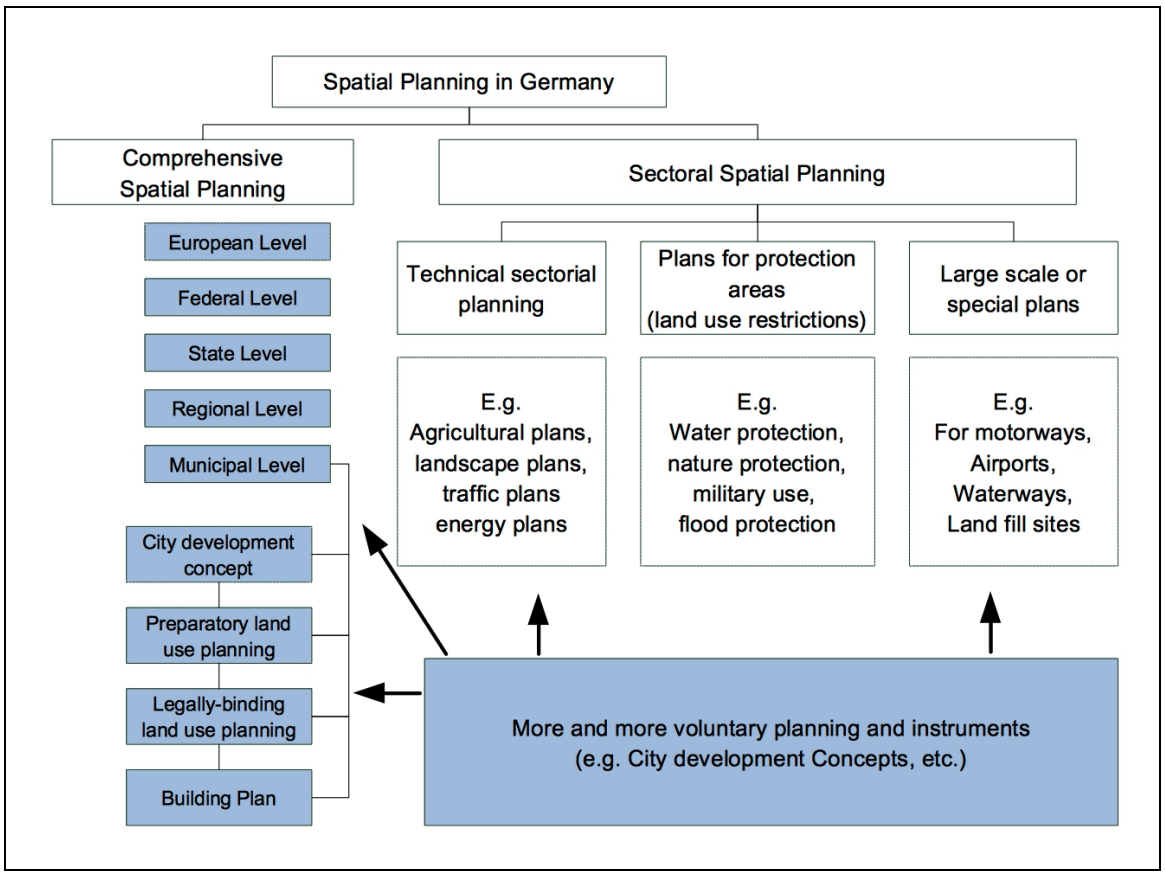
Figure 2-9. The German spatial planning system

<table>
<tr><th>State structure</th><th>Tiers of planning</th><th>Legal foundations</th><th colspan="2">Planning instruments</th><th>Material content</th></tr>
<tr><td>Federation</td><td>Spatial Planning at Federal Level</td><td>Spatial Planning Act</td><td colspan="2">------
Perspectives for spatial development</td><td>→ Principles of comprehensive spatial planning</td></tr>
<tr><td rowspan="2">Länder</td><td>Spatial planning at Land level</td><td rowspan="2">Spatial Planning Act and Land planning legislation</td><td rowspan="2">Comprehensive supra-regional plans</td><td>→ Spatial structure plan
→ Spatial and sectoral sub-plans</td><td rowspan="2">→ Aims of comprehensive spatial planning</td></tr>
<tr><td>Regional planning</td><td>→ Regional plan
→ Regional Master plan</td></tr>
<tr><td rowspan="2">Municipalities</td><td rowspan="2">Urban land-use planning</td><td rowspan="2">Federal Building Code</td><td rowspan="2">Urban land-use plans</td><td>→ Preparatory land-use plan</td><td>Representation of land-use type</td></tr>
<tr><td>→ Local development plan</td><td>Designations of urban development</td></tr>
</table>

(Turowsky, 2001)

It is worth noting that the German approach is a systematic arrangement, which considers the characteristics of the territory and enables the delegation of responsibilities at the lowest appropriate hierarchical level. This aspect is also clearly depicted in the following figure that shows some examples of the specific planning tasks that are carried out at the different levels also described above.

Figure 2-10. Comprehensive spatial planning – the case of Germany



Source: (Magel, 2013)

Mayer (1999, p. 7) commented that "Spatial planning is conceived of as decisions influencing others' operational decisions about land-uses; thus, it is inevitably associated with hierarchical forms of organisation".

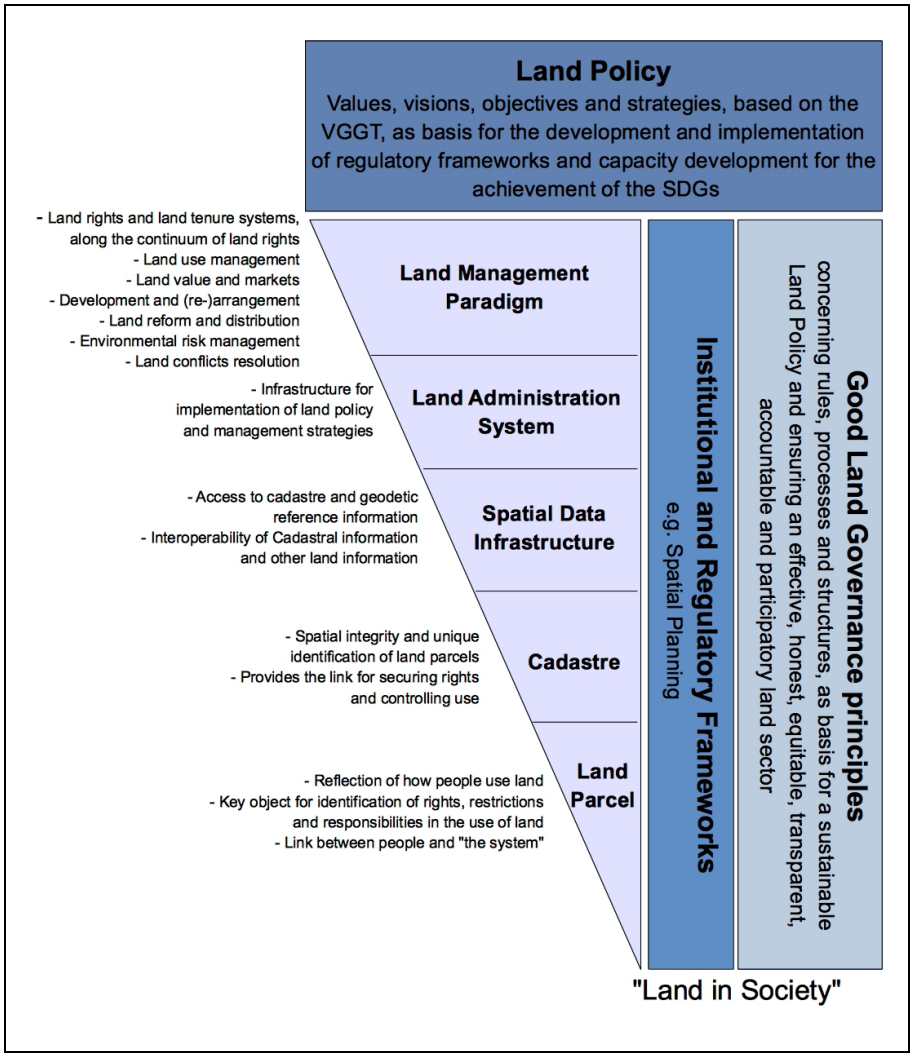
As opposed to the German or European situation, in developing countries the concept of spatial planning is unfortunately often misunderstood. In numerous cases, it is taken as a synonym of land use planning, in many others as a process for regionalization and administrative division of the territory. This is one of the reasons why a functioning spatial planning system is not to be found in most of the countries in the developing world. This lack of a proper system implies weak institutions and legal framework for the prevention and resolution of land use related conflicts.

2.4 Conceptual frame

The land sector in a country is a complex system composed by numerous technical and legal components that have direct impact on economic development and environmental as well as social dimensions. Land policy, as the overall guideline for the formulation of regulatory frameworks and tools with respect to land and

stating the values and objectives to be followed by the land sector, based on the Voluntary Guidelines on the Responsible Governance of Tenure of Land Fisheries and Forests in the Context of National Food Security, set the basis for the construction of a spatially enabled society and, of course, for the establishment of a balanced rural and urban development, and ultimately, for the achievement of the Sustainable Development Goals.

Figure 2-11. The conceptual framework



Source: Magel, Klaus and Espinoza 2009, based on Enemark 2006, modified.

As shown in Figure 2-11, under these frame conditions, there is a hierarchical arrangement of different technical and policy levels. In this regard, Enemark (2009) argues that this hierarchy shows the complexity of organizing policies, institutions, processes, and information for dealing with land in society. This conceptual understanding provides the overall guidance for building a land administration system in a society, independent of the level of development. The hierarchy should also provide guidance for adjusting or reengineering an existing land administration system (ibid.).

Having a closer look at these hierarchical levels, first there should be a paradigm for the management of land, which originates directly from the values and objectives set by the land policy framework and which refers to land tenure arrangements, land use practices, land value and market conditions and development targets (Dale & McLaughlin, 1999).

Land management is a dynamic process that requires a sound land administration system that provides the technical and legal infrastructure for the implementation of the land policy and management strategies. As basis for this system, there is a need for a functional spatial data infrastructure that facilitates interoperability and access to land information and lays the necessary structure for the cadastre and for the information concerning ownership and use of every land parcel thus providing the link of the system with the society.

The backbone of this hierarchical structure should be composed by spatial planning and institutional frameworks originating from good land governance principles for the organization, implementation and proper operation of the land sector. A failure in this arrangement may lead to a malfunctioning system with consequences which can be quite dramatic, for instance, unbalanced development of rural and urban areas and subsequent increasing poverty and rural-urban migration (Magel et al., 2010).

Additionally, this conceptual arrangement depicts main aspects to be addressed by capacity building measures with a look at the establishment of an effective land sector that contributes to the achievement of the Sustainable Development Goals. There is globally a high demand for professionals with strong competences on all these single components but also with a profound understanding of the inter-linkages and complexities of the real world. In other words, there is a need for land experts with specific fields of expertise but at the same time with deep comprehension of the system as a whole (Magel et al., 2009). The establishment of healthy rural-urban interrelationships is hardly possible without the appropriate capacity of the decision makers and the civil society in as main identifiers of the real needs to be addressed.

Naturally, this should have major impacts in the need for policy formulation and/or re-formulation as vicious circles of lack of capacity and lack of appropriate instruments for policy implementation is likely to occur if an incomplete or narrow-sighted account of these aspects is considered when formulating or revising legal and institutional frameworks (Magel et al., 2010; Magel et al., 2009; Magel, 2013; Magel, 2013).

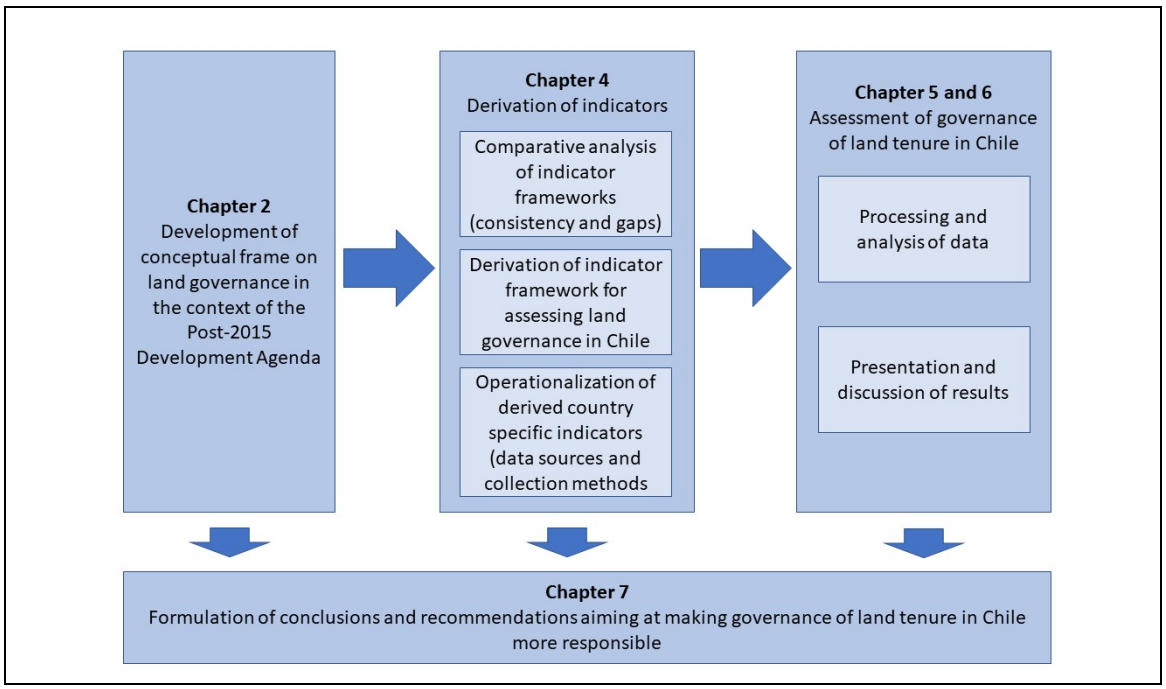
Although this conceptual frame depicts an “ideal” construction, it allows for a conceptualization of the targets to be addressed to achieve specific political objectives such as poverty reduction, economic growth and environmental protection in both rural and urban areas, particularly with respect to the rules, processes and structures concerning land. Furthermore, it should provide the basis for the establishment of rural-urban inter-linkages, which contribute to the achievement of these objectives.

3 Methodology

3.1 Research design

The research adopted a qualitative approach and attempts to assess the status of land governance in Chile by means of a set of indicators derived from relevant frameworks and internationally accepted guidelines including the Land Governance Assessment Framework of the World Bank (Deininger et al., 2012), the Global Land Indicators (GLII) of GLTN (GLTN, 2017) and the VGGT of CFS (Committee on World Food Security, 2012), in addition to the land-related indicators proposed by the Sustainable Development Goals (United Nations General Assembly, 2015).

Figure 3-1. Research design



Source: the author

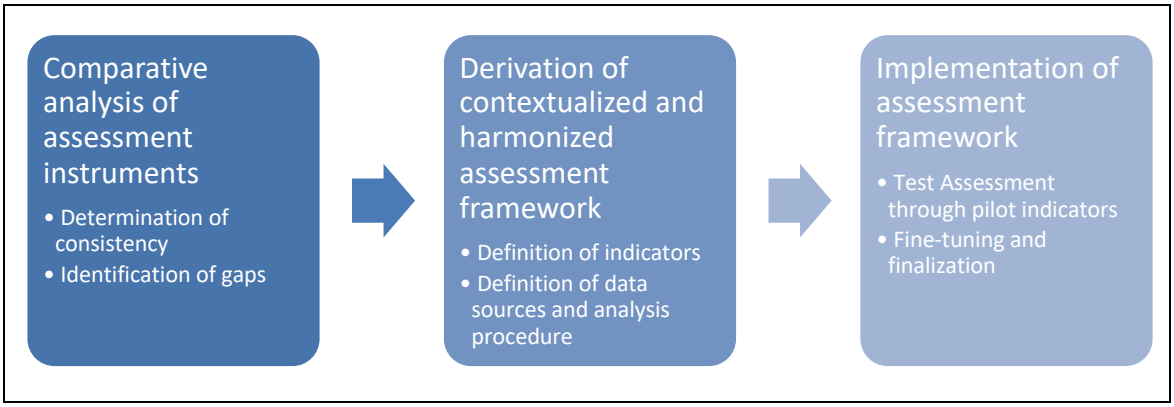
As indicated in Figure 3-1, the research is structured in six parts. Chapter 2 presented a conceptual frame on land governance in the context of the post-2015 development agenda. This chapter provided a conceptual analysis of key literature as a basis for the development and implementation of the research method.

The research part begins in Chapter 4 with a comparative analysis of the above-mentioned frameworks and guidelines and the derivation of a contextualized and harmonized framework for assessing land governance in Chile. Chapter 5 and 6 then present the results of the assessment performed through the harmonized and contextualized framework and the in-depth discussion of findings, leading to Chapter 7, which concentrates on the formulation of recommendations, particularly

regarding the needs for policy formulation and reform and the required improvements in the land sector in Chile, particularly concerning capacity development and institutional change to make land governance more responsible.

To develop the harmonized and contextualized assessment framework, a comparative analysis will be carried out to determine, on the one hand, the comprehensiveness of each indicator framework or guideline, and, on the other, to identify the gaps which are relevant and specific for the case of Chile (see Figure 3-2).

Figure 3-2. Steps for derivation of contextualized and harmonized assessment framework



Source: the author

The second step will be to select the indicators to be used for assessing land governance in Chile and, wherever necessary, to adjust these to the local context. The final product of this step will be a set of indicators with specific procedures for data collection and analysis. To be able to perform a strong analysis and formulate meaningful recommendations, the framework will be composed of a balanced combination of quantitative as well as qualitative assessment instruments.

The third step will concentrate on piloting the indicators and fine-tuning them in accordance with the specific situations encountered on the ground. This step will conclude with the assembly of a final version of the harmonized and contextualized assessment framework.

3.2 Sources of information and data collection instruments

The assessment of status of land governance in Chile will be based on several sources of information, which will include but are not limited to those indicated in Annex 9.1.

Through semi-structured interviews, the experiences of experts in different land-related subject areas will be collected to provide an overview of land governance in

Chile, particularly regarding its main strengths and weaknesses. Awareness on VGGT and their implementation will also be a subject of attention.

Semi-structured interviews, as well as review of statistics and performance reports, will be used to evaluate performance of the judiciary branch in the resolution of land-related disputes. Issues such as clarity in roles and responsibilities, transparency and accountability and protection of vulnerable groups will be subject of particular attention.

Experiences of civil servants from land-related ministries will also be gathered, particularly regarding land tenure and access to land. Institutional responsibilities, land management instruments and strategies and aspects of equality in terms of living conditions in rural and urban areas will be discussed and analysed. Special attention will be given to the work of regional and local governments in land-related processes, particularly regarding spatial and land use planning as well as land development. These will include rural as well as urban development processes, strategies, roles and responsibilities and financial and technical support programmes.

The land registry and the land information systems as well as the spatial data infrastructure will be assessed and analysed to evaluate their performance and appropriateness. Issues such as coverage, consistency and level of security provided will be subject of special attention. Formal and informal access to services as well as accountability matters will be analysed and discussed in detail.

The implementation of constitutional provisions and laws related to land tenure, dispute resolution, inheritance and transactions will be analysed and discussed, including aspects such as quality and accessibility of services. Existing legal instruments and the extent of their implementation will also be subject of analysis, including, but not limited to, aspects of taxation and land-related revenue.

Given the high relevance of the indigenous population, their history and their traditions related to land, a closer look will be given to their historical background and the current settings regarding indigenous land across the Chilean territory. In this context, special focus will be put on the legacy issues and conflicts regarding land and participation of the indigenous population in political processes.

The work and experiences of community groups, non-governmental organizations, research and education institutions as well as the press and media, will also be taken into consideration to assess all thematic areas stated above. Last but not least, experiences from the private sector will also be used to triangulate and enrich the discussion on the above state topics, particularly regarding land development aspects.

A detailed table containing the sources of information, kinds of information to be collected and the collection instruments is found in Annex 9.1. This table is not an exhaustive compilation of all the single aspects that will be assessed by means of the harmonized and contextualized assessment framework, but gives an overview of the key aspects that will be covered. In the process of deriving the harmonized and contextualized assessment instruments, all these aspects will be further broken down to a higher level of detail and with clear boundaries.

3.3 Presentation and discussion of results

Results will be presented in textual or graphical form, depending on the nature of the information. To the extent possible, the results of each indicator will be compiled and aggregated into sub-categories of land governance. This will allow for summarizing the results of the overall assessment in the form of a SWOT analysis, which will set the basis for the formulation of concrete recommendations for policy, institutional and technical reform.

4 Comparative Analysis of Land Governance Frameworks

4.1 The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGT)

The “Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security” (VGGT), endorsed by the Committee on World Food Security (CFS) in 2012, contain principles and internationally accepted standards for responsible practices in land governance. Meanwhile donor countries are implementing wide-ranging programs to support the implementation of the VGGT including components of awareness raising, capacity development (with country-based learning programs) and direct technical support at country level. Moreover, remarkable efforts are currently being devoted to developing and implementing national land policies and designing corresponding legislation to make land governance more responsible. This includes work to establish land management and administration systems and authorities capable of managing correctly and transparently, all aspects of land surveying and registration as well as purchasing and leasing or renting, land taxation and land dispute resolution, for all members of a given society in a non-discriminatory manner.

Nowadays the added value of the VGGT is widely accepted, which, despite being on a voluntary basis, represent a strong human-rights-centred guiding instrument that focuses on the implementation of the right to food and secure access to resources. The VGGT are a concrete reference frame and are considered extremely relevant and useful among experts and practitioners to support different actors in partner countries to improve land governance and access to land and other resources.

The VGGT allow government authorities, the private sector, civil society, citizens and other stakeholders to judge jointly whether their proposed actions and the actions of others constitute acceptable practices according to these principles and standards.

A compilation of these principles and standards set out by the guidelines that are relevant for evaluating land governance in Chile has been included in Annex 9.3. The list is arranged following the main chapters of the VGGT and present over two hundred assessment criteria.

4.2 The Land Governance Assessment Framework (LGAF)

The Land Governance Assessment Framework (LGAF), developed by the World Bank and its partners (FAO, IFAD, UN-Habitat, African Union, IFPRI) precedes the VGGT. Its development was inspired by the consultations leading to the voluntary guidelines. The framework has been developed as a diagnostic tool for evaluating performance of land governance at the national level. It thus provides governments with an objective assessment tool that can be used to identify areas where improvements are required as a result of, for example, "[…] rapid changes in land use associated with economic development (or the lack thereof), climate change, urbanization, growth of demand for food and industrial materials, and the need to feed a rapidly growing population…" (Deininger et al., 2012, p. 11).

The overall diagnostic is made through the assessment of 27 Land Governance Indicators (LGI hereafter) grouped into five main topics or thematic areas, namely (The World Bank, 2013)

1. Recognition and respect for existing rights (legal and Institutional framework)
2. Land use planning, management and taxation
3. Management of public land
4. Public provision of land information
5. Dispute resolution and conflict management

These five thematic areas, broken down into 120 so-called dimensions, should provide a comprehensive picture of the land sector. These dimensions may be seen as specific research questions which need to be answered in order to get the "big picture". Within the framework, the answers to these questions have already been pre-coded in order to facilitate and standardize the process.

A table presenting the land governance indicators and the respective dimensions that are relevant for evaluating land governance in Chile has been included in Annex 9.4.

4.3 The Global Land Indicators Initiative (GLII)

As mentioned in previous sections, the Global Land Indicators Initiative (GLII) seeks to derive comparable and harmonized land indicators that are in line with the VGGTs and the indicators defined for assessing and monitoring the achievement of the SDGs (GLTN, 2017).

The tool has been organized in four broad thematic areas, namely, Land tenure security, land conflicts and land disputes, land administration services and sustainable land use.

Regarding land tenure security, aspects such as level of documentation and legal recognition of land rights for women and men, perception of tenure security, plurality of tenure regimes and conditions of equality among men and women, as well as indigenous land rights, are taken into consideration (Quan & Kumar, 2017).

Regarding land conflicts and disputes, the GLII indicators assess aspects such as frequency of occurrence and availability and effectiveness of resolution mechanisms (ibid.).

Referring to land administration services, the indicators attempt to evaluate efficiency, transparency and availability of these services as well as coverage of land information and the level of importance of the taxes derived from land-based sources as a percentage of the total government revenue (ibid.).

Finally, regarding sustainable land use, the indicators aim to measure land use change and progress in sustainable land-use planning (ibid.).

A table showing the four thematic areas proposed by GLII and the respective indicators that are relevant for evaluating land governance in Chile has been included in Annex 9.5.

4.4 Integration of indicator frameworks

The three frameworks presented above are mutually reinforcing. While the VGGT focus on principles and overall guidance statements, the LGAF and Global Land Indicators are primarily evidence-based assessment instruments aiming at determining the current status of land governance and entry points, or main bottlenecks, on which the VGGT could build or provide further guidance (Hilhorst & Tonchovska, 2015)

The results of an analysis conducted by FAO on usefulness and completeness of existing land governance assessment tools in the context of the VGGT for utilization at country level show that the LGAF is compliant with the VGGT and that LGAF indicators cover most of the VGGT land-related principles and technical sections in a satisfactory manner (Hilhorst & Tonchovska, 2015). Accordingly, the following table shows a summary of the VGGT topics and the number of corresponding LGAF dimensions.

Table 4-1. Summary of VGGT Topics covered by LGAF

VGGT Topics	**# of Corresponding LGAF Dimensions**
Tenure Rights and Responsibilities	16
Policy, Legal and Organizational Frameworks	17
Delivery of Services	15
Safeguards	8
Public Land, Fisheries and Forests	12
Indigenous Peoples, Communities with Customary Tenure Systems	3
Informal Tenure	6
Markets	6
Investments	13
Redistributive Reforms	5
Expropriation and Compensation	5
Records of Tenure Rights	16
Valuation	2
Taxation	5
Regulated Spatial Planning	12
Resolution of Disputes Over Tenure Rights	4
Land Consolidation and Other Readjustment Approaches	2
Restitution	0
Transboundary Matters	0
Climate Change	1
Natural Disasters	1
Conflicts in Respect to Tenure of Land, Fisheries and Forests	19

(World Bank, 2017)

As it can be seen from the table there are topics that tend to be more represented than others, and in the case of land restitution and transboundary matters, there seems to be a gap in the LGAF instrument, as there is no dimension covering these subject areas. In a related study, Tonchovska and Egiashvili (2014) argue that the framework is however a solid basis for monitoring the implementation of the VGGT at country level. This is also the case for the Global Land Indicators, although in a less comprehensive manner.

Given the comprehensiveness of the VGGT, there is currently no assessment instrument covering all VGGT topics and the respective subcategories. The present study will therefore adopt the structure of the VGGT and will utilize the available indicators for all subcategories, including those contained in the guidelines themselves (see Annex 9.3), LGAF and GLII. The results will thus be structured as presented in the following table.

Table 4-2. Summary table for presentation of results

VGGT Sub-Category	**Indicator/s (VGGT, LGAF, GLII)**	**Comments**
Safeguards and resolution of disputes regarding land tenure	VGGT 1-10; LGI 1-6, 11-18, 21, 22, 24, 26 and 27; GLII 1-5 and 7; VGGT 173-180; LGI 24 and 25; GLII 6-8; and VGGT 200-214; LGI 24 and 25; GLII 6-8	
Management and administration of public land	VGGT 11-33; LGI 10-14 and 16	Forests indicators are included in LGAF in an optional module on forestry. Fisheries are not covered by LGAF. No specific reference in GLII
Indigenous peoples and land restitution	VGGT 34-50; partially covered by LGI 1 and 2; GLII 5 and 6-8; and VGGT 98-102	Optional modules on Large Scale Land Acquisition and Forestry contain additional relevant indicators Land restitution is covered neither by LGAF nor GLII
Informal land tenure	VGGT 51-59; LGI 9, 17; GLII 11, 13 and 15	
Records of land tenure rights	VGGT 130-148, LGI 1-3, 17-20; GLII 1, 5, 9, 10	
Land markets and land investments	VGGT 60-72; LGI 13; GLII 9, 10 And VGGT 73-89; LGI 13-16; GLII 14	Land investments covered in LGAF's optional module on large scale land acquisition
Land valuation and taxation	VGGT 149-155; LGI 22 And VGGT 156-162; LGI 22 and 23; GLII 12	Land valuation not covered by GLII
Land consolidation and other readjustment approaches	VGGT 90-97	Covered neither by LGAF nor GLII

Redistributive land reforms	VGGT 103-119	Covered neither by LGAF nor GLII
Expropriation and compensation	VGGT 120-129; LGI 11, 12 and 14	Not covered by GLII
Regulated spatial planning	VGGT 163-172; LGI 4-8; GLII 14, 15	
Climate change and natural disasters	VGGT 181-184; GLII 14 and VGGT 185-199	Climate change is partially covered by LGAF's optional module on forestry Natural disasters are covered neither by LGAF nor by GLII

Source: compiled by the author based on the VGGT, LGAF and GLII.

The results of the analysis described above will be presented in subsequent chapters, preceded by a description of the land tenure systems which exist in Chile and the historical evolution leading to its current conformation.

5 Overall Description of the Land Sector in Chile

5.1 Country background

5.1.1 Political and administrative system

Chile is a unitary republic with a presidential regime and a democratic multi-party system. The State is composed by three independent branches, namely Executive, headed by the President, the Judicial, with the Supreme Court as topmost authority, and the Legislative branch with its parliament members and the senate. The presidential period is four years without possibility of consecutive re-election.

There are three main levels of sub-national territorial units, namely, 15 regions, 52 provinces and 345 municipalities (*comunas*). “Yet, under the tight administrative, fiscal and regulatory framework of the central state, the main sub-national actors remain largely controlled by national guidelines” (OECD, 2009).

According to the Organization of Economic Cooperation and Development (OECD) (2009), of which Chile has been a member since May 2010, the quality of institutions and the stability of Chile’s regulatory framework are comparable to those of other OECD countries. As a result, Chile has been among the most successful countries in reducing poverty levels worldwide. In the year 1990 38.6% of the population lived under the national poverty line. Twenty years later, the proportion decreased to 15.1%. Furthermore, in the year 1990 13% of the population lived under conditions of extreme poverty; till 2010 this proportion had decreased to 3.7% (Government of Chile, 2010). It is also interesting to highlight that in the year 2009 the proportion of people living under the poverty line was higher in urban areas (15.5%) than in rural areas (12.9%), a situation which was opposite until the year 2003, which could be interpreted as a result of the rates of urbanization. Extreme poverty between 1990 and 2009, however, was persistently higher in rural areas (4.4% in 2009) than in urban areas (3.6% in 2009) (ibid.). From an international perspective, as indicated in the country profile provided in Annex 9.2, the percentage of population living under 1.90 USD a day is 0.9% (World Bank, 2015), which means a decrease of 7% since the year 1990 (ibid.).

Among the OECD members, Chile is the one with the highest level of income inequality with a Gini-Coefficient of 0.50, considerably over the OECD average of 0.31 (OECD, 2011). According to the same source, 38% of the Chilean population reports that it is hard or very hard to live with their current income, once again significantly over the OECD average of 24%.

From the total population, around 12,8% belong to an indigenous ethnic group (National Institute of Statistics, 2017), 88% live in urban areas across the country, around one third live in the capital city of Santiago and approx. 15% live in the next 4 biggest cities, namely, the Valparaiso, Concepción, La Serena and Antofagasta (ibid).

> "Although Chile's population is more concentrated than that of OECD countries, there has been a trend toward deconcentration during the past 20 years. With nearly half of the Chilean population living in the Metropolitan region of Santiago and almost 60% in Santiago and Bio-Bio, demographic concentration in Chile is almost twice the OECD average" (OECD, 2009, p. 59)

However, a slight move towards deconcentration of the population and a decline in the geographic index of concentration of 3 percentage points has been observed in the last two decades (ibid.)

According to Obreque (2005) if we take the German definition and apply it to the Chilean conditions, we would see that 40% of the population would be classified as rural. Nevertheless, according to Chilean regulations, rural population is defined as that which inhabits settlements of up to 1000 inhabitants. Population centres which have a close relationship with touristic or recreation activities and with more than 250 housing units is considered to be urban. According to these conditions, the rural population in Chile amounts to approximately 13% of the total.

> "Settlement in Chile is characterised by an urban-rural divide. The share of the urban population nationwide has been increasing and accounted for 86.6% of the total population in 2002. However, while regions such as Antofagasta, the Metropolitan Region or Tarapacá concentrate close to 95% of their inhabitants in urban areas, Maule, Araucanía, Los Lagos and O'Higgins have nearly 30% of their inhabitants in rural localities" (OECD, 2009, p. 59)

In December 2016 the congress approved a constitutional reform (Law 20.990 of 2016) that introduced considerable changes in the administrative structure of the regions and, consequently, the spatial planning procedures. In the new structure the deconcentrated (sectoral) government line shall be headed at the regional level by the so-called "Regional Delegates of the President" and at Provincial level by the "Provincial Delegates of the President", therefore replacing the regional Intendants and the Provincial Governor. Both delegates shall be appointed directly by the President. The decentralized regional government (GORE) on the other hand shall now be headed by the Regional Governors, who shall be democratically elected

and also replace the Regional Intendants, who used to be appointed by the President (Government of Chile, 2016). The related spatial planning instruments will be explained in detail in upcoming sections.

Table 5-1. Administrative and governance structure at sub-national level until 2016

Territorial level	Description of units, governance and main functions
Regions (15)	a) The government of the Region – national deconcentrated (sectoral) government line • Intendant ***(Intendente):*** The direct representative of the President of the Republic in each region. The intendant is appointed by the President of the Republic and leads the regional government in accordance with guidelines given directly by the president. b) The regional government (GORE) – territorially decentralised line • Intendant ***(intendente):*** Acts as the executive head of the regional government and presides the Regional Council. • Regional Council (CORE): Supervises the intendant's duties. A reform is under way to elect regional councillors directly through a democratic election. c) Other organs of the public administration in the region • Ministerial regional secretaries (SEREMIS): National ministries' regional representatives who coordinate the public services under their responsibility. The Regional Planning Secretariat (SERPLAC) is a key institution in the investment process.
Provinces (52)	• Governor (*Gobernador*): Appointed by the President, and is the territorial de-concentrated authority of the intendant in the territory of the province. • Provincial Economic Council: Headed by the governor, acts as an advisory institution to the provincial governor.
Municipalities (345)	• Mayor (*Alcalde*): Highest authority in a municipality; chair of the municipal council. • Municipal council: advises, regulates and supervises the mayor's performance. It is in charge of ensuring the effective participation of the local community. • Economic and social council: It is an entity of the municipality composed of representatives of civil organisations of the *comuna*, aimed at ensuring their participation.

(OECD, 2009, p. 47)

5.1.2 Characteristics of land use

The population of Chile is concentrated in a very small proportion of its territory. This is shown in Table 5-2 which indicates that only a 0.32% of the area is classified as urban or industrial (as indicated previously approx. 87% of the population lives in urban areas across the country).

Table 5-2. Distribution of land uses in Chile

Land use type	Area (ha)	Area (% of Total)
Urban and industrial	244.383,6	0,32%
Agriculture	3.434.408,1	4,55%
Grasslands and bush-lands	20.075.959,2	26,58%
Forest	16.477.120,6	21,81%
Wetlands	4.621.106,8	6,12%
Areas without vegetation	24.762.608,1	32,78%
Ice-lands	4.317.829,1	5,72%
Other	1.607.632,6	2,13%
Total	75.541.048,1	100,00%

(INFOR, 2010)

On the other hand, a large proportion of the country is covered by forest, most of which is under supervision by the national system of protected areas (19,2% of the continental territory). Furthermore, it is interesting to note that a very large proportion of the country is classified as “area without vegetation” which corresponds to zones such as the Atacama Desert in the north of the country.

5.2 Land tenure system in Chile

5.2.1 Historical evolution of the land tenure system

Before Spanish colonization the Chilean territory was inhabited by numerous ethnic groups which practiced diverse relationships with land. At the moment of arrival of the Spanish colonizers, there were more than ten different indigenous groups across the Chilean territory. Some of them lived in settlements and practiced agriculture in their lands, while the rest lived as nomads or semi-nomads. At that moment, there were no written tenure systems and land rights were based on customary structures (Eyzaguirre, 1982).

5.2.1.1 *Merced* titles (XVI Century)

With the discovery of the American continent, numerous Spanish adventurers crossed the ocean towards the “New World”, motivated mainly by economic expectations, devotion to the service to the King and to evangelization. Although

the geography of the continent posed arduous challenges to these goals, they managed to conquer a vast territory across the continent.

Initially, the Spaniards settled in cities and concentrated their economic interest on gold mining (Borde & Gongora, 1956). Agricultural production to supply the cities with food was carried out in farms located in suburban areas. Nevertheless, the need for pastures for horses (essential for warfare) and other sorts of European cattle arose also quite early. During this period, severe concentration of land under the Spanish crown took place, which gave origin to the so called “War of Arauco” in the southern part of the country, between Spanish conquerors and the indigenous population.

As Gallardo (2002) pointed out, after the conquest, the *Títulos de Merced* (similar to leasehold titles) were the only mechanism providing access to land, and the *Encomiendas*, on the other hand, constituted the main mechanism providing access to the available labour force among the local (indigenous) population. According to Borde and Góngora (1956), the *Merced* title was introduced by the Spanish crown in 1495-1497 when the “colonial” notion appeared for the first time; nevertheless, its relevance was rather modest in this sense as compared to the *Encomienda* system during the 16th century. There were diverse types of *Merced* titles distributed by the Crown, namely, those related to land within the limits of the city (*Solares*) or located near this (*Chácaras*), arable farms (*Mercedes de Labranza*) and cattle farms (*Estancias* or *Estancias de Ganado*), and small sites for building mills (*Trapiches*) for processing metals near mining areas (Borde & Gongora, 1956).

Of these three types of *Merced* Titles, the last two are the most important with regard to land ownership and only the *Mercedes de Labranza* provided the title holder with full ownership of the land, while the *Estancias* provided a right to pasture. For the later, the King explicitly declined the provision of ownership rights since grasslands were of public nature.

> “Initially, the local councils (*Cabildos*) were responsible for the administration of the *Merced* Titles, but afterwards the royal legislation, with the goal of protecting the indigenous property and avoiding abusive concentration of land by powerful inhabitants, delegated the responsibility of distributing titles to the representatives of the King, namely Viceroys (*Virreyes*), courts of justice (*Audiencias*), and Governors (*Gobernadores*) according to the respective types of province. The local councils retained only the responsibility for urban and sub-urban *Merced* titles. This measure was implemented since 1575…” (Borde & Gongora, 1956)

The distribution of *Merced* titles in Chile was extensive. This had consequences in the land related policy making of that time and afterwards, particularly for the indigenous population who had to face clearly unequal conditions.

5.2.1.2 Colonial period (XVII – XVIII Century)

This period is characterized by the development of a mixed population (indigenous-Spanish) and the consolidation of a mainly agricultural society. Furthermore, an escalation of land conflicts in the southern part of the country took place, particularly with the *Mapuche* ethnic group (Eyzaguirre, 1982). Further north (beyond the river Bio Bio), the situation was different; cities were developed and consolidated, numerous agricultural activities gained importance and the first exports were made. The society became more and more diverse and complex (ibid.).

During the XVII century, the *Hacienda* or *Latifundio*[1] gained importance as economic unit which rendered multiple benefits and started replacing the initial mining activities. At the same time the *Encomienda* system lost relevance as labour structure and social institution.

In this respect, Gallardo (2002) notes that the institution of the *Encomienda* came to an end in some parts of the continent already during the first decades of the XVII century and in others, like in Chile, towards the end of the same century. The reason behind this was mainly a decrease of the indigenous population due to the introduction of diseases from Europe, bad living conditions and the appearance of other labour structures which came along with the economic development. In fact, the XVII century became the "century of wheat" because of the increasing exportations to Peru. The socio-political power given to the big landlords (*Hacendados*) was substantial and persisted for decades.

5.2.1.3 Independence

During the XIX century Napoleon invaded Spanish territory in Europe, imprisoned the King (Fernando VII), and appointed his brother to rule over Spain and the conquered territories. The absence of the king motivated civil unrest in the colonies and the establishment of local government units or assemblies. On 18th of

[1] Latifundio: Large estate normally under extensive agricultural land use, characterized by inefficient use of available resources (low technological level), bad working conditions and bad quality of life for the workers. In Latin America, a Latifundio can easily be bigger than 10.000ha. Traditionally associated with absentee landlords, social instability and a great number of land-less farmers.

September 1810 the first government assembly was held in Chile and with this the first step towards independence was taken (Eyzaguirre, 1982).

However, in 1813 the Spanish King was released from imprisonment and after a series of battles between the Spanish army and the “Patriots”, the Spanish crown recovered power over the colony in Chile. Nevertheless, during the following years, the local population opposing the Spanish rule pursued insurrection. In 1818 independence was finally achieved and gave origin to the so-called “anarchy period” in reference to the disordered and chaotic socio-political environment that the country went through.

5.2.1.4 The beginning of the republic, liberalism and national expansion

In the period following independence, 80% of the population lived in rural areas and the country was characterized by economic activities such as mining, wheat exportation and colonization of unoccupied territories, particularly by European immigrants. Furthermore, the Constitution of 1833 was enacted, which specified important aspects regarding land ownership, for instance that only literate persons had the right to vote and to own land. At that moment Chile enjoyed substantial commercial expansion; copper, silver and wheat enriched the upper class and enabled the country to develop in a steady way (Collier & Sater, 2004).

In 1843 a census was carried out with the purpose of acquiring data about population, ownership of real estates, market and industrial activities, as basis for the formulation of policies guiding the development of the country. In 1844 the administrative structure of the country was established and was composed by provinces, departments and further hierarchical subdivisions. This structure was valid till 1885.

From 1861 to 1891 the colonization by European immigrants in the south of the country stabilized. Meanwhile military occupation was carried out in lands which were originally indigenous (*Mapuche*). These lands were auctioned and sold to private investors, in a process which often presented irregularities. Land concentration thus advanced and *Latifundios* retained their importance as economic structure.

In 1866 the most important law of this period regarding indigenous people was enacted. This law declared all land in the southern part of the country between the *Tolten* and *Bio Bio* rivers as state land, stopping thus the land transactions which often occurred between indigenous (*Mapuche*) and non-indigenous people (Bengoa, 2000), frequently under disadvantageous conditions for the indigenous population.

In 1969 the army raided *Mapuche* territory burning houses and farms, killing local people and appropriating more than 2 million heads of cattle. The *Mapuche* economy was not able to resist for a long period and in 1881 the last attempt of war was made, but they were finally defeated by the armed forces. The *Mapuche* people became foreigners in their own land; most of their wealth was taken away and they were forced to become a society of small-scale farmers (Pérez & Navarrete, 2003).

The Law of 1866, modified and enhanced through the decrees of the years 1874 and 1883, set the basis for the *Mapuche* land tenure system during the entire 20th century. These decrees specified that the *Mapuche* lands could not be sold during a period of ten years, even though they were registered under the National Registry System (*Conservador de Bienes Raices*). This requirement was not respected in several cases due to irregularities, e.g. corruption, and thus several *Mapuche* lands where still sold (ibid.).

The so-called process of "settlement" was very slow and ended up completely disarticulating the *Mapuche* society and creating permanent land tenure insecurity, especially due to the fact that the law allowed occupation of these lands by colonizers who, when the "Settlement Commission" came to regularize the land legal situation, where able to demonstrate "effective occupancy" and thus entitled to claim property rights over these *Mapuche* lands (Pérez & Navarrete, 2003). This was based on a procedure similar to the law of *Usucapión* (prescription).

Due to these irregularities, several thousand *Mapuche* people were left without the chance for regularizing their lands, and the State, during the next years, had to provide them with property titles through exceptional procedures in order to satisfy the rightful demands of these families (ibid.).

As Pérez and Navarrete (2003) pointed out, the property titles, in the form of *Títulos the Merced,* were, theoretically, given to the head of the family, who was supposed to settle along with he's relatives in the allocated land. But in many cases the "Settlement Commission" gathered together families of different origin under the same *Título de Merced* thus creating the conditions for inter-familiar conflicts. The state acknowledged this problem and in 1912 commenced slowly replacing the collective titles by family titles. The amount of land transferred through this procedure can be seen in Table 5-3.

The data indicate that the land given to them was not more than 6.1 hectares per person in average and, if we consider that at that time around 150 thousand *Mapuche* people lived in this part of the country, this means that half of the *Mapuche* population was left without "*Titulos de Merced*". In order to solve the problem, the state continued allocating land through mechanisms like "free land property titles"

and transfer of state lands, among others. In summary, around 15% of the IX region (approx. 475 thousand ha) was allocated to the *Mapuche* (average 6.1 hectares/person).

Table 5-3: Land allocated to indigenous families through *Títulos de Merced*

Location	***Títulos de Merced***	**Area (ha)**	**People**
Arauco	66	7.116	1.916
Bío-Bío	6	659	112
Malleco	350	83.512	11.512
Cautín	2.102	317.112	56.983
Valdivia y Osorno	552	66.711	7.261
Llanquihue	2	84	16
TOTAL	**3.078**	**475.194**	**77.751**

Source: (Pérez & Navarrete, 2003)

On the other side, more than 5 million hectares were given to non-indigenous citizens (av. 40 hectares/person) and foreign colonizers (av. 400 hectares/person) (Pérez & Navarrete, 2003).

5.2.1.5 Social crisis, industrial development and expansion of democracy (1891 – 1958).

Between the years 1891 and 1958 substantial changes in the government's development strategies took place, introducing the industrialization model in substitution of the agro-exporter. Therefore, there was a gradual decrease of the agricultural activities and, consequently, of migration of the rural population to the cities, mainly to Santiago. This phenomenon happened mainly between 1930 and 1960, a period in which the rural population lived under deplorable conditions (illiteracy, unhealthy environment, etc.). Once in the cities, this people normally settled in marginal areas that were not any better than the living conditions they had in the rural areas (Armijo & Caviedez, 1997).

As Armijo and Caviedez (1997) pointed out, the migrants were predominantly women (65%), seeking access to higher income. The process was stepwise, in other words, people moved first from the countryside to the nearest village, then to a city of regional importance and then to one of the biggest cities like Valparaiso, Concepción and specially Santiago. The rural-urban migration did not solve any socio-economic problem; on the contrary, it originated socio-spatial conflicts such as informal settlements and employment and lack of basic social infrastructure, etc.

With relation to the subdivision of large properties (*Haciendas, Latifundios*) Garrido, Guerrero and Valdes (1988, p. 48) mentioned that:

> "…the rural property is too big to be properly cultivated…only a 10% of the people who work in the countryside are the owners of the land, the biggest part of them are tenants, workers, temporary workers or homeless people, that cannot have any interest in improving the property that doesn't belong to them… The subdivision of the rural property implies a problem both in economic and social matters, and is of the highest interest…".

As mentioned by Garrido et al. (1988, p. 48), in 1927 a reformist plan was initiated with respect to social matters with the main objectives of starting a vast colonization programme on State lands, developing agricultural cooperatives, establishing a system of credits for small land owners in rural areas, subdividing the *Latifundios* of the central region of the country in order to establish new colonies, regularizing the property titles in the southern part of the country and regularizing the property titles of indigenous lands.

These objectives, although never mentioning the concept of agrarian reform, are certainly very close to the targets of such a process. Even though the actual agrarian reforms started much later in history, it is not incorrect to think that this was the first time that a process of reform concerning land took place.

To achieve the above-mentioned objectives, in 1928 the President passed a law which created the Agrarian Colonization Fund, an entity which played a crucial role since it controlled the State's activities related to land tenure until 1962. The main objectives of this institution were to promote a better land distribution through colonization, by Chilean or foreign farmers, of lands that were not being utilized in a productive manner, and through division of large properties that were not cultivated at that moment (Garrido et al., 1988). But the world economic crisis of the 1930s didn't let the Colonization Fund act as it was supposed to, due to a substantial lack of capital (ibid.).

1938 marks the beginning of a new political period called "Radical Governments", which lasted until 1958, in which the Colonization Fund lost its financial means and the situation changed the way of acquiring lands through purchase to expropriation due to the difficulties of reaching an agreement upon prices. During this period, the first pro-Agrarian Reform movements started to arise.

During its lifetime (1929-1962), the Agrarian Colonization Fund acquired 105 parcels from private owners covering roughly 382.000 ha (24% of the total), and 37 state land plots covering around 1.2 million hectares (76% of the total), which shows a clear focus on acquisition of state land during that period of time. 96,2% of the total area was rainfed agricultural land (Garrido et al., 1988, pp. 56-57).

With this acquired land, till 1962, the Fund created 121 colonies, utilizing around one million hectares of the lands affected by the process of purchase or expropriation, in which it adjudicated 1.050 parcels, which represented a 63,9% of the total acquired lands (Garrido et al., 1988, p. 59). According to CORA (1968), between 1929 and 1964, a total of 1.27 million ha where adjudicated by the Fund which benefited 4,801 families, including numerous foreigners from Italy, Germany and Croatia, among other countries, within the frame of the international refugee programs after second world war (ibid.).

In the process of land adjudication, considerable land fragmentation was generated and a big number of lands were transferred to private investors due to economic or political pressures, legal ignorance or deceit. For these reasons, poverty among the *Mapuche* people increased significantly and, at the beginning of the Agrarian Reforms (1960s), 25% of the lands given to the *Mapuche* had been transferred to private owners (around 130.000ha) (Muñoz, 1999).

As argued by Armijo and Caviedez (1997), in 1959 the Cuban revolution gained strength and, fearing that this situation could expand, the “Alliance for Progress” Conference (Punta del Este, Uruguay, 1962)) recommended Latin American countries to apply modernizing strategies in the agrarian sector. This set the beginning of a process of intervention in this sector that after a few decades resulted in an alteration of the rural spaces with the objective of strengthening (small-scale) farming through re-distributive Agrarian Reforms.

During this decade, the social and productive crisis of the Chilean countryside and in the rest of Latin America aggravated. The agrarian structure during this period remained to be the *Latifundio-minifundio* complex, in other words, there was strong concentration of land in the hands of a few and at the same time a large number of small property owners or tenants (*minifundistas*) and a big number of land-less farmers. As a result, the agrarian sector was no longer capable of producing enough to supply the necessary amount of food for the demographic explosion (population growth in 1960 was 2.56%, but the agricultural production growth was only 1.8%) (Armijo & Caviedez, 1997). This generated an increase in the importation of food products at a time when there was not enough foreign exchange to support this kind of import-based economy. As a result, the rural areas were characterized by a lack of the minimum conditions for a reasonable quality of life. Poverty increased not only in Chile but also all across Latin America (ibid.).

This situation of crisis will set up the context for a deep transformation of the land tenure system in Chile, not only in this matter, but in all social, economic and political matters as well.

5.2.1.6 Agrarian reforms

In 1961 the Charter of the Organization of American States (OAS) agreed to establish an Alliance for Progress for bringing a better quality of life to all people of the continent. The primary objective, in accordance to the recommendations of the Alliance for Progress, was to generate a deep transformation of the agrarian structures, with the objective of guaranteeing a more balanced distribution of landed property and to achieve an increase in agricultural productivity in order to be capable of producing the national demanded amount of food. This is clearly expressed in the following passages from the programme of action (Organization of American States, 1961):

> Title I. Objective of the Alliance for Progress
>
> "6. To encourage, in accordance with the characteristics of each country, programs of comprehensive agrarian reform leading to the effective transformation, where required, of unjust structures and systems of land tenure and use, with a view to replacing latifundia and dwarf holdings by an equitable system of land tenure so that, with help of timely and adequate credit, technical assistance and facilities for the marketing and distribution of products, land will become for the man who works it the basis of his economic stability, the foundation of his increasing welfare, and the guarantee of his freedom and dignity".
>
> Title II. Economic and Social Development, Chapter II. National Development Programs
>
> "2. National development programs should incorporate self-help efforts directed to:
>
> c. The strengthening of the agricultural base, progressively, extending the benefits of the land to those who work it, and ensuring in countries with Indian populations the integration of these populations into the economic, social, and cultural processes of modern life. To carry out these aims, measures should be adopted, among others, to establish or improve, as the case may be, the following services: extension, credit, technical assistance, agricultural research and mechanization; health and education; storage and distribution; cooperatives and farmers' associations; and community development".

In addition, the *Concilium* Vatican II (*Gaudium et Spes* – On the Church in the Modern World, 1962-1965) also made similar important declarations regarding land, the society at large, and the role of the Catholic Church in this respect around

the world. Being Latin America a highly Christianized continent, the declarations made by the *Concilium* were progressive and taken into consideration by the local governments and the local branches of the catholic church, which in many cases were among the biggest landlords in the region. Some of the most relevant passages of this document explicitly refer to the benefits of private ownership and a fair access to it by individuals and communities. Furthermore, it refers to the importance of secure rights and the responsibility of the state in guaranteeing preventing anyone from abusing his private property to the detriment of the common good; in other words, that property implies both rights and responsibilities[2].

The implementation of agrarian reforms in Latin America had results which were often disappointing (Thiesenhusen, 1996). Even more, in many cases the process failed to achieve the primary objectives and ended up generating civil unrest and serious land conflicts, which in many cases escalated up to civil wars.

The first Chilean Agrarian Reform law, the N° 15.020 that created the Corporation of Agrarian Reform (CORA), was enacted in 1962 during the government of Jorge Alessandri Rodriguez. The CORA was supposed to take care of the entire process of agrarian reform, including planning and implementation. This process was top-down, it did not give origin to big changes in land distribution, and very few lands were expropriated to be transferred to the farmers (Armijo & Caviedez, 1997).

During this period, the Catholic Church transferred a considerable part of their rural lands to farmer communities, following the recommendations of the *Concilium* Vatican II in order to achieve equality among the social actors of the world, particularly for marginalized groups.

During Alessandri's agrarian reform, the national context was characterized by a conservative government, in opposition to a very strong presence of a well-organized socialist movement. On the other hand, the international context was characterized by the Cold War (Armijo & Caviedez, 1997).

The second agrarian reform was carried out during the government of Eduardo Frei Montalva. The objective was the expropriation of land (with compensation) and its re-distribution to the farmers. Therefore, a new law of agrarian reform was passed in the year 1967 (N° 16.640), the same that would be used during the government of Salvador Allende (1970 – 1973). The main criteria for the expropriation of land were the size of the property and abandonment or misuse. In terms of size, the law

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[2] See Concilium Vatican II, Gaudium et Spes – On the Church in the Modern World, 1962-1965, "Certain Principles Governing Socio Economic Life as a Whole

was applied to all properties bigger than 80 BIH (Basic Irrigated Hectares[3]). The law specified that the expropriated lands would give origin to transitory settlements, called *Asentamientos,* which were supposed to last between two to five years. People settled could only be farmers living in the expropriated farm, who were head of family and who were older than 18 years of age (Armijo & Caviedez, 1997).

During the *asentamiento* period, the land was to be managed jointly by local CORA administrators and comities elected by the peasants themselves. Although normally this period was to last only three years, it could be extended by two years with authorization by the president. When the period ended, the peasants themselves would have the option of requesting collective, individual or mixed ownership. Whichever they chose, CORA was to retain jurisdiction over the rights to transfer, withdrawal from cooperatives and collectives, and the credit and marketing procedures to be employed" (Kaufman 1972 and Garrido et al., 1988).

By the end of 1969, about 15% of the irrigated land had been expropriated (1,094 *Latifundia*, 246 thousand ha of irrigated lands and 2,406,400 ha of non-irrigated lands) (Armijo & Caviedez, 1997). Although expropriated owners were entitled to compensation, this process generated considerable conflicts, particularly with regard to the compensation payment procedures (Garrido et al., 1988).

This government also stimulated the creation of farmer syndicates as a social right. Due to this encouragement, a big increase in the number of members of farmer organizations was generated. In 1969 there were 76,356 farmers who were members of one of these syndicates. 28,000 families benefited from the process of agrarian reform during this period although the objective was to benefit 100 thousand families and only a 13% of the total agricultural area was affected. One of the main problems was that the strategy did not include economic reforms or support measures that could assist the development process at the local level (Armijo & Caviedez, 1997, pp. 8-9).

In conclusion, the process of agrarian reform of Eduardo Frei Montalva, similarly to that of Alessandri, was closer to a redistributive land reform than to an agrarian reform. The execution of broader support measures in parallel to the redistribution of land is a key issue that defines the process of agrarian reform and should not be overlooked in its implementation.

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[3] Basic Irrigated Hectare (BIH): Is the area equivalent to the area needed for a potential production of an irrigated hectare, Class I of Capacity of Use, located in the Valley of the Maipo River. The law provides a conversion table (República de Chile, Law N°18.910. Ley Orgánica del Instituto de Desarrollo Agropecuario (Organic Law of the Agricultural Development Institute), INDAP 1990). The objective of the BIH is to provide a legal system to compare areas of land in terms of potential production.

In 1970 Salvador Allende Gossen was elected president. The government of the so-called Popular Unity, (*Unidad Popular*, *UP*) had the objective of leading the country towards Socialism, even though the Cold War was present in the international context. Consequently, the agrarian reform was not an isolated process; on the contrary, it came along in a context of global change (Armijo & Caviedez, 1997).

The UP believed that an organization of farmers should take control of the agrarian process, reason why great conflicts were originated between the *Terratenientes* (big landlords) who were against the reform process, and the farmers who wanted this process to be accelerated. Due to these conflicts, a number of illegal land occupations were carried out by *Mapuche* farmers, temporary workers and small land owners (see following table) (ibid.).

Table 5-4: Illegal occupations of lands (1967 – 1971)

Year	N° of illegal Occupations
1967	9
1968	26
1969	148
1970	456
1971	1.278

Source: Kay 1975 quoted by Armijo and Caviedez 1997.

The syndicates continued growing in quantity as well as in number of members. According to the Employment Authority (*Dirección del Trabajo*) in 1971 there were 632 syndicates representing around 127 thousand farmers (Garrido et al., 1988).

As Armijo (1997) points out, the process was then accelerated and the farmers started making pressure for the expropriation of properties smaller than 80 BIH. From the beginning of 1971 to July 1972, 3.282 farms were expropriated (371.299 ha of irrigated land and 4.045.974 ha of non-irrigated lands), which meant 21% of the country's productive lands. The resulting situation was a period of big changes in the land tenure system in which the *Latifundio* was eliminated in the country. But the agricultural production did not improve as it was expected to, as a result an increase of imports was necessary and, due to the lack of agreement between the political parties, the establishment of a clear structure for the reformed sector was impossible. All this, added to the international context already mentioned, created instability in the economy and set the context for deep political changes.

In 1973 Augusto Pinochet Ugarte took over the government and put an end to the process of reform carried out by the former administration. In 1975 a new process

of neo-liberal restructuring started, which gave origin to a reverse process called "counter agrarian reform".

The key elements of the policies related to land tenure in this period are the access of the national economy to international markets based mainly on agricultural production, transformation of the role of the State (high intervention through dictatorship), dynamization of the land market through reduction of restrictions for land transactions, liberalization of prices of agricultural products which were now determined by economic dynamics of demand and supply, and the creation and application of a new labour plan that provided security to investors and which operated against the organization of farmers. (Armijo & Caviedez, 1997)

The government, through the counter reform process, laid the ground for returning expropriated lands to their former owners in a complete or at least partial way. Other parts of these lands where leased to private investors or commercial companies. Yet another part was given to the farmers on an average of approximately 8 BIH[4] per farm. The new owners, without the support of any institutional mechanism in terms of credit or technical assistance, started selling their parcels immediately, mainly to companies.

The neo-liberal model generated productive specialization in different sectors and a further differentiation of rich and poor regions across the country. The rich ones were those specialized in the production of fruit, forest, livestock, fisheries, and mining. The poor ones were those which lacked capital and modern technology. Land was used only extensively by family labour, the production mainly for self-consumption or for the local market (Armijo & Caviedez, 1997).

The resulting situation in terms land tenure by 1985 can be seen in Table 5-5, where it is evident that the degree of equality or at least the balance in land tenure systems was, to say the less, inadequate to the needs of land users, as only 1.4% of the owners (6,000 large estates proprietors) possessed approx. 26% of the land, while the minifundium strata, constituting 77.1% of the owners (330,000), only possesses 16% of the country's agricultural lands. This inequality even more obvious in the two superior strata (20 – 80 and >80 ha), resulting in 4.2% of the owners (18,000) possessing approx. 56% of the agricultural land.

[4] Basic Irrigated Hectare (BIH): Is the area equivalent to the area needed for a potential production of an irrigated hectare, Class I of Capacity of Use, located in the Valley of the Maipo River. The law provides a conversion table (República de Chile, Law N°18.910. Ley Orgánica del Instituto de Desarrollo Agropecuario (Organic Law of the Agricultural Development Institute), INDAP 1990). The objective of the BIH is to provide a legal system to compare areas of land in terms of potential production.

Table 5-5: Land tenure structure in Chile 1985.

Social Category	Size	No. of Proprietors	% of total area	% of total number	Average size (BIH)
Minifundium Peasant	< 5	330.000	16	77,1	1,4
Middle size and rich peasants	5-10	55.000	12	12,8	6,5
Commercial Proprietors	10-20	25.000	16	5,8	16,1
Commercial middle size properties	20-80	12.000	30	2,8	65,0
Large estates proprietors	> 80	6.000	26	1,4	110
Total		**428.000**	**100**	**100**	

Source: (Gallardo, 2002)

Therefore the situation is characterized by a concentration of land in the hands of a few rich people and companies and a highly fragmented territory. This kind of distribution has been a characteristic of a considerable part of the history of the country.

5.2.1.7 Chile's land tenure system today

5.2.2 Land tenure regimes

In 1988, after a long period of dictatorship, the military regime came to an end and the process of returning to democracy commenced. One of the most evident consequences of the military government regarding land tenure was the big relevance that private property (freehold) had in people's perception, in comparison to all other tenure regimes. This was possibly due to the fact that, although from a legal perspective there are restrictions that apply to land use in rural and urban areas, a common perception is that private ownership entitles proprietors to use land freely with only minor restrictions. A lack of enforcement of land use regulations particularly in rural areas has often strengthened this erroneous view of land rights, restrictions and responsibilities.

Regarding the property rights, the current Constitution (*Constitución Política de la República de Chile, 1980*) specifies that the State is responsible to ensure[5]:

- "[…] That every citizen has the liberty of acquiring dominion of every kind of good, with the exception of those which nature has made common to all citizens or which must belong to the Nation itself according to the specifications of the law … Some laws, if the national interest requires so, can establish limitations or requisites for the acquisition of the dominion of some goods (Chapter III, Art 23°).
- The right to property, in its several types, over every kind of corporal or incorporal goods (Chapter III, Art 24°).
- That only the law can establish the way of acquisition of the property, of use, enjoy and manage it and the limitations and obligations that come from its social function (Chapter III, Art 24°).
- And that the property cannot, by any chance, be taken from its owner, with the exception of the special cases in which the law authorizes the expropriation in order to fulfil the requirements of the society or the Nation itself. The affected owner has the right to compensation (Chapter III, Art 24°)".

Private properties can be rented by contract between the owner and the tenant, in which the first party keeps the legal right of ownership but gives tenancy rights to use and manage the land to the second. This kind of tenancy arrangement is characterized normally by a fixed rent and by the transfer of all associated risks to the tenant (Garrido et al., 1988).

Alongside with this tenure arrangement another form of contract can be observed particularly in the agrarian sector: *Medieria* or Sharecropping. This tenure institution is characterized by a variable rent, expressed in terms of kind or a percentage of the yield or revenue, and thus by the sharing of risks and benefits between the owner and the tenant.

Another tenure regime is collective ownership, which refers to a system that belongs to all those who work personally on a particular property, or to a cooperative farm constituting an economic community. Every member contributes with his own personal effort to common work and profits from the products obtained from it (Garrido et al., 1988). Contrary to former socialist countries this producer cooperative is based on voluntary entry and exit options.

[5] This is a non-official translation made by the author.

In addition to the above mentioned tenure regimes, 32% of the territory, in other words around 240.000 km^2, is declared as public land, from which a 59% (around 141.600 km^2) is protected under one of the categories of the National System of Protected Areas (SNASPE), including National Parks, National Reserves, and Natural Monuments (Government of Chile, 2010 (b)).

In addition to these systems, the Government can also allocate land to individuals, companies, or other legal entities as concessions. The contracts can be made under a monetary agreement between the parties or without any cost to the tenant in case the purpose of the project is non-profit oriented. Normally the contracts are made on a 50 years basis with possibility of extension (ibid.)

5.2.3 Indigenous land tenure

Regarding indigenous people, the law allows for collective ownership of land as well, but with restrictions that are specific to these lands. The Indigenous Law of 1993 (N°19.253), which created the Indigenous Land and Water Fund and the National Corporation for Indigenous Development (CONADI), provides a formal definition for indigenous lands and stipulates that these will not be affected by normal property taxes (Government of Chile, 1993)

CONADI, through Lands and Water Fund, can allocate subsidies to indigenous individuals and communities of any of the nine officially recognized ethnic groups for purchasing land or expanding their communal lands. This fund supports also the solution of land conflicts, provides financial resources for regularization or purchase of water rights or for infrastructure to provide this service, and stipulates a period of 25 years in which the lands and water rights acquired through this fund cannot be expropriated. These lands can neither be sold nor transferred, except between people or communities of a same ethnic group and cannot be rented out, used or administrated by non-indigenous people (only a period of five years is allowed in exceptional cases). Individual land parcels are affected by inheritance regulations, and communal lands are to be managed in accordance with the traditions of each ethnic group (ibid.)

CONADI is a public institution currently under the Ministry of Social Development, although initially it was under Ministry of Planning and Cooperation. Its mandate includes promoting the recognition and respect to the ethnic groups, to their communities and to the people that compose them. Additionally, CONADI is responsible for promoting the empowerment of indigenous women, protecting indigenous people and their communities particularly in conflicts about land or water rights, protecting the indigenous lands and access to land for indigenous people and protecting indigenous rights (Government of Chile, 2010 (a)).

Over the last decades, the government has facilitated the allocation of a considerable amount of land to indigenous communities by use of the resources provided by the Lands and Water Fund. Main target groups of this initiative are indigenous families who own less than 0.3 hectares of basic irrigation (BIH) per family member and those families who are facing land conflicts. According to Zaror & Lepín (2016), between 1994 and 2015 the Government purchased and transferred 158.493 ha of private lands to indigenous communities in four regions and 67.392 ha of public land, particularly for the resolution of land conflicts. For 2017 the target was to reach around 19 thousand families (Instituto Libertad y Desarrollo, 2016), for which the Government has allocated a budget of approx. one million USD for acquisition of water rights, around 110 million USD for the acquisition of land rights and around 1,35 million USD for the regularization of tenure rights. This amount is around 6 % lower than in 2016 but shows the commitment from government to continuously invest in restitution of indigenous lands and land conflict resolution.

However, the purpose and operation of the Lands and Water Fund is controversial. Critics say that the Fund is not effective enough and may even promote the intensification or appearance of land conflicts, particularly, due to the deficient selection criteria for potential beneficiaries. According to Zaror & Lepín (2016) there are fundamental criteria that are not part of the conditions stipulated by the law, for example validation of the origin of the community with should be based on the lands that are being claimed, or verification whether the community has already been benefitted in the past, by subsidies of the Fund. As a consequence, according to the same source, the land restitution approach may be misused by communities which actually don't fulfil the traditional criteria for land restitution.

5.2.4 Informal settlements

Informal settlements exist mainly in marginal areas of cities across the country and many efforts are being undertaken to improve the situation of the people living under these conditions. However, the process of rural-urban migration remains strong and there are insufficient employment possibilities in the formal sector, which motivates proliferation of informal housing.

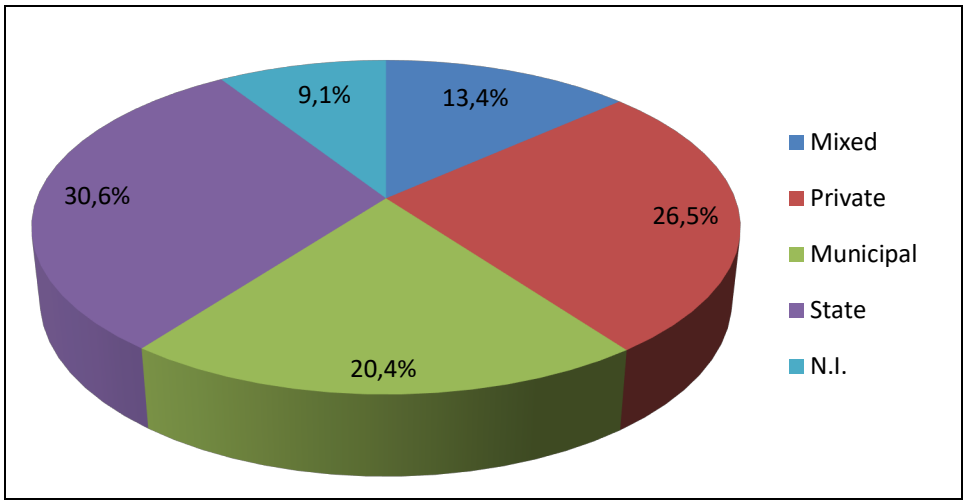
The 2007 census of informal settlements by the Centre for Social Research of the Chilean NGO *Un Techo para Chile* ("A Roof for Chile") showed that there were 28.578 families living in a total of 533 informal settlements across the country. According to the same source, only 10.3% of these settlements had more than 100 families (Un Techo para Chile, 2007). Unfortunately, the numbers have increased in the past 10 years. In 2011 there were 657 informal settlements across the country

and by 2016 there were 660 with a total of 38.770 families or approx. 116.310 people (Un Techo para Chile, 2016), from which around 23% were indigenous, showing the particular vulnerability of this group of the population (Un Techo para Chile, 2015).

The settlements are found in 153 municipalities across the country (from 345 in total) and around one third of them are located in five big and medium-size cities, with a total of 83.2% being located in urban areas (Un Techo para Chile, 2016). Around one third of the currently existing settlements were established between 1991 and 2000, and between 2001 and 2011 another 25% were established. This means that half of the settlements developed between 1991 and 2011 (ibid.), showing a clear growth acceleration in the last few years. Within these settlements, access to basic services is low, with 75.8% of the households having no access to drinking water, 91.5% are without access to sewerage and 47.6% with informal access to electricity only.

Regarding ownership of the plots occupied by informal settlements, the following graphic shows that most of them are located on public lands (over 50% considered to be Municipal and State lands) and 27% on private ones. Furthermore a 13% is classified as mixed as both formal owners and informal settlers occupy the land (Un Techo para Chile, 2007).

Figure 5-1. Ownership of lands occupied by informal settlers



(Un Techo para Chile, 2007)

For a long time the NGO *Un Techo para Chile* has been carrying out a national campaign with the target of eradicating all informal settlements in the country. The initiative includes the delivery of housing as well as socio economic and legal assistance to dwellers to more effectively improve their livelihoods. Although fall-backs have taken place, such as the earthquake of February 2010 and a rapid increase of migration by foreigners from other Latin-American countries (Martínez

& Labbé, 2017) and have affected the achievement of this goal, the institution remains optimistic that the country will one day celebrate that there are no more informal settlements within its territory.

5.2.5 Land registration system

The registration system in Chile was developed two centuries ago as a hybrid between the French tradition, particularly of the Civil Code, and German law, contrary to other legal frameworks which had come more directly from the Spanish norms (Mohor, 2010).

Land registration in Chile is voluntary and built on the basis of personal folios, not real folios, with a single identifier per parcel, and is pre-requisite, proof and guarantee of possession. In land transactions, merely the change in possession is registered, thus following the deed system. This has the following consequences (Conservador de Bienes Raíces de Santiago, 2010):

- The registry is simply declarative and not constitutive as it validates the present possession, but not dominion (perfect control in right of ownership).
- It does not prevent claims by third parties (previous owners) on the same parcel
- It does not constitute a source of real rights but only material (possession)
- The purpose of the registration is to record the change, which can only happen through prescription.
- Public display is a pre-requisite.

The fact that the system uses personal folios instead of real (parcel) folios for indexation, may, in some cases, lead to difficulties in searching parcels in the register by their location, which may lead to parallel deed registration chains and, therefore, to land disputes.

The system is organized as a judicial service provided by lawyers called *Conservadores* (Registrars) who are employees of the judicial branch and are thus under the authority of the Supreme Court (headquarters in Santiago). There are currently over 400 *Conservadores* in the country; they are appointed by the President in coordination with the Ministry of Justice (Corporación Chilena de Estudios de Derecho Registral, 2010).

The Registrars are responsible for the registration of real estates. This includes three basic registries, namely the property registry, the mortgage and encumbrances registry and the registry of interdictions and prohibitions. Their jurisdiction is defined by the territorial limits of the authority of the local courts (one or more municipalities, usually a few). The only exception is the Registry of

Santiago, funded in 1931, which is composed by three registrars with jurisdiction over 36 municipalities (Mohor, 2003).

Since its beginning the registration system has worked in an adequate, affordable, inclusive, efficient and secure way and it has gone through a number of substantial modernization processes. The beginning of the digitization of the registry goes back to 1998, when the paper files started being transformed into digital documents, but without a possibility of online access from the side of the users (Conservador de Bienes Raíces de Santiago, 2010).

Already in 1999, the first modernization of the online platform was carried out in order to improve the services to the public. In the following years the data base system was modernized and the all registries integrated in the same database. This increased efficiency of the system quite significantly (ibid.).

However, as mentioned before, according to estimations of the last Agricultural Census of 2007, there were over 69.000 cases of irregular property in rural areas in the country. Since 1993, the Ministry of National Assets has implemented a campaign aiming at formalizing irregular properties. The campaign's progress report of the year 2009 (Bello et al., 2009) mentions that the magnitude of the problem certainly justifies the existence and continuity of the regularization programme. Indeed, the problem continues to be severe. The campaign's evaluation report of 2015 shows that approx. 50.000 households still live under irregular land tenure conditions, most of them being poor families (Oyanedel et al., 2015). According to the evaluation, the programme presents deficiencies, first, regarding the availability of historical information on property regularization before 2013 which is limited or insufficiently systematized, thus hampering an efficient historical and situational analysis and the allocation of priorities. In this regard, information management seems to be a problem as well. And second, there is a need for higher productivity in management, with clear goals and allocation of priorities. Currently, due to a lack of explicit impact indicators, there is internal disagreement regarding the allocation of resources and operational focus.

In addition, the absence of a comprehensive parcel-based cadastre system is one of the biggest obstacles for all activities aiming at the strengthening of land governance. The most comprehensive database is administered by the Internal Taxation Service (*Servicio de Impuestos Internos, SII*), which currently manages data about approx. 7.5 million parcels (SII, 2017). Often, however, with primarily alphanumeric information only or, in those cases where cartographic information is available, this is commonly not georeferenced (Hendricks et al., 2015). According to Noguerales (2018), between 2.0 and 2.5 million parcels are officially recorded in

the land registries across the country. The considerable difference compared to the number of parcels managed by SII can be attributed to differences in the definition of “parcel” and existence of a high number of unregistered parcels. Other parcel based datasets are available through the spatial data infrastructure (e.g. parcel data from 70 municipalities held the Ministry of Economy), but the overall status remains to be fragmented, out-of-date and largely incomplete.

5.2.6 Land tenure typology

Land tenure regimes in urban areas in Chile differ from those found in rural areas, primarily in terms of diversity. While in urban areas four main types are found, in rural areas the number of tenure types is higher. On the other hand, titled individual property as well as collective and public property both in urban and rural areas are based on the civil code, which provides the foundation for the definition of the bundle of rights, restrictions and responsibilities which are vested in each of these tenure types. Informal possession in urban, peri-urban and rural areas is acknowledged and addressed through legal instruments aiming at regularizing informal land tenure. Land use and housing rights are defined by the civil code, which provides protection for the rights of both the owners as well as the tenants.

In rural areas there are two tenure regimes which are not found in urban areas, these are indigenous land tenure and sharecropping. As mentioned in section 5.2.3, indigenous lands are affected by specific restrictions regarding transferability.

Sharecropping and renting are common practices in rural areas, particularly in family agriculture, which represents almost 80% of the total number of agricultural endeavours in the country, covering a total area of 9.4 million ha (Berdegué & Rojas, 2014).

It is important to notice, that all tenure types are potentially affected by overlaps and conflicts, particularly due to the lack of consistent georeferenced land information.

In urban areas, formal and informal tenure types are found. As will be discussed in upcoming sections of this document, the level of informality in land tenure has motivated the establishment of a dedicated government programme and implementation of considerable efforts to regularize informal land tenure. In terms of formal arrangements, there are three main types of registered land tenure arrangements, namely titled individual, titled collective and public property, all which find official recognition in the existing legal framework.

Table 5-6 shows a typology of tenure regimes present in urban areas, including their legal basis and their potential overlaps and issues.

Table 5-6. Types of land tenure regimes present in urban areas in Chile

Tenure Type	**Legal recognition and Characteristics**	**Overlaps and potential issues**
Titled individual property	Legal recognition: Civil Code Registration/recording: registered Transferability: Transferable	If cadastral information is deficient overlaps could occur
Titled collective property	Legal recognition: Civil code and Law N° 19537 Registration/recording: registered Transferability: Transferable	Areas for common use could originate conflicts
Untitled property in urban and peri-urban squatters on public and private land	Legal recognition: regulations related to the land tenure regularization programme of the Ministry of Public Lands Registration/recording: eligible for registration once the suitability assessment is complete Transferability: Possession rights often transferred informally by the settlers	Overlaps with public and private land may occur
Public property	Legal recognition: Civil code and D.L. 1939 Registration/recording: registered Transferability: transferable with restrictions	If cadastral information is deficient overlaps could occur

Source: the Author, based on current legislation and expert interviews

Similar to the situation in urban areas, informal regimes are also found in rural areas. On the other hand, in rural areas there is a higher diversity of formalized regimes, which include private individual and collective property, as well as public lands and indigenous lands and sharecropping.

Table 5-7 shows a typology of tenure regimes present in rural areas, including their legal basis and their potential overlaps and issues.

Table 5-7. Types of land tenure regimes present in rural areas in Chile

Tenure Type	Legal recognition and Characteristics	Overlaps and potential issues
Titled individual property	Legal recognition: Civil code Registration/recording: registered Transferability: transferable	Often overlaps with other individual property rights due to lack of appropriate cadastral information
Titled collective property	Legal recognition: Civil code and Law N° 19537 Registration/recording: registered Transferability: Transferable	Areas for common use could originate conflicts
Public property	Legal recognition: Civil code and D.L. 1939 Registration/recording: registered Transferability: transferable with restrictions	If cadastral information is deficient overlaps could occur
Untitled individual property on private land	Legal recognition: regulations related to the land tenure regularization programme of the Ministry of Public Lands Registration/recording: eligible for registration once the suitability assessment is complete Transferability: Possession rights often transferred informally by the settlers	Often overlap with other individual property rights
Untitled individual property on public land	Legal recognition: regulations related to the land tenure regularization programme of the Ministry of Public Lands Registration/recording: eligible for registration once the suitability assessment is complete	Overlaps with State rights.

	Transferability: Possession rights often transferred informally by the settlers	
Indigenous lands	Legal recognition: Indigenous Law N°19.253 Registration/recording: registered Transferability: Transferable with restrictions	Rights often overlap with other rights-holders
Sharecropping (*Medieria)*	Legal recognition: D.L. 993 Registration/recording: registered (voluntary) Transferability: Transfer is allowed only with formal written authorization from the owner. Informal transfers occur as well.	Often overlap with other individual properties

Source: the Author, based on current legislation and expert interviews

5.2.7 SWOT analysis of land tenure security in Chile

The land tenure system in Chile has numerous strengths and weaknesses. On the one hand the land registration system has a long tradition of provision of secure, reliable and affordable services and guaranteeing secured access to registered land rights in rural and urban areas. On the other hand, the high number of unregistered parcels and the lack of a consistent basis of parcel-based geoinformation, represent a considerable potential for the proliferation of land disputes, a tremendous challenge for land and spatial planning and for collection of taxes. This situation affects both rural and urban areas across the country. The following sections provide a summary of the analysis performed in previous chapters in the form of a SWOT analysis using land tenure as a standpoint.

5.2.7.1 Strengths

The main strength of the land tenure system is the high level of security offered by the land registration system, which is efficient, effective and reliable for all parcels which are duly registered. In addition, the latest developments regarding the internet platforms as well as the integrated digital databases are a considerable contribution to good land governance as they increase transparency of the system and make its work much more efficient.

Ongoing reforms aiming at the modernization and improvement of effectiveness and coverage of the system are being executed, for instance the property

regularization campaign, which should reduce the risk of land disputes and forced evictions. The government and the association of registrars have demonstrated their willingness to change and improve their systems and methods. The registrars have in fact adopted a leadership role in the introduction of reform and improvement projects. From a land Governance perspective, this aspect is crucial since allows the system to respond to current and future challenges.

5.2.7.2 Weaknesses

A considerable weakness in the registration system is the use of personal folios for indexation instead of real (single parcel) folios, which may have negative consequences on the efficiency and effectiveness of the system, in case parallel deed registration chains occur.

Furthermore geo-referencing is still deficient, the cadastral information held by the Internal Taxation Service (SII) is incomplete and not integrated with the land registry. The geographic information has thus low relevance in the security of land tenure, as security is provided exclusively by the registry.

There are unsolved conflicts with regard to the indigenous population and their claims on land. The conflicts have escalated considerably in the past decades and violent clashes often occur between indigenous groups and the government. Although a great amount of resources have been invested in solving this disputes, a long term solution has not been attained yet.

All these aspects are serious obstacles to the implementation of good land governance.

5.2.7.3 Opportunities

Chile is in a good overall economic position, which means that financial resources are available for public and private investment in modernization and reform measures.

The OECD membership as well as the Sustainable Development Goals imply that a number of policies and procedures need to be improved in order to meet the related standards and targets.

These are great opportunities for the country to move forward and modernize the systems related to land and land tenure security.

5.2.7.4 Threats

Decision-making relies too often on market forces and trends. As a consequence, the most vulnerable groups, such as the indigenous population and the poor, may

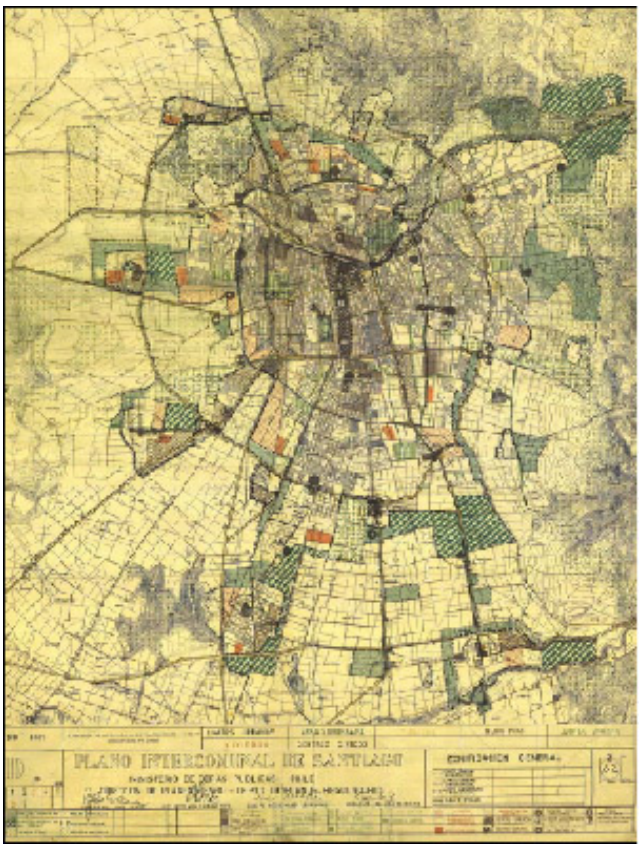
suffer of unequal conditions. Particularly with regard to indigenous people, there are a number of active conflicts generating civil unrest and violent clashes. In the future, these conflicts will continue causing severe damages to governance thus posing a threat to land tenure security to both the indigenous and non-indigenous population.

5.3 Spatial and land use planning in Chile

5.3.1 Brief historical review of the planning system

Since independence (1818), there have been several changes in political paradigms, which have affected the ways in which the territory has been planned and developed. From the year 1960, with the approval of the first Inter-Municipal Land Use Plan of the city of Santiago (see Figure 5-2), which comprised 17 municipalities; the government started its process of centralization regarding spatial planning. As of that moment, the entire system of urban and territorial planning in Chile would be under guidance of the Ministry of Housing and Urbanism (Pontificia Universidad Católica de Chile, 2005), which was responsible for the elaboration of a National Plan for Urban Development.

Figure 5-2. First master plan of Santiago (1960)



Source: Pontificia Universidad Católica de Chile 2005, p. 7.

This plan had the main objective of generating a balanced system of cities which would be capable of sustaining a harmonic growth of urban areas. At the local level, the objective was to encourage the development of Municipal Land Use Plans. 47 instruments of this kind were prepared between 1965 and 1967, in addition to the 82 which were prepared since the beginning of the 1930's (Palma and Sanfuentes 1979, p. 37, cited by Pontificia Universidad Católica de Chile 2005, p. 7).

During those years, the so-called "pre-investment assessments" played a very important role. The main objectives of these studies were to acquire and communicate local context information, to conduct a regional, micro-regional, or municipal socio-economic and physical analysis, conciliate the local development with the national development goals and the aims of the community, and to achieve the participation of the local communities in the planning process. During the "Popular Unity" period (1970 – 1973) the spatial planning system was influenced by studies regarding regional systems of populated centres. By doing so, the intention was to link urban development with the regional economic processes.

In 1975 the General Law of Urbanism and Construction (N°458) was enacted. As stated in Article N°2, this is a legislation of general character and has three levels of action:

- The General Law, which contains the principles, attributes, authority, faculties, responsibilities, rights, sanctions and all other norms regulating organizations, personnel, professionals and individuals in the context of urban planning, urbanization and construction.
- The General Ordinance, which contains the statutory provisions of this law and which regulates the administrative procedure, the process of urban planning, urbanization and construction, and the technical standards of design and construction in the last two issues (urbanization and construction).
- The Technical Norms (Building code), which contain and define the technical characteristics of the projects, materials, and systems of construction and urbanization, for the fulfilment of the standards demanded by the General Ordinance.

Article N°55 stipulated that, outside the urban limits established in the municipal land-use plans, it is not allowed to construct roads, subdivide land to build up settlements, to construct buildings apart from those necessary for agricultural

activities carried out within the plot or the houses of the owner/s and the workers, or for the construction of dwellings for social housing purposes.

According to Singer (2002, p. 1044),

> "the zoning enabling act generally requires the municipal government to establish a comprehensive plan for the municipality as a whole. Today most jurisdictions require the adoption of a plan that is separate from the zoning ordinance itself, showing the general divisions of the municipality into residential, agricultural, commercial and industrial uses and describing the objectives of the plan and the policies and standards that are to guide real estate development within the jurisdiction".

Zones are established in accordance with a rational scheme for promoting development in a way that avoids overlapping of incompatible uses. The economic development model imposed during the second half of the 1970's in Chile, took the country towards a strong liberalizing and privatizing process in all aspects of public and private activities. Accordingly, the National Policy on Urban Development of 1979 stated that "urban land is not a scarce resource…the use is to be defined by its biggest profitability. The land is a resource which is traded in a free market… All restrictions to the natural expansion of the urban areas are to be removed and procedures to assist this objective are to be developed in order for these areas to follow the market trends" (Ministry of Housing and Urbanism 1981a, p. 10 and 13, cited by Daher, 1991, p. 3).

Due to the 1979's policy, considerable financial resources were allocated to urban areas with the objective of attaining the highest possible profits, without prudent consideration of the spatial and social consequences. In this context, significant transformations occurred within the limits of the metropolitan urban areas, for example, a 60.000 hectares area was defined as potential urban area for Santiago, almost twice the size of the city at that particular time. It was argued that due to the increase of land supply the price of the land would drop, contributing to the solution of the housing shortage problem (ibid). In reality, the prices not only didn't drop, they actually increased (Trivelli 1981, p. 62, cited by Daher, 1991).

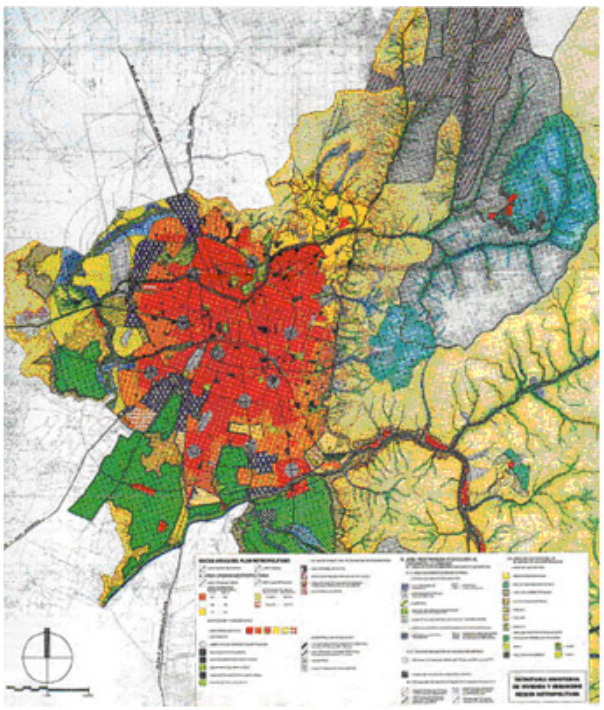
In 1980 a decree on subdivision of rural lands was enacted, which stipulated that land suitable for agriculture and forestry located outside urban limits or outside the limits of the Inter-Municipal Land Use Plans could be subdivided freely by their

owners, provided that the resulting lots had areas of not less than 0,5 hectares. The effects of this norm were disastrous in terms of fragmentation and land speculation.

During the 1990's, the social as well as environmental and territorial consequences of the urban development in cities were some of the most important issues in the governments' development agenda. During this period, the government attempted to develop solutions in the field of spatial planning and, for this reason, "new" concepts like people's participation, human settlements, environment, sustainable development and land use planning would become real paradigms around which all projects in this field would be formulated.

In 1994, a new Inter-Municipal Land Use Plan for the Metropolitan region of Santiago was designed (see Figure 5-3). Its approval responded to the necessity of having a plan which allowed for bringing order to a region which was significantly affected by the development scheme imposed during the military government. Nevertheless, the propositions of these instruments were rapidly modified; for example, through provisions which had the objective of accommodating the plan to the interests of real estate and development companies.

Figure 5-3. Inter-municipal land use plan of the Metropolitan Region 1994.



Source: Pontificia Universidad Católica de Chile 2005, p. 10

In November 2003, the so-called Conditioned Urban Development Projects instrument was added to the already diverse spectrum of planning instruments,

which incorporated more flexibility to the system by allowing the creation of urban centres by private enterprises under supervision of the public sector, as a way of structuring the future urban development of the regions.

The resulting process of centralization of the country is not only a consequence of the political paradigms of the different political phases which the country has gone through, but also of the economic model that has allowed the market to make land-development-decisions at every administrative level.

5.3.2 Current spatial planning instruments

According to Waissbluth (2006), the success of the process of decentralization, including spatial planning activities, has been affected by a vicious circle of multiple dimensions generating weak governance and fragile regional and municipal management.

> "The sectoral ministries and the Ministry of Finance, resist the transference of resources and local decision-making autonomy to the regions and municipalities, alleging lack of management capacity. The sectoral ministries tend to resist the territorial coordination with the objective of maintaining the insularity of their favourite programmes. At the same time, the significant lack of resources prevents them from developing their management capacities. The political parties have no interest in solving these problems, because they fear they would generate local competitors. The Intendants and Regional Ministries' Secretariats, the same as the candidates to the congress, have been appointed so far in Santiago, essentially due to a political balancing criteria" (Waissbluth 2006, p. 65).

Regardless of the current decentralization agenda, the lack of autonomy of the municipalities is a fact. In addition, the absence of a clear political strategy in this respect is evident. The opinions range from "it is not possible to transfer more responsibilities to the regional governments" to "it is necessary to transform Chile in a federal State" (Waissbluth and Leyton 2006, p. 3).

Beyond the measures taken by the government to decentralize the planning procedure through the empowerment of the local governments, the current instruments and structures require profound modifications at all administrative levels. These modifications are not only necessary in terms of structures and procedures, but also in terms of perceptions and organizational culture. In this context, a crucial aspect to consider is planning in rural areas, since at this point it

is clear that the current planning instruments focus almost exclusively on urban planning and development.

Nowadays the urban planning structure is composed by a hierarchical arrangement that comprises the instruments described in Table 5-8. There are currently twelve inter-municipal land use plans in the country, which provide guidance to urban development in municipalities that don't have a valid municipal land use plan. This is the case of the metropolitan land use plan of Santiago (1994), which, considering that it is over 20 years old, provides only weak guidance and norms to, for example, construction of new buildings and population density (with implications on transport infrastructure, among others) in those municipalities. Since around one third of the municipalities composing the metropolitan area don't have a valid land use plan, there is a potential risk for this areas to be affected by private development measures that do not follow the quality and aesthetic principles and goals of the respective municipalities (Velásquez, 2016).

Table 5-8. Hierarchical arrangement of urban planning instruments

Instrument	**Description as stipulated in the Law of Housing and Urbanism**
Regional Urban Development Plan	• Regional urban planning provides orientation for the development of urban centres in the regions. • Regional urban planning is carried out based on a Regional Urban Development Plan, which defines the roles that urban centres should play, their areas of influence (development axis), expansion targets, etc. • The Regional Urban Development Plan shall be designed by the Regional Secretariats of the Ministry of Housing and Urbanism, in line with the regional policies and goals regarding socio-economic development (regional development strategy, sectoral development strategies). • The regional urban development plans shall be approved by the regional council and enacted by the Intendant. The instructions stipulated in it shall be incorporated in the metropolitan, inter-municipal and municipal plans.
Inter-Municipal Land Use Plan	• Inter-Municipal Urban Planning shall regulate physical development in urban and rural areas of multiple municipalities that, because of their interrelationships, form an integrated urban unit. • Urban units exceeding 500.000 inhabitants will be categorized as Metropolitan Areas • Inter-Municipal Urban Planning is realized through the Inter-Municipal Land Use Plan or the Metropolitan

	Land Use Plan, which regulate physical development at this hierarchical level • For municipalities that don't have a valid municipal land use plan, the dispositions stipulated by the inter-municipal (or metropolitan) land use plan shall apply
Municipal Land Use Plan	• Municipal Urban Planning shall promote a harmonic development of the municipal territory, particularly of its settlement areas, in line with the regional objectives and goals regarding socio-economic development • Municipal urban planning will be realized through the Municipal Land Use Plan, which is an instrument composed by a set of norms regarding adequate specifications and conditions for infrastructure, security in private and public places, and functional relationships between housing, work, services and recreation areas. • The plan shall stipulate instructions regarding land use or zoning, location of community services, parking places, hierarchy of mobility infrastructure, urban limit, densities, and determination of priorities for urbanization in designated urban expansion areas based on the feasibility of provision of basic services and infrastructure.
Sectional (detailed) Plan	• The sectional plans shall be designed in cases where a higher degree of detail is required for the implementation of the municipal land use plans. The sectional plans will stipulate with a high degree of accuracy the location and dimensions of streets, detailed zoning, compulsory construction areas, compulsory urban renewal, and areas affected by expropriation, etc. • The elaboration of sectional plans will have a compulsory character in municipalities exceeding 50.000 inhabitants and in those which are part of priority areas defined by the regional secretariat of the Ministry of Housing and Urbanism, particularly in cases where an urgent realization of public infrastructure or expropriation is necessary.
Urban Limit	• The Urban Limit refers to an imaginary line that sets the boundaries or urban areas and urban expansion areas, which delimit the settlement areas from the rest of the municipal territory

Source: (Ministry of Housing and Urbanism, 2017)

In fact, this phenomenon is widely observed in the country. A recent study of the Chilean Chamber of Construction (2017) shows that approx. one third (110) of all

municipalities in the country don't have a valid municipal land use plan. 60% of the currently valid land use plans of municipalities with more than 50.000 inhabitants are over ten years old, with an average of 17.3 years (ibid). This implies a system which is largely obsolete and inefficient, which provides the basis for land use conflicts, disputes among citizens and construction companies, uncoordinated urban management, scarcity of land for development, lack of affordable housing, over-densification and more social segregation(ibid).

In addition, the existing plans have often been accommodated to a logic of economic profitability linked to the real estate business and land speculation. This profit-oriented logic materializes through an ex-post accommodation of the instruments, thus regularizing unregulated development and growth, incorporating modifications to the urban areas in an opportunistic manner. The urban limit is therefore not a strong mechanism to contain urban expansion, but rather an opportunistic manner to update the actual development of the urban area (Vicuña del Río, 2013).

The hierarchical arrangement of planning instruments described above fails to incorporate a holistic perspective of the territory. During the last decade, the government has therefore strengthened the inter-sectoral collaboration and has developed policies and regulations that may pave the way for a more integral management of the territory. Instruments such as the Regional Territorial Plan (PROT) (2011), Regional Urban Development Policy (2014), the Policy for Disaster and Risk Management (2016), Proposal for a National Policy on the Sustainable Management of Mountainous Areas (2017) and the National Rural Development Policy (in discussion since 2017), show the interest of the government in updating and strengthening the policy framework regarding land management.

The Regional Territorial Plans (*Plan Regional de Ordenamiento Territorial PROT)*, introduced in 2011, offer a possibility for increasing coherence between economic and spatial planning at regional level (OECD, 2013). The Organic Constitutional Law on Government and Regional Administration (N°19175) provides the regional governments (GORE) with clear responsibilities that are relevant for regional territorial planning, namely (Government of Chile, 1993; and Sub-Secretariat for Regional and Administrative Development, 2011):

- Establish policies and objectives for an integral and harmonic development of the human settlements system
- Participate in the coordination among national and municipal authorities responsible for provision and maintenance of infrastructure and services

- Promote and ensure protection, conservation and improvement of the environment in accordance with regional contexts and with relevant norms and regulations
- Promote and ensure the functioning of service delivery regarding transport
- Promote and ensure development of rural areas and isolated settlements, promote multi-sectoral action and provision of economic and social infrastructure
- Enact metropolitan, inter-municipal, municipal and sectional plans, upon approval by the regional council, in accordance with the norms stated in the General Law of Urbanism and Construction
- Approve metropolitan and inter-municipal land use plans proposed by the Regional Secretariat of the Ministry of Housing and Urbanism.

In line with these responsibilities, the respective GORE designs the PROT following the principles of socio-territorial cohesion, governability, diversity, territorial solidarity, subsidiarity, and complementarity (Sub-Secretariat for Regional and Administrative Development, 2011). In addition the PROT promotes inclusiveness, strategic orientation and people's participation (ibid.).

The PROT is developed based on the Regional Development Strategies, which are also under the responsibility of the GORE. In fact, the PROT is a spatial representation of the Regional Development Strategy, but so far it does not have a legally binding character. This is currently in discussion in congress, but a final decision is yet to be made.

In the year 2011, the Sub-Secretariat for Regional and Administrative Development elaborated also the Guidelines for Coastal Zoning and Planning, which provides the methodology for zoning in coastal areas of the country (Sub-Secretariat for Regional and Administrative Development (SUBDERE), 2011). Currently there are 14 regional Coastal Area Zones planned under this methodology, which as in the case of the PROT, do not have a legally binding character, with the exception of the areas designated as maritime concessions, where the provisions stipulated in the plan are de facto obligatory.

Additionally, the Urban Development Policy, proposes eight overarching objectives for urban areas of the country, namely, to ensure equitable access to urban services and infrastructure, reduce urban segregation, avoid the development of situations of urban segregation, reduce the housing deficit, establish a land use policy to promote social integration, promote the development and strengthening of communities, strengthen connectivity, security and universal accessibility (Ministry of Housing and Urbanism, 2014).

In line with this new scenario, were relevant institutions are willing to support a shift towards a modernized normative framework, and towards the definition of new directives regarding spatial planning, seems to be an appropriate moment for the country to move closer to the development of a National Spatial Planning Policy, which has actually been in discussion for the last 10 years.

In fact, given the diversity of instruments described above, it is evident that the development of a National Spatial Planning Policy is urgent and essential for building up a framework that is capable of articulating the wide spectrum of –sometimes incoherent- planning instruments and of breaching the gap between rural and urban areas. With more than 35 legal instruments (laws, decrees, norms, etc.) having an influence on how the territory is planned and used, the design of a national spatial planning policy would offer an opportunity for the country to establish an overarching frame articulated with processes of decentralization, inter-sectoral coordination and promote sustainable use of the territory at the national and sub-national level.

After a long time of discussion, the national spatial planning policy was expected to be passed towards the end of 2017. On 11th of December 2017 the Committee of Ministers approved the proposed policy, which is now with the Ministry Secretary General of the Presidency, which shall now formulate the last observations before being passed and enacted by the president (Minstry of Social Development , 2017). This brings considerable hope to planning experts of the country, but it may not be sufficient to solve the problem of multiplicity and overlapping instruments as it may be again a case of top-down policy making, rather than bottom up or participatory dialogue. Considering that only two thirds of the municipalities have valid municipal land use plans, it seems more appropriate to work on an effective strategy for empowering local governments, rather than adding yet a new instrument from the national level. On the other hand, if the national spatial planning policy serves the purpose of kick starting a long-term reform of this sector, then it is only appropriate to see it as the “new hope” for the country.

6 Evaluation based on Land Governance Indicators

The following sections will follow the structure presented in chapter 4.4, particularly in Table 4-2, for the presentation of results of the in-depth analysis based on the integrated frameworks for assessing land governance.

6.1 Safeguards and resolution of disputes regarding land tenure

Property rights in Chile, including those affecting indigenous lands, are regulated and protected by the constitution, the civil code and all additional regulatory instruments as mentioned in sections 5.2.2 to 5.2.6. Mechanisms for land rights recognition, for instance first-time registration, and conflict resolution, for example in case of infringement on tenure rights of others, are in place and the authorities have the means to implement legal protection of tenure rights (registry, regularization procedures, service for housing and urbanism, judicial system). The services provided by the land registry are affordable and accessible across the country. Fees are transparent and informal payments are discouraged. Access to justice is guaranteed to all members of the society and women and men enjoy officially the same rights to land.

Legal assistance is provided to all citizens, including, poor and vulnerable groups through governmental and non-governmental organizations (see section 5.2.4), and forced evictions are normally carried out in accordance with obligations under national and international law and principles. Although cases have been reported where these standards have not been observed completely and where, for example, forced evictions have been carried out without proper notification (Jara, et al., 2016). Additionally, new problems are surfacing nowadays. Currently, a considerable challenge is to cope with the increasing numbers of migration from other Latin American countries, which pose additional difficulties to guaranteeing protection of land tenure rights, since a large number of migrants settle under conditions of informality (including disaster prone areas), due to lack of financial resources or long-term housing and employment opportunities (Martínez & Labbé, 2017).

As mentioned in section 5.3.2, the high proportion of missing or outdated municipal land use plans has negative consequences for land management across the country. Under these conditions, transparency standards, for example regarding land use and rural-urban conversion, can only be observed in a very limited manner.

Due to the absence of land management instruments such as land consolidation and land readjustment, expropriation procedures are used in cases where land is required for projects of public interest, for example development of infrastructure.

The procedure is regulated by the Decree N°2.186 of 1978 (Organic Law of the Procedure for Expropriations), which also provides the details regarding fair compensation for the parties affected. Land valuations for tax purposes are based on clearly regulated principles, which are applied uniformly, and are publicly accessible.

Concessions on public land are under the responsibility of the Ministry of National Assets and may be granted for profit and non-profit oriented purposes or projects. The procedures are clearly regulated and accessible.

Regarding public participation, the “Policy for civil participation within the frame of shared responsibilities” (Government of Chile, 2011) was presented following the promulgation of the law N°20.500 about “Associations and civil participation in the public administration”, which institutionalizes and regulates civic participation in the country. The policy has three main work streams, namely: 1. Information and public consultation, 2. Civil monitoring and controlling, and 3. Strengthening of civil society (ibid.).

The report on status of civil participation prepared by the National Council for Civil Participation and Strengthening of the Civil Society (Consejo Nacional de Participación Ciudadana y Fortaleciemiento de la Sociedad Civil, 2017) mentions that, a high number of municipalities are yet to implement the dispositions stipulated in the law 20.500, particularly regarding the establishment of the concrete mechanisms for strengthening civil participation, which, according to the members of the council, is linked to lacking financial and technical capacities at the municipal level. In addition, the participation mechanisms as defined by the law, don’t have a legally binding character, which means that consideration and implementation of recommendations from the civil society are not compulsory. This makes these mechanisms less effective and less attractive for members of the civil society (ibid.).

The existence of boundary conflicts particularly in rural areas, is not surprising considering the inexistence of a comprehensive cadaster or compulsory geo-referenced boundary demarcation, which in reality leads to lack of tenure security and proliferation of conflicts. Article 78 of the legal ordinance for the land register (1857), only specifies that the “name” and “boundaries” of the parcel shall be registered, which may lead to differences and conflicting opinions particularly in the case of old titles. Article 842 of the Civil Code indicates that every owner has the right that all boundaries of his/her property be demarcated. Nevertheless, georeferenced boundary demarcation is until now not a prerequisite for land registration, which means that the level of certainty regarding location parcel boundaries is very low in most parts of the country (Gutierrez Gonzalez, 2013).

On the other hand, the State provides the means for resolving disputes over tenure as well as the right to appeal. In 2016 out of 638.000 criminal cases, only 60 were related to boundary conflicts, 56 of which were resolved within the same year (INE, 2017). In addition, out of approx. 2.2 million civil cases filed in the same year, approx. 14.000 were related to real estates, from which around 80% had to do with mortgage claims filed by banks and around the same percentage were solved within the same year.

In other words, although a comprehensive cadaster does not exist and georeferenced boundary demarcation is not a requirement for land registration, the number of conflicts is manageable. This has to do with the high quality work performed by the land registry for already over 160 years, during which a high number of modernization measures have been introduced, including a progressing digitalization of the records, in order to increasingly improve the performance of the services (Rojas Garcia, 2017).

The most complex and long lasting land conflict in the country is the one affecting indigenous people and their claims for restitution of ancestral lands. As described in section 5.2.1, the evolution of the land tenure system during the last centuries has been disadvantageous for indigenous ethnic groups across the country. This conflict has escalated in the last years and has reached high levels of violence. From August 2016 to August 2017, the Institute "*Libertad y Desarrollo*" observed an increase of 379 % in the number of violent incidents concentrated in the IX Region, in the southern part of the country. Although this escalation of violence is not directly related to the restitution claims for ancestral lands, it is often the center of attention in the media as most of these acts of violence are perpetrated by radicalized groups which have political motivations.

Although many measures have been undertaken by the State to solve this longstanding conflict and responsible institutions have been able to provide solution to a large number of claims, the struggle for land restitution and stronger as well as meaningful political participation is yet to be solved.

6.2 Management and administration of public land

As indicated in section 5.2.2, 32% of the territory is classified as public land, from which approximately 59% is under the national system of protected areas, which comprises categories such as national parks, national reserves, natural monuments, among others. The responsibility for management of public land is unambiguously assigned to the Ministry of National Assets, which is in charge of administering public land, based on national social, environmental and economic

objectives. The cadastre of state-owned real estates provides an accessible georeferenced inventory of all plots and buildings under this category and covers the entire country (Ministry of Public Assets, 2017). In addition, the ministry is responsible for implementing legal procedures such as allocation of state-owned land through short-, mid- and long-term (up to 50 years), profit and non-profit oriented concessions, with exception of mining concessions which are responsibility of the Ministry of Mining (Government of Chile, 1982). This is an instrument which is consistently used by the government to promote development in certain designated areas of the country, for example for tourism and other economic activities.

Land concessions are allocated through procedures that are open, clear, transparent and including consultation of affected people in accordance with international standards. The plots that are currently available for land concessions are widely advertised and the procedures for applying are simple and accessible to domestic or foreign investors (Ministry of National Assets, 2017). Concessions are monitored and the associated fees are collected in an effective manner.

Furthermore, the Ministry of National Assets is responsible for regularization of informal properties in specific cases where formalization of ownership based on other legal procedures is not possible, particularly in cases of long standing irregular occupation of properties (Ministry of Public Assets, 2017). This procedure will be explained with more detail in section 6.4.

The mandate of the Ministry of National Assets includes also leading the Council of Ministers in charge of managing the national spatial data infrastructure (NSDI), which is based on the Decree N°28 of 2006 that creates the Nacional System for Coordination of Territorial Information (Ministry of National Assets, 2006)

The National Policy on Geospatial Information (Government of Chile, 2014) defined four main work-streams, namely, generation of geospatial information, access and use of this information, interoperability of data and systems, and institutional framework. Currently the online platform of the national spatial data infrastructure (IDE) provides access to a catalogue containing geo-datasets organized in 20 categories, including for example agriculture, infrastructure, flora and fauna, water bodies, climate and economy, among others (Ministry of National Assets, 2017). The platform is interactive and easy to use and provides access to a vast amount of georeferenced information, which is constantly being enhanced, updated or expanded.

Expropriation in public interest, particularly for construction and expansion or improvement of infrastructure, remains to be the main instrument used for land

acquisition for public purposes. In fact, in the last 10 years, approximately 20.000 plots have been expropriated through the law decree N°2.186 of 1978 “Organic Law on the Procedure for Expropriation” (Government of Chile, 2014). Currently this law is undergoing a revision process with the main goals of strengthening the protection of land rights of the affected population, establishment of more transparent documentation procedures for negotiations between parties (e.g. regarding compensation), accelerating the execution of the expropriation procedure and reducing costs for the affected owners (ibid.). Compensation amounts are calculated on the basis of official land valuation procedures and negotiated between the parties. Grievance mechanisms are available, widely advertised and accessible to all affected parties.

Given the absence of land management instruments such as land readjustment or land consolidation, expropriation will remain to be the main instrument for land acquisition for public purposes in the future.

6.3 Indigenous peoples and land restitution

As mentioned in section 5.2.3, the indigenous law regulates tenure rights on indigenous land and lays the legal basis for the operation of the institutions responsible for ensuring and promoting wellbeing of the indigenous population. Although a broad spectrum of instruments for supporting indigenous peoples exist (including those for settlement of land disputes), a number of long standing conflicts are yet to be solved, particularly regarding participation, consultation and free prior informed consent. The lack of political participation (e.g. in drafting new policies and laws) has been a major source of conflict between non-governmental indigenous institutions and the government. In addition, according to the report on the status of consultation of indigenous people within the frame of environmental impact assessments there is a need for strengthening information and advisory efforts for indigenous people, who often lack knowledge and capacities to assess the results of these evaluations. This would certainly make consultation processes more meaningful (Carcelén & Mir, 2014).

Since 2014, the government has carried out a consultative process, including representatives of all nine most important indigenous ethnic groups, which has led to the creation of a new institutional setting, including a Ministry of Indigenous Affairs, a National Council of Ethnic Groups and a Council for each of the nine most important indigenous ethnic groups of the country. In January 2016, the President sent proposals for the respective laws to the congress (Government of Chile, 2016) and the one creating the new Ministry was recently approved by the parliament on 3rd of October 2017 (Government of Chile, 2017) and has been sent to the Senate

with “high urgency” for its final approval. This new institutional setting will be a major breakthrough for the indigenous ethnic groups and is expected to bring indigenous participation in policy and legal processes to a completely different level, making participation and consultation processes a lot more meaningful.

Although this is indeed a very positive development, there is still a major problem in the institutional and political setting regarding meaningful consultation and participation of indigenous peoples in decision-making processes in Chile, namely the lack of recognition of the indigenous ethnic groups and their rights in the country’s constitution. This has been an aspect that has been in discussion for the last decades and has only recently gained momentum through a consultation process which was initiated under the leadership of the Ministry of Social Development and following the recommendations of a technical report, which was presented in May 2017 by the Ministry (Ministry of Social Development, 2017). The report includes a long list of recommendations for intensifying participation and effectively recognizing the diverse indigenous rights at a constitutional level.

Land restitution in Chile is an issue which is discussed primarily in the context of the recognition of ancestral rights of indigenous ethnic groups. As mentioned in section 5.2.3, the National Corporation for Indigenous Development (CONADI) is responsible for allocation of subsidies to indigenous individuals and communities for purchasing land. CONADI’s mandate includes also promoting the recognition and respect to the ethnic groups, to their communities and the people that compose them, promoting the empowerment of indigenous women, protecting indigenous people and their communities particularly in conflicts about land or water rights, protecting the indigenous lands and access to land for indigenous people and protecting indigenous rights (Government of Chile, 2010 (a)).

Since the establishment of CONADI, over 225,000 ha have been transferred to indigenous communities across the country, primarily through purchase of private land by the Lands and Water Fund, as part of the land restitution program. Critics say that the Fund is not effective enough and may even promote the intensification or appearance of land conflicts, particularly due to the deficient selection criteria for potential beneficiaries and misuse of the official procedures (Zaror & Lepín, 2016).

In addition, others criticize that the progress of the restitution programme is insufficient, which often leads to protests and even escalation of conflicts at the local level. The level of violence has increased considerably in the last years. According to the institute *Libertad y Desarrollo* (2017), the level of violence increased a 378% from august 2016 to August 2017 in the IX Region of the country, where most of the cases of violence take place. This shows the discontent and

frustration suffered by some of the indigenous people, who in many cases have fulfilled all requirements for benefiting from the land restitution program, but which has not materialized due to delays and inefficiencies of the system (Infobae, 2017).

Since land restitution is based on purchase and transferring of land rights at market prices, it is possible to expect that progress will continue to be slow and associated costs may increase considerably in the future, due to rising land prices. In order to accelerate the process it may be necessary to consider other land management instruments such as land consolidation procedures that allow for reorganizing property structures to accommodate different interests in a more systematic manner.

6.4 Informal land tenure

The Ministry of National Assets is responsible for the regularization of small-size real estates that are used or occupied, but which have not been duly registered in the corresponding land registry (*Conservador de Bienes Raíces*). The Ministry has the authority to recognize and adjudicate land rights to users in accordance with the conditions stipulated by the decree N°2695 “Norms for regularization and adjudication of small size real estates” (Government of Chile, 1979). This decree applies to rural and urban properties of a value below 800 UTM[6] and 380 UTM respectively.

To request the regularization of a property, the applicant shall fulfil the following prerequisites: 1. Continuous, exclusive and uncontested possession of the real estate, without violence or unlawful practices, for a minimum period of 5 years, and 2. Certify that there are no pending law suits aiming at clarification of dominion or possession of the same property initiated prior to the date of submission of the application. The fees are calculated in a differentiated manner considering the financial means of the applicant and the value of the property. Subsidies are available for cases where the applicant can’t afford the costs of the process (Government of Chile, 1979).

The Law on regularization of ownership titles and urbanization of irregular settlements (N°16741) provides the norms for recognition and registration of parcels in newly developed urban and rural areas, for example, in cases where new housing and infrastructure projects are constructed in areas which have not been

[6] UTM = Monthly Tax Unit (*Unidad Tributaria Mensual*) which is a financial unit which was created for taxation purposes in 1974 and is constantly updated to reflect the current inflation rate. The value of one UTM as of November 2017 is 46.692 Pesos (approx.. 63EUR).

approved as formally urbanized yet, in other words, where the basic infrastructure and services are yet to be provided and approved by the competent authorities (Government of Chile, 1991). Besides formalization of these urban and rural settlements, the regularization procedure allows for intermediate recognition steps, with specific timings and requirements, allowing the owners to apply to financial support programs from the Ministry of Housing and Urbanism to progressively comply with the legal and technical requirements of urbanized settlements. This is particularly beneficial for regularization of informal settlements as described in chapter 5.2.4.

In order to accelerate the process of recognition and formalization of these settlements, the law N°20812 of 2015, which modifies the law N°20234 of 2008 and builds on the above-mentioned law N°16741, establishes the procedure for regularization of informal parcels and specifies a simplified procedure aimed particularly at poor and vulnerable people living in informal settlements (Government of Chile, 2015).

As described in chapter 5.2.4, the NGO *Un Techo para Chile*, which commenced operations in 1997 (Un Techo para Chile, 2016), provides comprehensive assistance to dwellers of informal settlements across the country, through a participatory and inclusive approach that promotes social aspects such as community organization and leadership, education and training, job creation, employability and entrepreneurship, as well as technical and financial support for recognition, upgrading, re-settlement and formalization.

As already mentioned, in cases where re-settlement is required, for example in cases where settlements have been established in disaster prone areas, forced evictions are normally carried out in accordance with obligations under national and international law and principles, although cases have been reported where evictions have been carried out without proper notification (Jara et al., 2016). In addition, the current challenge of coping with the increasing numbers of immigration from other Latin American countries poses additional difficulties to recognition and formalization of land rights, particularly in urban areas (Martínez & Labbé, 2017).

The Law on co-ownership of real estate N°19537 of 1997 provides the basis for recognition of joint ownership in cases such as apartment buildings, condominiums, shops, offices, warehouses, parking lots, and industrial premises, among others. In addition, it specifies the requirements for co-ownership, regarding for instance the establishment of a board, an administrative committee, a statute and a dedicated bank account (Government of Chile, 1997).

In summary, although informality is present in many parts of the country, land tenure regularization procedures are available and are being implemented. On the other hand, stronger long-term oriented measures are still needed to prevent further proliferation of informality.

6.5 Records of land tenure rights

The current legal framework recognizes and protects individual and communal rights in urban and rural areas, including indigenous lands. In case of informal tenure regimes, the law specifies the procedures for regularization (incl. the case of long-term unchallenged possession), which can be subsidized in order to facilitate and encourage its implementation. The law also provides the procedures for individualization of collective property. Specific restrictions apply to indigenous collective property as specified by the indigenous law. All procedures are affordable, transparent and accessible for all citizens. Women rights are registered and recognized in practice and are equal to those of men.

The absence of a nationwide cadastre system is one of the most evident deficiencies of the land management approach in Chile. Parcel based geo-data is held by different institutions and for different purposes, for example by the Ministry of Nacional Assets for management of state land, the national forestry corporation (CONAF) for management of protected areas, the Internal Taxation Service for tax collection purposes (Hendricks et al., 2015), and the Ministry of Economy, which administers parcel data from over 70 municipalities (Ministry of National Assets, 2015) with the purpose of accelerating the procedures for the establishment of new businesses, and the National Commission for Indigenous Development (CONADI) which administers the data on indigenous community lands through the Lands and Water Fund (CONADI, 2018).

With information on approx. 7.5 million parcels (SII, 2017), the database administered by the Internal Taxation Service (*Servicio de Impuestos Internos*) is currently the one with the highest coverage, but often contains primarily alphanumeric information or, in those cases where cartographic information is available, this is commonly not georeferenced (Hendricks et al., 2015). The information held by the Ministry of Economy, contains data on over 1.3 million parcels and is available for download from the Geoportal of the spatial data infrastructure, free of charge, but with a very limited set of attributes. The same applies to the information on state land and indigenous communities, among many other data sets. Although the Geoportal Chile is expanding and considerable efforts are being devoted to its mainstreaming among public institutions, the system

remains to be fragmented and the amount of information (i.e. attributes) is still unsatisfactory.

The level of transparency of the land sector (e.g. land market) is therefore still low. Although one can argue that security of tenure is provided primarily by the land registries (*conservadores*), which record all relevant encumbrances and restrictions, and which are functional, efficient, accessible, searchable, financially sustainable and effective; the lack of a cadastre system is clearly a major holdback for transparent and efficient markets, as well as for planning and development in all sectors of the government.

As discussed in section 5.2.5, there is still a considerable proportion of properties in irregular status, both in rural as well as urban areas. Considerable efforts for solving this problem are being undertaken and the law provides the procedures for regularization under different circumstances (individual, communal, informal settlements, etc.), with specific provisions for indigenous lands as specified by the indigenous law. Nevertheless, the procedures are often applied in a discretionary manner, frequently due to lack of interest or will from the side of the owners (leading to informality) or lack of enforcement from the side of the government. This leads to a substantial insecurity of land tenure, which is not nearly as prominent in the political agenda as it should actually be. As most of the efforts to expand on the availability of land information are executed in a uncoordinated manner, there is little hope for the establishment of a nationwide cadastre system, let alone the need for it to be linked and communicate with the land registry in order to keep all data synchronized and up to date.

6.6 Land markets and land investments

The rural land market in Chile is characterized by a low proportion of leasehold arrangements and, as mentioned in section 5.2.5, a significant number of irregular properties, which applies to approx. 23% of small farmers (family farmers) and around 9% of the total cultivated area, and which leads to a lack of development of the land rental market in the country (OECD, 2008). According to the Agricultural Census of 1997, only a 5% of the farmers rented the parcels they cultivated, which represented a 3,5% of the total cultivated area. The percentage of sharecroppers was even lower with approx. 2% of the small farmers (INE, 1998).

On the other hand, there are specific areas of the country that show different dynamics among family farmers. According to a study by RIMISP (2009), commissioned by the Office for Research and Agrarian Policies of the Ministry of Agriculture, the rural land market in two specific regions of the country (VI and VIII)

is characterized by a high proportion of leasehold arrangements, which represents over 60% of the land transactions, and only 20% of the transactions are conducted through purchase. The study mentions that most of the small farmers rent land parcels of similar size every year in the surrounding areas, usually within the limits of their respective municipalities and usually from relatives or friends, who they know well and trust. Among the factors which influence the rent and purchase prices per hectare, the one that has the main impact is the availability of water for irrigation (Silva Ramirez, 2010).

The availability of information on the modalities for accessing land is limited. As cited above, the last official statistics for rural areas (renting, purchase, share-cropping) are those provided by the agricultural census of 1997. The agricultural census of 2007 didn't make specific reference to this information and the census that was planned for 2017 has been postponed until 2019 due to logistical and financial problems (Aravena, 2016).

However, the processes for accessing land through rental and purchase are clearly defined, accessible, predictable and affordable. Administrative procedures are simple and do not discourage participation of certain groups of the population. The same applies to the procedures for accessing public land through short-, mid- and long-term concessions (leasehold of up to 50 years) for profit and non-profit oriented projects or activities (Ministry of National Assets, 2017; Ministry of National Assets, 2017).

Land use conversion is often subject to conflict of interests, for the benefit of influential groups (El Mercurio, 2015). There is currently no official system for dissemination of this information and, since there is also no comprehensive cadastral system available beyond the data held by the Ministry of Nacional Assets (public land) and the Internal Taxation Service (private properties) (Hendricks et al., 2015), the general level of transparency of the market is low.

With regard to indigenous lands on the other hand, the Public Registry of Indigenous Lands which is under the responsibility of the National Commission for Indigenous Development, provides information on the current lands that are classified as indigenous. The Indigenous Territorial Information System, which has been developed in accordance with the Law N°20.285 on Transparency and Access to Information (CONADI, 2017), provides geographic information on the parcels that are purchased and adjudicated to indigenous communities within the frame of the land restitution processes as explained in section 5.2.3.

The Law N° 20848 of 2015 establishes the framework for foreign direct investment (FDI) and creates the corresponding institutional framework (Ministry of Finance,

2015), including an inter-ministerial steering committee and the Foreign Investment Promotion Agency as a decentralized public service reporting to the President of the Republic through the Ministry of Economy, Development and Tourism.

Investment policy in Chile is based on the principle of transparency and non-discrimination towards foreign investors. FDI reached a peak of USD 27 billion in 2012. Since then, this amount has decreased to USD 15,9 billion in 2015 and USD 11,3 billion in 2016 (Export Enterprises S.A., 2018). Around half of this volume is invested in the mining sector (ibid.).

According to the World Investment Report 2017 (UNCTAD, 2017), Chile is the third most attractive country for FDI in South America, after Brazil and Colombia. The Land Matrix, on the other hand, shows an insignificant area affected by FDI on land, referring to data on only seven deals with a total area of approx. 9.000 ha, from which more than half is dedicated to nature conservation projects (Land Matrix Initiative, 2018).

The Ministry of National Assets is responsible for promotion of investment on state land. As mentioned in previous sections there are three main procedures for granting concessions on public land, namely, profit oriented fee dependant (for up to 50 years), short term non-profit free of charge (up to 5 years) and long-term non-profit free of charge land concessions (up to 50 years) (Ministry of National Assets, 2017). Profit oriented concessions are granted through open tendering procedures, which are publicly advertised and widely accessible. Since 2014, a total of 152 long-term fee-dependant concessions have been established for the production of renewable energies (solar and wind) with a total area of approx. 36 thousand ha which allow for producing around 7.000 Megawatts (Ministry of National Assets, 2017). In addition, during the same period of time, 484 state-owned properties with a total area of over 50 thousand ha were transferred to indigenous communities or individuals (ibid.)

Most of the productive forestry activities are performed by private owners, along with an insignificant number of forest concessions, mostly affecting native forests on public land (Leyton, 2009). Although the profits achieved by private companies managing private forests are considerable, forestry activities have so far hardly contributed to poverty reduction (ibid.).

As mentioned in section 5.2.3 in the last twenty years over 225,000 ha have been transferred to indigenous communities across the country, primarily private land through purchase, as part of the land restitution program. Currently, over 50,000 individual indigenous farmers practice agriculture on a total area of approximately 1.2 million ha across the entire country, but primarily in the southern region, with

the *Mapuche* indigenous group being by far the most important group accounting for 90% of the farmers working on over 70% of the area (Apey et al., 2011).

The Agricultural Development Institute, established in 1962 under the Ministry of Agriculture, offers financial and technical assistance to small scale agricultural producers and farmers - including indigenous population, which represent approx. 37% of the users of the promotion instruments – with the aim of promoting economic, social and technological development by strengthening their entrepreneurial capacities and their integration in the national rural development strategies while promoting the sustainable use of productive resources (INDAP, 2018).

In 2016, INDAP reported execution of an annual budget of approx. 350 million EUR through the various assistance instruments offered across the country (Ministry of Agriculture, 2016). With a focus on small scale farmers, women, youth and indigenous population, the Institute is certainly a cornerstone in the government's approach to promotion of investment and rural development, which is primarily led by a market oriented policy.

Safeguards to protect legitimate tenure rights are defined and executed in accordance with international standards, for instance the Agreement N°169 of the International Labour Organisation, which was ratified by Chile in the year 2008 (Ministry of Social Development, 2018), and through the Environmental Impact Evaluation System (SEIA), which is based on Law N° 20.417 of 2010, that modified the Law N° 19.300 about General Framework for Environmental Management. The main modifications introduced in 2010 were the creation of the Ministry of Environment and the Environmental Evaluation Service, which has the mandate of managing the SEIA (Environmental Evaluation Service, 2018) and implementing safeguards such as civil participation, grievance mechanisms and free prior informed consent, particularly in the case that indigenous people are affected by any project.

Therefore, it can be observed that land investments are carried out under the principles of transparency and accountability, nevertheless, the strong market orientation of the investment policy (which is also evident in other sub-areas of land management) is an obstacle for achieving a balanced economic development across the territory. As a consequence, land investments often benefit a small proportion of the population.

6.7 Land valuation and taxation

In Chile, robust systems are used for fair and timely valuation of land through generally known approaches such as sales comparison, capital asset pricing, income, and cost approach (Ministry of National Assets, 2007; Ministry for Housing and Urbanism, 2007; SII, 2018). There are clear processes and the roles of the institutions involved are publicly accessible. These valuation approaches are the basis, for example, for calculation of compensation in case of expropriation and tax collection through the Internal Taxation Service (SII). National standards for valuation for governmental, commercial and other purposes are available and publicized and corruption in valuation is prevented through transparency of information and methodologies.

Official land values are recorded by the SII; since 2017 this information is accessible through an interactive and georeferenced platform available at the website of the service (SII, 2017). As mentioned previously, with data on approx. 7,5 million parcels, the cadastral database of the Internal Taxation Service is the one with the highest coverage.

The State has the power and tools to raise revenue through taxation related to land tenure and to channel these resources to contribute to the achievement of broader social, economic and environmental objectives at the different administrative levels.

Taxation is, however, not used as an instrument of land management to prevent undesirable impacts from speculation and concentration of ownership or other tenure rights. On the other hand, policies, laws and organisational frameworks for regulation regarding taxation of tenure rights are in place, including the right to appeal against official valuations, with exception of a comprehensive cadastre, as already mentioned in previous sections. Although the dataset of the Internal Taxation Service (SII) is the one with the highest coverage, this remains to be a key aspect for improvement. Although taxes are administered in a transparent manner, the existence of a comprehensive cadastre would boost efficiency and effectiveness considerably.

Aiming to increase transparency of the land market, the SII launched in 2017 an interactive online platform for disseminating land values and characteristics of real estates (SII, 2017). The platform is publicly accessible and combines georeferenced boundary information with land values and current tax rates and allows users to request re-assessment of land values. According to information provided by SII, the platform will continuously increase its coverage, including datasets from remote regions of the country, and will incorporate more attributes.

Land values for taxation purposes are recalculated every 4 years to update taxable amounts. The last update of January of 2018 showed an average value increase of 35% on non-agricultural properties (ca. 6.6 million parcels across the country) (SII, 2018). This information is publicly available and can be even retrieved through a dedicated App for smartphones and tablets. All these measures contribute to increasing transparency and reducing possibilities for unlawful practices and corruption.

6.8 Land consolidation and other readjustment approaches

Since land consolidation as an official instrument, just like land readjustment, does not exist in Chile (Obreque, 2005), the most used instrument for land acquisition, for example, for infrastructure development projects, is expropriation. As mentioned in section 6.1, procedures for carrying out expropriations are transparent and bound to provision of fair compensation. Nevertheless, even considering that the constitution refers to the responsibility vested in the government for securing acquired property rights (Collins von Hausen & Sabaj, 2008) so far no other instrument has been used for land acquisition within the frame of land development processes.

Land consolidation and readjustment are instruments which would contribute enormously to strengthening land governance in Chile. Since the current legislation doesn't include any provisions in this regard, it would certainly be appropriate to conduct further research in this area in order to determine the possibilities for developing a land consolidation and readjustment approach which serves the current and future needs of the land sector, particularly regarding land development and restitution of indigenous lands.

6.9 Redistributive land reforms

2017 marked the 50th anniversary of the Land Reform process in Chile. Redistributive land reforms were implemented between the years 1967 and 1973. In fact, as explained in section 5.2.1.6, the first agrarian reform commenced officially in 1962, but didn't have any significant effects. The most significant legal instruments were the law of Land Reform (N°16.640) and the law of Farmer Syndicates (N°16.625), both enacted in 1967, which created the required enabling environment for meaningful change (Gómez Echeñique, 2017). After the year 1973, however, during the period of dictatorship, the government implemented a counter-reform process, which aimed at the establishment of a free market system, which was beneficial to only a small proportion of the population, and especially not for

the most vulnerable groups, like small scale farmers and indigenous population (Bengoa Cabello, 2017).

During the implementation of the law of agrarian reform, 5.809 rural properties were expropriated accounting for 720.000 ha of irrigated land and 1.370.000 ha of rain-fed agricultural land, most of which occurred between 1970 and 1973 (Gómez Echeñique, 2017). From a structural perspective, this period is characterized by an escalation of social conflicts and the abolition of the *Latifundio*, which was the only irreversible change that took place and which remains until today (ibid.).

As in other countries in Latin America, the objectives of the agrarian reform where only partially achieved and there are certainly still land tenure and distribution issues which require attention, particularly regarding access to land (and water) by vulnerable groups in rural areas like the youth, women, and indigenous people (Zeran Chelech, 2017). Right now the political and institutional context is strongly based on a market economy, which doesn't provide the conditions for tackling these issues in the short term.

6.10 Expropriation and compensation

As argued before, due to the absence of land management instruments such as land consolidation and land readjustment, expropriation procedures are used in most cases where land is required for projects of public interest, for example for development of infrastructure. The expropriation procedure is regulated by the Decree N°2.186 of 1978 (Organic Law of the Procedure for Expropriations), which provides also details regarding fair compensation for the affected parties. Land valuation is based on clearly regulated principles, which are applied consistently, and are publicly accessible.

In the last 10 years, approximately 20.000 plots have been expropriated through the law decree N°2.186 (Government of Chile, 2014). Currently this law is undergoing a revision process with the main goals of strengthening the protection of land rights of the affected population, establishment of more transparent documentation procedures for negotiations between parties (e.g. regarding compensation), accelerating the execution of the expropriation procedure and reducing costs for the affected owners (ibid.). Compensation amounts are calculated on the basis of official land valuation procedures and negotiated between the parties. Grievance mechanisms are available, widely advertised and accessible to all affected parties.

Although expropriation in combination with resettlement, for example, in cases where settlements are located in disaster prone areas, is normally implemented in

the same way described above, there have been controversial instances, for example a case in the north of the country, where affected people claimed to be under pressure by the official authority, the Urbanism and Housing Service, to accept the offer of relocation and monetary compensation under unfair conditions and ambiguous justification from the side of the authority (El Ciudadano, 2017). This kind of issue normally quickly attracts wide coverage by the media and authorities and often leads to official investigations.

In Latin America, an additional field of application of expropriation procedures is within the frame of land restitution in favour of indigenous peoples. This is an area were intense juridical discussions take place, particularly regarding the justification of “pubic interest”, considering the primacy of restitution purposes from an international human rights perspective, in the case that voluntary sale of private land is not an feasible option (Núñez Poblete, 2017). In Chile, in comparison to some other countries which have also ratified the ILO Agreement N°169 (e.g. Argentina, Brazil, Bolivia, Paraguay), there is no special provision which would allow expropriation for land restitution purposes. This is why along with voluntary transfer of property the most used approaches for this purpose are purchase of private land and transfer of state land.

6.11 Regulated spatial planning

As mentioned in section 5.3.2, regulated spatial planning is conducted on the basis of a hierarchical arrangement of instruments, which are only partially implemented in reality. For instance, one third (110) of all municipalities in the country do not have a valid municipal land use plan and 60% of the currently valid land use plans of municipalities with more than 50.000 inhabitants are over 10 years old, with an average of 17.3 years (Chilean Chamber of Construction, 2017). This implies that the system is largely obsolete and provides an enabling environment for land use conflicts, disputes among citizens and construction companies, uncoordinated urban management, scarcity of land for development, lack of affordable housing, over-densification and more social segregation, among others (ibid).

In addition, the existing plans have often been accommodated to the logic of economic profitability linked to the real estate business and land speculation. This profit-oriented logic materializes through an ex-post accommodation of the plans, thus regularizing unregulated development which has already been constructed, incorporating modifications to the urban areas in an opportunistic manner. The urban limit is also not a strong mechanism to contain urban expansion, but rather an opportunity to update the actual development of the areas which have “outgrown” the legally specified urban zone (Vicuña del Río, 2013).

Civil participation in the planning processes is a further concern. According to Herrmann and van Klaveren (2016), based on statistics provided by official household surveys administered in the years 2000, 2009 and 2013, it is possible to observe a 12-14% decline of civil participation in social organizations in urban and rural areas. With regard specifically to organizations which are relevant to municipal planning, namely neighborhood and communal associations the level of participation is extremely low. Citizens associations for opposing or requesting changes to infrastructure projects do exist, but data of the year 2013 also shows a low participation rate (approx. 9.3%). According to the above mentioned authors, this may have to do with la number of reasons including lack of time (36%), lack of interest (30%), lack of information (12%), and low level of trust on social organizations (2%). With regard to urban planning in particular, the same authors argue that according to data of the year 2013, 47% of the interviewees prefer to call for the engagement of a group of experts and 40% prefer to call for a referendum for updating the municipal land use plan. In the case of municipal transport planning, 56% of the interviewees prefer to engage a group of experts and 28% prefers to call for a referendum (ibid.). This means, that land use planning is being carried out to a large extent without consideration of the actual needs of the population.

With more than 35 legal instruments (laws, decrees, norms, etc.) having an influence on how the territory is planned and used, the design of a national spatial planning policy offers an opportunity for the country to establish an overarching frame articulated with processes of decentralization, inter-sectoral coordination and promote sustainable use of the territory at the national and sub-national level.

On 11th of December 2017 the Committee of Ministers approved the proposed policy, which is now with the Ministry Secretary General of the Presidency, which shall now formulate the last observations before being passed and enacted by the president (Minstry of Social Development , 2017).

This brings considerable hope to planning experts of the country, but it may not be sufficient to solve the problems at hand. Considering that only two thirds of the country has a valid municipal land use plan, it seems more appropriate to work on an effective strategy for empowering local governments, rather than adding yet a new instrument from the national level. On the other hand, the national spatial planning policy may be the starting point for a long-term reform of this sector.

6.12 Climate change and natural disasters

For practical and thematic affinity reasons, the VGGT sections on climate change and natural disasters will be handled together in this chapter.

Chile is a country which is often affected by natural disasters of all kinds, including flooding, earthquakes, landslides, tsunami, volcano eruptions, forest fires, etc. According to the United Nations Office for Disaster Risk Reduction (UNISDR), Chile is within the 10 countries of the world with the highest economic losses due to natural disasters in the last 20 years (Valdebenito, 2017).

The National Office of Emergency of the Ministry of Interior and Public Security (ONEMI) has the mandate for planning, coordinating and implementing activities aimed at preventing, mitigating, warning, response and recovery in the context of threats and emergencies, disasters and catastrophes (ONEMI, 2018). ONEMI is a technical institution, created in 1974, and is currently focused on strengthening its capacities for early warning and response along with the recovery measures for people who have been recently affected by natural disasters, in line with its National Strategic Plan for Disaster Risk Management 2015 – 2018 (ONEMI, 2016).

This plan is based on the Hyogo Framework for Action (HFA) 2005 – 2015, subscribed by Chile in 2005 (ONEMI, 2016) and includes the establishment of a Nacional Platform for Disaster Risk Reduction and the elaboration of a Nacional Policy for Disaster Risk Management (ibid.). In the year 2015, Chile also signed the Sendai Framework for Disaster Risk Reduction 2015 – 2030, which is the major agreement in this field in the context of the post-2015 Agenda. Affiliation to these agreements and development and implementation of related political and technical instruments at different administrative levels, show the commitment of the government to comply with international standards through national policy and action.

On the other hand, while in terms of land management both the policy as well as strategy papers concentrate on spatial and land use planning instruments, for example regional and municipal land use plans including disaster risk management provisions, there is no consistent explicit discussion regarding respect and protection of legitimate tenure rights, as it is for example in the context of environmental impact assessments for large infrastructure projects (SEA, 2014). In addition, the experience gathered through some of the most significant examples of involuntary relocation, for instance after the earthquake of 2010, or after the eruption of the Volcano "*Chaitén*" in 2008, show that there is still plenty of room for improvement in terms of planning and implementation of relocation processes (Tapia, 2015), particularly regarding participation and due consideration of social capital aspects (e.g. social relations among neighbors).

As described in previous sections, legal instruments for respecting and protecting land tenure rights exist, however, these are not explicitly addressed in relevant

policy or technical papers or discussions o in any of the available public communication platforms, such as the website of the ONEMI. In other words, the technical and legal means for dealing with land tenure issues in the context of natural disasters are in place, but are not explicitly addressed in communication strategies and information platforms, with exception of a comprehensive cadaster.

Once again it is necessary to mention the lack of a comprehensive cadaster as a limitation for effective and efficient operation of governmental actions, not only related to response and recovery, but also with design and implementation of preventive measures such as designation of temporary resettlement areas for displaced people.

6.13 Summary of results

The analysis based on internationally accepted indicators, namely VGGT, LGI and GLII, as well as the historical and thematic review regarding land tenure rights, and spatial and land use planning, allowed for producing a comprehensive outline of the current status of land governance throughout the main thematic areas within the land sector in Chile. A table providing a complete overview of the main results of the evaluation has been included in Annex 9.6.

While only the area of “Land Valuation” was evaluated as “satisfactory”, a number of them show a “partially satisfactory” status, most of which were categorized as “improving”, like for instance the areas regarding safeguards, informal tenure, taxation and expropriation, in which although relevant downsides were identified, there are clear indications of a tendency towards improvement.

Regarding informal land tenure, although the level of informality across the country is considerable and new challenges recently appeared, such as proliferation of informal housing situations (e.g. informal rental) linked to the increasing immigration from other Latin-American countries, the procedures for regularization are in place and strong efforts are being undertaken by governmental and non-governmental institutions for promoting land tenure regularization.

In the area of land taxation, although land tax is collected from registered parcels in an efficient manner, there is a clear scope for improvement regarding the coverage of the official geo-referenced parcel-based data and the number of registered properties.

Others were classified as insufficient, but also improving, for example, the area of regulated spatial planning, in which although the lack of land use plans across the country leads to lack of enforcement of land use classifications, which have a direct influence on the applicable bundle of rights, restrictions and responsibilities in a

certain area, the current focus of the government on the development of the National Policy for Spatial Planning shows a clear commitment to strengthening spatial planning instruments at all levels.

On the other side there are several aspects which were classified as “insufficient”, which show a clear trend towards stagnation. A very illustrative example is the situation of the conflicts related to indigenous lands and the related areas of “land restitution” and “Resolution of disputes over tenure rights and Conflicts regarding land tenure”. In this regard, although considerable efforts have been devoted to dealing with this issue, by different institutions and through various approaches, the issue remains to be unsolved and there is currently no comprehensive long-term solution in sight.

Another example is the area of “records of land tenure rights”, which is characterized by low coverage and insufficient quality of cadastral information across the country. There is currently no initiative to establish a comprehensive cadaster and, although the performance of the land registry is good, there is still a large number of properties in irregular status.

Other areas were classified as insufficient, but with a trend towards improvement, like the area of “land markets”. In this regard, while the availability of information on modalities for accessing land is limited, processes for accessing land through rental and purchase are clearly defined, accessible, predictable and affordable.

7 Conclusions and Recommendations

Land governance in Chile is strong in some aspects, but weak in many others. As discussed in previous sections, some of the major problems within the land sector have to do with aspects related to the records of land tenure rights, access to land in rural areas, indigenous land rights and ancestral claims for land restitution, and regulated spatial and land use planning. In order to overcome these problems, a strong commitment is necessary for developing the required capacities at all levels. The following sections will provide some conclusions and recommendations based on the main findings of the research.

7.1 Records of land tenure rights

The land registration system in Chile, provides registered property with a high level of security, which is an important factor for promoting investments and businesses, particularly in areas such as agriculture, forestry, infrastructure and housing. The system provides also a good basis for progressing in the achievement and monitoring of indicator 1.4.2 of the Sustainable Development Goals. The system has worked in a reliable manner for over 160 years with a consistent focus on legal certainty, accessibility and transparency. In addition, the establishment of the National Spatial Data Infrastructure is without doubt a major contribution to strengthening land governance in the country.

Nevertheless, there are currently a number of aspects which require intervention and reform, for instance, the change from the personal folio system to real folio indexation in land registration, along with increasing the level of digitalization of procedures as well as of information storage and management. All these aspects have already been recognized by the National Association of Registrars, who are constantly promoting modernization and improvement measures, but the changes will require long term efforts which are yet to materialize.

An empty spot in terms of modernization, however, is the link of the land registry with geo-referenced parcel-based information. Although the Internal Taxation Service (SII) manages a database which, in spite of its incompleteness, would allow for remarkable progress if a linkage between these two institutions would be established. So far geo-referenced parcel information has no relevance in the provision of land tenure security, which leads to problems which go beyond legal security itself. It affects spatial and land use planning and monitoring, an may lead to land conflicts and forced evictions.

A further problem remains, which has to do with the fact that registration is voluntary. As a result, a high number of parcels are unregistered, adding more

complexity to the problems and increasing the risk for conflict. The high number of properties which are based on an irregular status implies the existence of widespread land tenure insecurity, both in rural as well as urban areas. In fact, informal settlements are widespread and exist mainly in marginal areas of cities across the country. Although many efforts are being undertaken to improve the situation, proliferation of informal housing is advancing. This situation is aggravated by the increasing number of migrants from other Latin-American countries, many of which come to Chile and don't have access to housing opportunities other than those offered under conditions of informality.

In order to solve these problems, it would be recommendable to facilitate inter-institutional dialogue leading to the reform of the existing legislation on land registration, with the main objective of incorporating provisions on geo-referenced parcel-based information as a basic requirement for land registration and transactions. In a subsequent step, the parcel-based geodata managed by SII could be integrated with the information managed by the land registry, which would avoid having to create a cadastre index map from scratch. This could take place at first as a demonstrative manner in a few municipalities, to then upscale to the rest of the country if the results are satisfactory. Systematic land registration campaigns may be required in a number of municipalities to fill the gap of unregistered parcels. In order to accelerate the process, modern low-cost technologies could be used.

7.2 Access to land in rural areas

From a historical perspective, as in other countries in Latin America, the objectives of the agrarian reforms where only partially achieved and there are certainly still land tenure and distribution issues which require attention, particularly regarding access to land (and water) by vulnerable groups in rural areas like the youth, women, and indigenous people. Right now the political and institutional context in Chile is strongly based on a free market economy, which doesn't provide the best conditions for tackling issues of inequality, a situation that may be different in other neighbouring countries. It is therefore recommendable to implement target oriented measures for increasing equality regarding access to land in rural and urban areas.

Unfortunately, the availability of information on the modalities for accessing land is extremely limited. The last official statistics for rural areas (renting, purchase, share-cropping) are those provided by the agricultural census of 1997. The agricultural census of 2007 didn't make specific reference to this information and the census that was planned for 2017 was postponed until 2019. Needless to say, the realization of the next census is extremely urgent as it would allow for a better

understanding of the present situation and the basis for a more accurate and equitable planning.

In fact, a better information basis for decision making, through empirical research on all aspects related to land governance should be fostered. This includes primarily data at household level, allowing economic analysis of the relations between the various land tenure types and their impacts on local and national economy. The tenure system in Chile is composed of clearly defined tenure types, all which have a potential impact on the economy at different levels. The question is, what are the measures that could unleash or boost their potential benefits for different segments of the population and how should these measures be designed. These and other related questions should be subject of future research.

7.3 Indigenous land rights and land restitution

With respect to the conflicts regarding indigenous lands, there is currently no comprehensive solution in sight. The conflicts continue escalating and violent events often occur in many parts of the country. Meaningful participation of indigenous ethnic groups is improving but several claims regarding land restitution are still unsolved. So far, the government's approach in this matter has addressed part of these claims and a considerable number of lands have been allocated to indigenous people with the intention of solving this long-standing conflict. Nevertheless, land restitution is only part of the solution. A long term resolution of this conflict should consider, on the one hand, instruments for financial, social and cultural support, and on the other, new technical tools or approaches of land management, for example land consolidation, for facilitating access to land without having to purchase and re-distribute land at high market values.

Unfortunately, land consolidation or readjustment instruments are not available in the country and there is currently no discussion on this issue. Expropriation in public interest and purchase from willing sellers remain to be the main instruments for land acquisition in the context of land development for public purposes. If efforts are devoted to the establishment of a comprehensive cadastre system, then it would be also possible to add land consolidation and readjustment to the set of tools for managing land in rural and urban areas respectively. This would open a window of opportunity for solving long standing conflicts.

7.4 Regulated spatial and land use planning

There is an urgent need to increase the coverage of land use plans across the country. Since approx. one third of all municipalities don't have a valid municipal land use plan and more than half of the currently valid land use plans of municipalities with more than 50.000 inhabitants are over ten years, the risk of land conflicts is high. Further problems resulting from this lack of official planning include uncoordinated urban management, scarcity of land for development, lack of affordable housing, over-densification and increasing social segregation.

Even more, the existing plans are often accommodated to a logic of economic profitability linked to the real estate business and land speculation. This profit-oriented logic materializes through an ex-post accommodation of the instruments, thus regularizing unregulated development and growth and incorporating modifications to the urban areas in an opportunistic manner.

Civil participation in the planning processes is a further area of concern. In the last years participation has dropped considerably, leading to a disconnect between the needs of the population and the land development measures that are implemented.

In order to solve these problems, the government is working on the National Spatial Planning Policy. In fact, given the diversity of problems described above, it is evident that the development of a National Spatial Planning Policy is urgent and essential for building up a framework that is capable of articulating the wide spectrum of –sometimes incoherent- planning instruments and of breaching the gap between rural and urban areas. With more than 35 legal instruments (laws, decrees, norms, etc.) having an influence on how the territory is planned and used, the design of a national spatial planning policy could offer an opportunity for the country to establish an overarching frame articulated with processes of decentralization, inter-sectoral coordination and promote sustainable use of the territory at the national and sub-national level.

Although, this brings considerable hope, the related problems will not be solved unless strong efforts are devoted to increasing the number of municipalities with up-to-date land use plans. Participatory land use planning should therefore be a topmost priority for these municipalities.

7.5 Developing capacities for strengthening land governance

A major challenge to address all the issues mentioned above, is the development of the required capacities, both individual as well as institutional. The recommendations formulated above imply a need for developing on the one hand technical capacities (surveying, digitization of processes, interoperability of

databases, land consolidation and readjustment, participatory land use planning, analytical capacities related to household level data, among many others) and socio-political capacities on the other, mainly for drafting and implementing the legal reform processes. A capacity development strategy should thus go hand in hand with the reform processes and lay the ground for further improvements and long term adaptation.

This research did not attempt to assess the current capacities of higher learning institutions to fill the capacity gaps on land governance. This should be however a central matter of attention in policy discussions and long term strategies for education and training.

7.6 Suggestions for further research

There is clearly a need for further research on land issues in Chile. The present study is probably the very first comprehensive analysis on land governance in the country, carried out on the basis of local knowledge, and against the background of internationally accepted concepts, theories and lines of investigation. The present study may be a first step in a line of research that could shed light on the complexities of the land-related systems to understand why some of them "work" in a better way than others and what is needed to improve the situation.

For this purpose, a very promising approach for further research may be the Socio-Ecological Systems (SES) framework developed by Elinor Ostrom (2009). This framework would allow for giving a closer look to the diverse dimensions of land governance in Chile, which could potentially lead to re-thinking the related policies and how the government exercises its mandate at different levels. The normative concept of good land governance clearly insufficient to determine the paths to follow in a specific land-related policy area. A systemic analysis would provide a much better basis for decision making and policy implementation.

A particularly interesting area for SES research may be the one regarding indigenous land tenure rights. As mentioned numerous times throughout this study, the conflicts regarding indigenous lands and indigenous population have escalated in the last years. At this point, the issues are so complex, that a full understanding of the situation is hardly possible, unless research is carried out to "dissect" the complex tissues of interests, inter-actions, resources and consequences, to comprehend the whole, instead of trying to simplify reality.

This could also open the way for research on a high number of topics that have not enjoyed sufficient attention until now, such as access to land and how to foster equality, the need for re-distributive reforms, the current ways for accessing land

and their impacts on different stakeholder groups (farmers, women, etc) and how land conversion affects natural and economic resources in different parts of the country. Furthermore, as mentioned in previous sections, the information provided by the last agricultural census (1997) is largely outdated and there is therefore a pressing need for updated information at household level.

Clearly, another area for further research has to do with records of and tenure rights (cadastre), surveying and land registration. Introduction of new methods and technologies for land administration may also be subject of attention to deal with the pressing need for having a better information basis for managing and administering land in an efficient and effective manner.

Instruments of land management, which are widely used in other countries, such as land consolidation and readjustment, may be also considered in further research, as a means for conflict resolution and improving access to land for different purposes. This would require on the one hand research on technical as well as legal aspects of land governance.

Land governance is in nature a holistic concept, which requires holistic approaches that pave the way for going beyond blueprint policy making and implementation. This should be considered in future research activities, with a view at performing analyses that show the path towards the achievement of national and international development goals.

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9 Annexes

9.1 Summary of sources of information and data collection instruments

Source	Main information expected	Collection instrument
Experts in different land-related subject areas	Overview of land governance in Chile, main strengths and weaknesses. Awareness on VGGT and their implementation.	Semi-structured interviews
Dispute resolution (Judiciary)	Performance in resolution of land-related disputes. Roles and responsibilities. Transparency and accountability issues. Protection of vulnerable groups such as women, indigenous people and rural population.	Semi-structured interviews Review of statistics and performance reports
Land-related ministries	Experiences on land tenure and access to land. Institutional responsibilities. Public land management, lease arrangements. Rural development strategies and performance. Equity in terms of living conditions in rural and urban areas.	Semi-structured interviews Review of documents (laws, mandates, policy reports, performance reports) Review of statistics.
Regional and local governments	Performance in land-related processes, clarity in mandates and access to resources to execute these. Accountability and efficiency issues. Special attention on spatial and land use planning as well as land development. Rural as well as urban development processes, strategies, roles and responsibilities. Financial and technical support programmes.	Semi-structured interviews Review of documents (land use plans, regional development strategies, Regional planning instruments, legislation, support programmes) Review of statistics.
Land Registry	Performance and consistency of registry and the related processes. Public access to records. Level of security and clarity of land	Semi-structured interviews Review of documents/reports. Review of statistics.

	rights. Informality and access to services. Accountability and corruption issues. Financial sustainability.	
Land information systems and SDI	Availability and coverage of land information systems. Public access to records. Consistency and applicability of land information. Performance and functioning of spatial data infrastructure. Roles and responsibilities.	Semi-structured interviews Review of data-bases and available geographic information.
Notaries	Implementation of Constitutional provisions and Laws related to land tenure, legal disputes, property inheritance, transactions. Accountability, transparency and performance issues.	Semi-structured interviews Review of documents
Users of land registry	Quality of services, predictability, affordability, performance of procedures, transparency, corruption issues	Semi-structured interviews
Current legislation	Existing legal instruments and the extent of their implementation	Review of documents
Taxation and land-related revenue	Institutional processes of land administration (valuation, taxation, fees). Revenue policy and tax collection performance.	Review of documents and statistics Semi-structured interviews Review of statistics
Indigenous people	Roles and responsibilities. Institutional arrangements and level of representation in political decision-making processes. Access to land and dispute resolution. Land restitution and claims. Alternative land dispute resolution mechanisms.	Semi-structured interviews Focus groups Observation in the field Review of statistics
Community groups / NGO's	Experiences in community development, tenure disputes, access to land, particularly for marginalized groups. Compliance of principles such as Free Prior	Focus groups Semi-structured interviews Review of publications

	Inform Consent and Do No Harm.	
Press and media	Reporting on land conflicts, poverty and issues related to indigenous population	Review of published media and press articles, reports, etc.
Capacity building and training (Universities and other institutions of higher learning)	Existing land-related study programmes. Fluctuation of student numbers and main employability options.	Semi-structured interviews Review of statistics
Surveyors	Parcel boundary measurement and land conflicts. Coverage and inter-operability of land information systems, SDI.	Semi-structured interviews
Urban planners	Urban land use and planning, informal settlements, re-settlement procedures.	Semi-structured interviews Observation
Informal settlements	Access to land and formalization procedures. Performance of services and inclusion.	Semi-structured interviews Focus groups Review of reports Review of statistics
Private sector	Mortgages, Real-estate transactions and construction sector. Access to credit-	Semi-structured interviews Review of statistics
Farmers associations	Access to land and credit. Rural development strategies and their performance.	Focus groups Review of statistics

Source: The Author

9.2 Chile's Country Profile

Population, total (millions)	18,0
Population growth (annual %)	1,0
Surface area (sq. km) (thousands)	756,1
Forest area (sq. km) (thousands)	177,4
Protected areas (% of total area)	19,2%
Poverty headcount ratio at national poverty lines (% of population)	14,4
Poverty headcount ratio at 1,90USD a day (2011 PPP) (% of populat.)	0,9
GDP (current US$) (billions)	240,8
GDP growth (annual %)	2,3

Sources: World Bank, 2015, National Forestry Corporation, 2017, and National Institute of Statistics, 2015

9.3 Compilation of criteria for evaluation based on the VGGT

Legal recognition and allocation of tenure rights and duties

Sub-Category	Criteria for evaluation
Safeguards	1. Avoid infringing on or extinguishing tenure rights of others, including legitimate tenure rights that are not currently protected by law, when recognizing or allocating tenure rights to land 2. Protect women and the vulnerable who hold subsidiary tenure rights, such as gathering rights 3. Identify all existing tenure rights and rights holders, whether recorded or not, prior to recognition and allocation of tenure rights 4. All people affected should be included in consultation processes 5. Access to justice in case rights are not recognized should be guaranteed 6. Ensure that women and men enjoy the same rights in the newly recognized tenure rights, and that those rights are reflected in records 7. Where possible, legal recognition and allocation should be done systematically 8. Legal support should be provided, specially to the poor and vulnerable 9. Ensure that people have full knowledge of their land rights and the related duties 10. Forced evictions that are inconsistent with obligations under national and international law and the principles of the VGGT should be prevented
Public land, fisheries and Forests	11. Use and control of public land should be determined considering broader social, economic and environmental objectives 12. All actions should be consistent with existing obligations under national and international law and with due regard of voluntary commitments 13. Where states own or control land, the legitimate tenure rights of individuals and communities, including customary systems, should be recognized, respected and protected 14. To this end, categories of legitimate tenure rights should be clearly identified and publicized 15. Public land that is collectively used (commons) and the related system of collective use and management should be protected

	16. Accessible inventories of public land should be established, that should record all legitimate tenure rights in a single recording system or in a common framework. 17. There should be clear distinction between public land that will be under control and use by the public sector and the part that will be allocated for use by others and under what conditions 18. Policies covering the use and control of public land and that promote equitable distribution of benefits from state-owned land should be developed and publicized 19. Policies should consider the tenure rights of others and all affected people should be included in consultation processes. 20. Administration and transactions concerning public land should be conducted in an effective, transparent and accountable manner 21. Policies covering the allocation of tenure rights to others and, where appropriate, the delegation of responsibilities for tenure governance should be developed and publicized. 22. These policies should be consistent with broader social, economic and environmental objectives 23. Local communities that have traditionally used the land, should receive due consideration in the reallocation of tenure rights. 24. All affected people should be included in consultation, participation and decision-making processes 25. Policies should not threaten the livelihoods of people by depriving them of their legitimate access to these resources 26. State should have the power to allocate tenure rights in various forms, from limited use to full ownership 27. Policies should recognize the range of tenure rights and right holders 28. Means and conditions of allocation of rights should be specified and publicized 29. Allocation of land and delegation of tenure governance should be done in transparent, participatory ways, using procedures that are simple, clear, accessible and understandable to all 30. Where possible, there should be a single recording system or a common framework 31. Corruption in allocation of rights should be prevented 32. If possible, competent bodies responsible for land should have human, physical, financial and other forms of capacities necessary to exercise their mandates

	33. The outcomes of allocation programs should be monitored, including gender differentiated impacts on social, economic and environmental aspects.
Indigenous peoples and other communities with customary tenure systems	34. State and non-state actors recognize that land has social, cultural, spiritual, economic, environmental and political value to indigenous peoples 35. Indigenous peoples that exercise self-governance of land promote and provide equitable, secure and sustainable rights to land, with special focus on equitable access for women 36. Participation of all community members should be promoted through local or traditional institutions, including in the case of collective tenure systems. 37. Where necessary, communities should be assisted to increase the capacity of their members to participate in decision making and governance of their tenure systems 38. The State should comply with International Labour Organization Convention (No 169), the Convention on Biological Diversity and UN Declaration on the Rights of Indigenous Peoples. 39. Legitimate tenure rights of indigenous peoples should be recognized. Information on any such recognition should be publicly accessible. 40. Legitimate ancestral tenure rights should be, recognized and protected. Forced evictions should be avoided 41. States should consider adapting their policy, legal and organizational frameworks to recognize the tenure systems of indigenous peoples. 42. In drafting new policies and laws, state should consult indigenous peoples and there should be meaningful participation of members or representatives of affected communities 43. Indigenous peoples should be protected against unauthorized use of their land 44. Were a community does not object, state should assist to formally document and publicize information on the nature and location of their land 45. Indigenous tenure rights should be recorded with other public, private and communal tenure rights to prevent competing claims. 46. Indigenous peoples should be consulted before initiation of any project or adoption and implementation of legislative or administrative measures affecting indigenous lands 47. Such projects should be based on meaningful consultation with indigenous peoples to obtain free, prior and informed

	consent under the UN Declaration of Rights of Indigenous Peoples 48. Customary approaches used by indigenous peoples to resolving tenure conflicts should be respected and promoted in consistency with national and international law. 49. For land that is used by more than one community, means of resolving conflicts between communities should be strengthened or developed 50. Corruption in relation to tenure systems of indigenous peoples should be prevented by consultation and participation and by empowering communities
Informal tenure	51. States should acknowledge informal land tenure in a manner that respects existing formal rights under national law and promote policies and laws to provide recognition to such informal tenure 52. The process of establishing these policies and laws should be participatory, gender sensitive and strive to make provision for technical and legal support to affected people 53. Whenever states provide legal recognition to informal tenure, this should be done through participatory, gender-sensitive processes, with special focus on tenants 54. Special attention should be put on farmers and small-scale food producers 55. Technical and legal support should be provided to communities and individuals 56. Informal tenure resulting from overly complex legal and administrative requirements for land use change and land development should be prevented. 57. Development requirements and processes should be clear, simple and affordable to reduce the burden of compliance 58. Corruption should be prevented, particularly through increasing transparency, holding decision-makers accountable, and ensuring that impartial decisions are delivered promptly 59. Where legal recognition of informal tenure is not possible, states should prevent forced evictions that violate existing obligations under national and international law.

(Committee on World Food Security, 2012)

Transfers and other changes to tenure rights and duties

Sub-Category	**Criteria for evaluation**
Markets	60. States should recognize and facilitate fair and transparent sale and lease markets as a means of transfer of rights of

	land use and ownership in accordance with national and international law 61. Transactions of land tenure rights should comply with national land use regulation and not jeopardize core development goals 62. Operation of efficient and transparent markets should be promoted, to facilitate participation under equal conditions and opportunities for mutually beneficial tenure transfers. 63. Efficient and transparent land markets should also lessen conflict and instability, promote sustainable use of land and conservation of the environment, promote fair and equitable use of genetic resources associated with land, expand economic opportunities and increase participation by the poor 64. Undesirable impacts on local communities, indigenous peoples and vulnerable groups that may arise from, among others, land speculation, land concentration and abuse of customary forms of tenure, should be prevented 65. States and other parties should recognize that social, cultural and environmental values associated with land are not always well served by unregulated markets. 66. The wider interests of societies should be protected through appropriate policies, laws, regulatory systems and agencies on land tenure that provide non-discriminatory access and prevent uncompetitive practices 67. Administrative procedures should be simplified to avoid discouragement of market participation by the poor and the most vulnerable 68. Information on market transactions and market values should be transparent and widely publicized, subject to privacy restrictions 69. State should monitor this information and act to prevent adverse impacts 70. Reliable recording systems that provide accessible information on tenure rights and duties should be established to increase tenure security and reduce costs and risks of transactions 71. Safeguards to protect legitimate tenure rights of spouses, family members and others who are not recorded as tenure rights holders 72. Tenure rights of small-scale producers should be protected when facilitating market operations of tenure transactions
Investments	73. States and non-state actors should acknowledge that responsible public and private investments are essential to improve food security

	74. Responsible investments in land that support broader social, economic and environmental objectives under a variety of farming systems should be promoted 75. Investments by smallholders as well as public and private smallholder-sensitive investments should be promoted 76. All forms of transactions in tenure rights should be done transparently in line with relevant national policies 77. Responsible investments should do no harm, safeguard against dispossession of legitimate tenure rights and environmental damage, and should respect human rights 78. Land investments should be beneficial for the country and its people and made working in partnership with relevant government levels and local land holders, respecting their legitimate tenure rights 79. With appropriate consultation and participation, states should provide transparent rules on the scale, scope and nature of allowable transactions in tenure rights 80. Safeguards to protect legitimate tenure rights, human rights, livelihoods, food security and the environment from risks that could arise from large-scale transactions in tenure rights should be provided. 81. In case of investment projects affecting indigenous people, States and other parties should hold good faith consultation with indigenous peoples prior to initiation of these projects. 82. In accordance with principles of consultation and participation, States and other relevant parties should inform individuals, families and communities of their tenure rights. 83. In case of large-scale land tenure transactions, provisions should be made for different parties to conduct prior independent assessments on the potential positive and negative impacts 84. All existing tenure rights and claims should be duly considered and they should not be compromised by such investments 85. Contracting parties should provide comprehensive information to all relevant parties. 86. Agreements should be documented and understood by all affected parties. 87. Negotiations should be non-discriminatory and gender-sensitive 88. States should monitor implementation and impacts of agreements and take corrective actions where necessary to enforce agreements and protect all legitimate tenure rights 89. Grievance mechanisms should be established to request such actions

Land consolidation and other readjustment approaches	90. Where appropriate, States may consider land consolidation, exchanges or other voluntary approaches for the readjustment of parcels or holdings to assist improvement of land use 91. Where appropriate, States may consider the establishment of land banks as a part of land consolidation programs 92. Where appropriate, States may consider encouraging and facilitating land consolidation and land banks in environmental protection and infrastructure projects to facilitate land acquisition and to provide land compensation to all affected owners. 93. States may consider land consolidation and land banks to mitigate the negative effects of land fragmentation 94. States should refrain from using land consolidation where fragmentation provides benefits 95. Land consolidation projects to restructure farms should be integrated with support programs for farmers 96. Appropriate safeguards should be established in projects using readjustment approaches 97. All communities and individuals likely to be affected by a project should be informed appropriately
Restitution	98. Where appropriate, States should consider providing restitution for the loss of legitimate tenure rights to land 99. Where possible, the original parcels or holdings should be returned to those who suffered the loss, or their heirs 100. If this is not possible, States should provide prompt and just compensation in the form of money and/or alternative parcels or holdings through an equitable process. 101. Where appropriate, the concerns of indigenous peoples regarding restitution should be addressed 102. Gender-sensitive policies and laws should be developed that provide for clear, effective, transparent and participatory processes for restitution
Redistributive reforms	103. States may consider allocation of public land, voluntary and market based mechanisms as well as expropriation of private land for a public purpose 104. States may consider land ceilings as a policy option in the context of implementing redistributive reforms 105. Redistributive reforms may be considered for social, economic and environmental reasons, among others, where high land ownership concentration is combined with rural poverty attributable to lack of access to land. 106. Redistributive reforms should guarantee equal access of men and women to land

	107. States should facilitate the development of meaningful consultations on the redistribution 108. The financial and other contributions expected of beneficiaries should be reasonable and not leave them with unmanageable debt loads 109. Those who give up their tenure rights to land should receive equivalent payments without undue delay 110. The objectives and beneficiaries of reform programs should be clearly defined 111. State can consider conducting assessments in line with consultation principles on the potential positive and negative impacts that reforms could have 112. State should ensure that redistributive land reform programs provide full measure of support required by beneficiaries, such as access to credit, crop insurance, inputs, training, etc. 113. The full costs of reform should be identified in advance and included in relevant budgets 114. Redistributive reforms should be implemented through transparent, participatory and accountable approaches and procedures 115. All affected parties should be accorded with due process and just compensation according to national law. 116. All parties should receive full and clear information on the reforms 117. Access to means of resolving disputes should be provided for under national law 118. Corruption should be prevented, particularly through greater transparency and participation 119. States should monitor and evaluate the outcomes of reform programs, with participation of the involved parties, and introduce corrective measures when necessary
Expropriation and compensation	120. States should expropriate only where rights to land are required for a public purpose 121. The concept of public purpose should be clearly defined in law, in order to allow for judicial review 122. All transactions should respect all legitimate tenure right holders, especially vulnerable and marginalized groups, by acquiring the minimum necessary and promptly providing just compensation 123. The planning process for expropriation should be transparent and participatory 124. All parties likely to be affected should be informed and consulted at all stages 125. Fair valuation and prompt compensation should be ensured

	126. To the extent that resources permit, States should ensure that implementing agencies have the necessary human, physical, financial and other forms of capacity 127. All parties should endeavour to prevent corruption, particularly through use of objectively assessed values, transparent and decentralized processes and services, and a right to appeal 128. Feasible alternatives to eviction should be explored in consultation with all affected parties with the aim of avoiding or minimizing the need to resort to evictions 129. Evictions and relocations should not result in individuals being rendered homeless or vulnerable to violation of human rights

(Committee on World Food Security, 2012)

Administration of tenure

Sub-Category	**Criteria for evaluation**
Records of tenure rights	130. States should provide systems (e.g. cadastre, registration) to record individual and collective tenure rights in order to improve security of tenure rights for all 131. Such systems should record, maintain and publicize tenure rights and duties, including who holds those rights and duties, and the parcels or holdings of land to which the rights and duties relate 132. Systems should be provided in accordance with the particular circumstances, such as available human and financial resources 133. Socio-culturally appropriate ways of recording rights of indigenous peoples and other communities with customary tenure systems should be developed and used 134. An integrated framework that includes existing recording systems and other spatial information systems should be developed in order to enhance transparency and compatibility 135. Records of all types of tenure rights should be kept within the integrated recording system 136. Whenever it is not possible to record any kind of tenure rights, particular care should be taken to prevent the registration of competing rights in those areas 137. Everybody should be able to record their tenure rights and obtain information without discrimination on any basis 138. Where possible, implementing agencies, such as land registries, should establish service centres or mobile offices, having regard to accessibility by all interest groups

	139. To reduce costs and time required for delivering services, simplified procedures and locally suitable technology should be adopted 140. Spatial accuracy for parcels and other spatial units should be sufficient for their identification to meet local needs, with increased spatial accuracy being provided if required over time 141. Implementing agencies should link information on tenure rights, rights holders and related spatial units 142. Records should be indexed per spatial units as well as by holders to allow competing or overlapping rights to be identified 143. Records of tenure rights should be available to State agencies and local governments 144. Information should be shared in accordance with national standards and include disaggregated data on tenure rights 145. Information on tenure rights should be easily available to all, subject to privacy restrictions 146. Such restrictions should not prevent public scrutiny to identify corrupt and illegal transactions 147. State and non-state actors should endeavour to prevent corruption and illegal transactions 148. State and non-state actors should further endeavour to prevent corruption in the recording of tenure rights
Valuation	149. Appropriate systems should be used for the fair and timely valuation of tenure rights for specific purposes, such as operation of markets, security for loans and transactions of tenure rights 150. Valuation systems should consider non-market values, such as social, cultural, religious, spiritual and environmental values where applicable 151. Laws and policies that encourage and require transparency in valuing tenure rights should be developed 152. Sale prices and other relevant information should be recorded, analysed and made accessible to provide a basis for accurate and reliable assessments of values 153. National standards for valuation for governmental, commercial and other purposes should be developed and publicized 154. Valuation information and analyses should be made available to the public 155. States should endeavour to prevent corruption in valuation through transparency of information and methodologies
Taxation	156. State should have the power to raise revenue through taxation related to tenure so as to contribute to the

	achievement of their broader social, economic and environmental objectives 157. These objectives may include preventing undesirable impacts from speculation and concentration of ownership or other tenure rights 158. Policies, laws and organizational frameworks for regulating all aspects regarding taxation of tenure rights should be developed 159. States should administer taxes efficiently and transparently 160. Assessments of values and taxable amounts should be made public 161. Taxpayers should be provided with a right to appeal against valuations 162. States should endeavour to prevent corruption in taxation administration, through increased transparency in the use of objectively assessed values
Regulated spatial planning	163. States should conduct regulated spatial planning, and monitor and enforce compliance with those plans, including balanced and sustainable territorial development 164. Spatial planning should reconcile and harmonize different objectives of land use 165. Gender-sensitive policies and laws on regulated spatial planning should be developed and publicized through consultation and participation 166. Where appropriate, formal planning systems should consider methods of planning, territorial development and decision-making processes used by indigenous peoples 167. States should strive towards reconciling and prioritizing public, community and private interests and accommodate the requirements for various uses 168. Spatial planning should consider all tenure rights 169. National, regional and local spatial plans should be coordinated 170. Wide public participation should be ensured in the development of planning proposals and the review of draft plans to ensure that priorities and interests of all stakeholders are considered 171. States should endeavour to prevent corruption in planning processes, by establishing safeguards against improper use of spatial planning power, especially regarding land use change 172. Spatial planning should take into account the need to promote diversified sustainable management of land

Resolution of disputes over tenure rights	173. States should provide timely, affordable and effective means of resolving disputes over tenure rights as well as effective remedies and a right to appeal 174. Remedies should be promptly enforced 175. Mechanisms to avoid or resolve potential disputes should be made available to all 176. Dispute resolution mechanisms should be accessible to all 177. Specialized tribunals or bodies that deal solely with disputes over tenure rights may be introduced 178. Alternative forms of dispute resolution should be strengthened 179. Implementing agencies may be used to resolve disputes 180. States should endeavour to prevent corruption in dispute resolution processes

(Committee on World Food Security, 2012)

Responses to climate change and emergencies

Sub-Category	**Criteria for evaluation**
Climate change	181. States should ensure that legitimate tenure rights to land of all stakeholders are respected and protected by laws, policies and strategies and actions to prevent and respond to the effects of climate change 182. States should strive to prepare and implement strategies and actions in consultation and with participation of all stakeholders who may be displaced due to climate change 183. Provision of alternative land for displaced person should not jeopardize the livelihoods of others 184. States should facilitate participation of all stakeholders who hold legitimate tenure rights in the negotiations and implementation of mitigation and adaptation programmes
Natural disasters	185. When preventing and preparing for natural disaster, all parties should ensure that tenure aspects are addressed 186. Regulatory frameworks for tenure, including spatial planning, should be designed to avoid or minimize the potential impacts of natural disasters 187. International principles, including the UN Principles on Housing and Property Restitution for Refugees and Displaced Persons and the Humanitarian Charter and Minimum Standards in Disaster Response 188. Tenure rights should be addressed in disaster prevention and preparedness programmes

	189. Systems for recording legitimate tenure rights should be resilient to natural disasters 190. States should strive to identify areas for the temporary resettlement of people who could be displaced by natural disasters 191. Rules should be established for providing tenure security in such areas 192. States and other parties should address tenure in the emergency response phase 193. Any provision of alternative land for displaced persons should not jeopardize the rights and livelihoods of others 194. Legitimate tenure rights of displaced persons should also be recognized, respected and protected 195. States and other parties should address tenure during the reconstruction phase. 196. Temporarily displaced persons should be assisted in voluntarily, safely and with dignity returning to their place of origin 197. Means to resolve tenure disputes should be provided 198. Where parcel boundaries are to be re-established, this should be done consistent with the principles of consultation and participation 199. Where people are unable to return to their place of origin, they should be permanently resettled elsewhere ensuring secure tenure to all, without jeopardizing the rights and livelihoods of others
Conflicts regarding land tenure	200. All parties should take steps to prevent and eliminate tenure issues as a cause of conflict 201. Issues of tenure should be addressed before, during and after conflict 202. During and after conflicts, States should respect applicable international humanitarian law related to legitimate tenure rights 203. Where appropriate, States should consider using customary and other local mechanisms that provide fair, reliable, gender-sensitive, accessible and non-discriminatory ways of promptly resolving disputes over tenure rights to land 204. When conflicts arise, States and other parties should strive to respect and protect existing legitimate tenure rights 205. States should not recognize tenure rights to land acquired through forceful and/or violent means. 206. Refugees and displaced persons and others affected by conflict should be settled in safe conditions in ways that protect the tenure rights of host communities

	207. Violations of tenure rights should be documented and, where appropriate, subsequently remedied 208. Legitimate tenure rights of refugees and displaced persons should be recognized, respected and protected 209. Procedures for land restitution should be non-discriminatory, gender sensitive and widely publicized 210. Claims for land restitution should be processed promptly. 211. Procedures for restitution of tenure rights of indigenous peoples should provide for the use of traditional sources of information 212. Where restitution is not possible, the provision of secure access to alternative land for displaced persons should be negotiated with host communities and other parties 213. Resettlement should not jeopardize the livelihoods of others 214. Where appropriate, policies and laws should be revised to address pre-existing discrimination

(Committee on World Food Security, 2012)

9.4 LGAF Indicators and Dimensions

LGI 1. Recognition of a continuum of rights	
1	Individual rural land tenure rights are legally recognized
2	Customary tenure rights are legally recognized
3	Indigenous rights to land and natural resources are legally recognized and protected in practice, where appropriate according to international treaties
4	Urban land tenure rights are legally recognized
LGI 2. Respect and enforcement of rights	
1	Accessible opportunities for tenure individualization exist
2	Individually held land in rural areas is formally registered
3	Individually held land in urban areas is formally registered.
4	The number of illegal land sales is low
5	The number of illegal lease transactions is low
6	Women's rights are registered and recognized in practice in both urban and rural areas
7	Women's property rights to land are equal to those by men
LGI 3. Rights to forest and common lands	
1	Rural group rights are formally recognized
2	Even where ownership is with the state, arrangements to ensure user's rights to key natural resources on land are legally recognized and protected in practice
3	Multiple rights over the same common land and natural resources on these lands can legally coexist
4	Most communal and/or indigenous land is mapped (demarcated and surveyed) and rights are registered
LGI 4. Transparency of land use rezoning in rural areas	
1	Restrictions regarding rural land ownership are justified
2	Restrictions regarding rural land transferability are justified
3	Rural land use plans and changes in these plans (incl. rezoning) are based on public input and burden sharing
4	Rural land use changes to the assigned land use in a timely manner
5	There is a clear public process for rezoning of land use classes that result in changes regarding to environmental protection
6	Use plans for specific rural land classes are in line with actual use
LGI 5. Restrictions on rights: Land rights are not conditional on adherence to unrealistic standards	
1	Restrictions regarding urban land ownership and transferability are justified
2	Restrictions regarding urban land use are justified and enforced (including risk prone and protected areas)
LGI 6. Transparency of land use restrictions: changes in land use and management regulations are made in a transparent fashion and provide significant benefits for society in general rather than just for specific groups	
1	There is a clear decision-making process for expansion of urban land and associated land use change that respects existing rights and information on change is publicly available
2	In urban areas, land use plans and changes in these plans are based on public input

3	Urban land use changes to the assigned land use in a timely manner
LGI 7. Efficiency in the urban land use planning process: land use plans and regulations are justified, effectively implemented, do not drive large parts of the population into informality, and are able to cope with population growth	
1	A policy is in place and progress is being made to ensure delivery of low-cost housing and associated services to those in need
2	Land use planning effectively controls urban spatial expansion in the largest city in the country
3	Land use planning effectively controls urban development in the four largest cities in the country, excluding the largest city
4	Planning processes are able to cope with urban growth
LGI 8. Speed and predictability of enforcement of restricted land uses: development permits are granted promptly and predictably	
1	Applications for building permits for residential dwellings are affordable and effectively processed
2	The time required to obtain a building permit for a residential dwelling is short
LGI 9. Tenure regularization schemes in urban areas	
1	Formalization of urban residential housing is feasible and affordable
2	In cities with high levels of informal tenure, a clear, well-documented process to address tenure security, infrastructure and housing, exists
3	A condominium regime provides for appropriate management of common property (rules for common property for management of driveways, parking, gardens, stairways, etc.)
LGI 10. Identification of public land and clear management: public land ownership is justified, inventoried, under clear management responsibilities, and relevant information is publicly accessible	
1	Public land ownership is justified and managed at the appropriate level of government
2	There is a complete recording of publicly held land
3	The inventory of public land is accessible to the public
4	The management responsibility for public land is unambiguously assigned
5	Sufficient resources are available to fulfil land management responsibilities
6	The key information on public land allocations to private interests is accessible to the public
LGI 11. Justification and time-efficiency of expropriation processes: the state expropriates land only for overall public interest and this is done efficiently	
1	There is minimal transfer of expropriated land to private interests
2	Expropriated land is transferred to destined use in a timely manner
LGI 12. Transparency and fairness of expropriation procedures: expropriation procedures are clear and transparent and fair compensation is paid expeditiously	
1	Compensation is paid for the expropriation of all rights regardless of the registration status
2	There is compensation for loss of rights due to land use changes
3	Expropriated owners are compensated promptly

4	There are independent and accessible avenues for appeal against expropriation
5	Timely decisions are made regarding complaints about expropriation
LGI 13. Transparent process and economic benefit: transfer of public land to private use follows a clear, transparent, and competitive process and payments are collected and audited	
1	Public land transactions are conducted in an open transparent manner
2	Payments for public leases are collected
3	Public land is leased and/or sold at market prices
4	The public captures benefits arising from changes in permitted land use
LGI 14. Private investment strategy	
1	Policy and regulations are in place to unambiguously and publicly identify public/ communal land that can be made available to investors, in agreement with legitimate land rights holders
2	A policy process is in place to identify and select economically, environmentally, and socially beneficial investments and implement these effectively
3	Public institutions involved in transfer of large tracts of land to private investors are clearly identified; without institutional and administrative overlap
4	Public institutions involved in transfer of large tracts of land to private investors share land information and effective inter-ministerial coordination mechanisms are in place to timely identify and solve competing land use assignment (incl. Sub-soil)
5	Investors' compliance with business plans is regularly monitored and remedial action is taken if needed
6	Safeguards are established and applied to prevent that investments involving large tracts of land infringe on or extinguish existing legitimate tenure rights
7	Cases where resettlement is possible are clearly circumscribed and procedures to carry it out are in place
LGI 15. Policy implementation is effective consistent and transparent and involves local stakeholders	
1	Sufficient information is required from investors for government to assess the cost-benefits of the proposed investments
2	A clearly identified process is in place for approval of investment plans and the time required is reasonable and adhered to
3	There are free, direct and transparent negotiations between right holders and investors; legitimate rights holders have always access to information
4	Contractual provisions are publicly available and include benefit sharing mechanisms with legitimate right holders
LGI 16. Contracts are made public, and agreements are monitored and enforced	
1	Accurate information on spatial extent and duration of approved concessions is publicly available so as to minimize overlap and facilitate transfers
2	Compliance with safeguards is monitored and enforced effectively
3	Avenues exist for legitimate right holders to air complaints if investors do not meet contractual obligations and decisions are timely and fair
LGI 17. Mechanisms for recognition of rights	

1	There is an efficient and transparent process to formalize possession that is in line with local practice and understanding)
2	Non-documentary evidence is effectively used to help establish rights
3	Long-term unchallenged possession is formally recognized
4	First-time registration on demand includes proper safeguards and access is not restricted by high formal fees
5	First-time registration does not entail significant informal fees
LGI 18. Completeness of the land registry	
1	The cost of registering a property transfer is low
2	The mapping or charting of registry records is complete
3	Economically relevant private encumbrances are recorded
4	Socially and economically relevant public restrictions or charges are recorded
5	There is a timely response to requests for accessing registry records
6	The registry is searchable
7	Records in the registry are easily accessed
LGI 19. Reliability: registry information is updated and sufficient to make meaningful inferences on ownership	
1	Information regarding land rights maintained in different registries is routinely synchronized so as to reduce transaction cost for users and ensure integrity of information
2	Registry/cadastre information is up-to-date
LGI 20. Cost-effectiveness and sustainability: land administration services are provided in a cost-effective manner	
1	The registry is financially sustainable through fee collection
2	Investment is sufficient cope with demand and provide high quality services
LGI 21. Fees are determined transparently to cover the cost of service provision	
1	The schedule of fees is publicly accessible
2	Informal payments are discouraged
3	Service standards are published and monitored
LGI 22. Transparency of valuations: valuations for tax purposes are based on clear principles, applied uniformly, updated regularly, and publicly accessible	
1	There is a clear process of property valuation
2	Valuation rolls are publicly accessible
LGI 23. Collection efficiency: resources from land and property taxes are collected and the yield from land taxes exceeds the cost of collection	
1	Exemptions from property taxes are justified and transparent
2	Property holders liable to pay property tax are listed on the tax roll
3	Assessed property taxes are collected
4	Receipts from property taxes exceed the cost of collection
LGI 24. Assignment of responsibility: responsibility for conflict management at different levels is clearly assigned, in line with actual practice, relevant bodies are competent in applicable legal matters, and decisions can be appealed against	
1	There is clear assignment of responsibility for conflict resolution
2	Conflict resolution mechanisms are accessible to the public

3	Decisions made by informal or community based dispute resolution systems are recognized
4	There is a process for appealing dispute rulings
LGI 25. The share of land affected by pending conflicts is low and decreasing	
1	Land disputes constitute a small proportion of cases in the formal legal system
2	Conflicts in the formal system are resolved in a timely manner
3	There are few long-standing land conflicts (greater than 5 years)
LGI 26. Clarity of mandates and practice: institutional mandates concerning the regulation and management of the land sector are clearly defined, duplication of responsibilities is avoided and information is shared as needed	
1	Policy formulation, implementation, and arbitration are properly separated
2	The responsibilities of the ministries and agencies dealing with land do not overlap (horizontal overlap)
3	Administrative (vertical) overlap is avoided
4	Information on land ownership and use is shared among responsible institutions and relevant parts are freely accessible to the public
5	Overlaps of rights (based on tenure typology) are minimal and do not cause friction
6	Ambiguity in institutional mandates (based on institutional map) does not cause problems
LGI 27. Equity and non-discrimination in the decision-making process: policies are formulated through a legitimate decision-making process that draws on inputs from all concerned. The legal framework is non-discriminatory and institutions to enforce property rights are equally accessible to all	
1	Land policies and regulations exist and are developed in a participatory manner
2	There is meaningful incorporation and monitoring of equity goals in land policy
3	The implementation of land policy is costed, matched with benefits and adequately resourced
4	There is regular and public reporting indicating progress in policy implementation

(The World Bank, 2013)

9.5 Global Land Indicators proposed by GLII

Thematic area	Indicator
Land tenure security	1. Documented land rights: Percentage of women and men with legally recognized documentation or evidence of secure rights to land 2. Perceived tenure security: Percentage of women and men who perceive their rights to land are protected against dispossession or eviction 3. Tenure security under a plurality of tenure regimes: Level of legal recognition and protection of land rights and uses derived through a plurality of tenure regimes 4. Equal rights of women: Level to which women and men have equal rights to land, including rights to use, control, own, inherit and transact these rights 5. Indigenous land rights: Proportion of indigenous and community groups with claims to land, and percentage of land areas claimed and utilized by them that have legally recognized documentation or evidence of secure rights to land
Land conflicts and land disputes	6. Frequency of land disputes and conflicts: Percentage of women and men, Indigenous Peoples and local communities who have experienced land, housing or property disputes or conflict in the past years 7. Availability of dispute-resolution mechanisms: Percentage of women and men, indigenous and local communities that have access to effective dispute-resolution mechanisms 8. Land dispute resolution effectiveness: Percentage of women and men, indigenous and local communities who reported a conflict or dispute in the past years that have had the conflict or dispute resolved. An additional indicator has been suggested: • Percentage of all cases tried by national courts that concern land disputes
Land administration services	9. Land administration efficiency: Range of times and costs to conduct land transaction 10. Transparency of land information: Level to which land information is available for public access 11. Land administration availability: level to which all users, including women and vulnerable groups, have equal access to land administration services 12. Mobilization of land-based taxes: Government tax derived from land-based sources as a percentage of total government revenue

	13. Land area mapped: Proportion of national land areas with rights holders identified that is incorporated into cadastral maps / land information systems. In addition, formulation of specific potential indicators has been suggested, so as to address: • Land administration capacity: e.g. average number of transactions conducted (or concluded) per week (or per month, per year) as a percentage of the total number of processes pending (for a defined set of types of transaction) • Land administration accuracy: e.g. extent to which government provides protection or reimbursement for losses incurred by the mistakes caused by official land agencies • Affirmative action: extent of affirmative action to promote land access and tenure security of identified vulnerable groups.
Sustainable land use	14. Aggregate national changes in land-use sustainability: Changes in the geographical extent of sustainable land use, measured by i) land cover/land-use change; ii) land productivity change; and iii) soil organic carbon change. 15. Progress in sustainable land-use planning: Proportions of rural and urban administrative districts or units in which land use change and land development are governed by sustainable land-use plans that take account of the rights and interests of the local land users and land owners

(Quan & Kumar, 2017)

9.6 Summary of results

VGGT Sub-Category	Indicator/s (VGGT, LGAF, GLII)	Assessment (Satisfactory, partially satisfactory, insufficient)	Trend (Improving, stagnated, worsening)	Justification
Safeguards	VGGT 1-10; LGI 1-6, 11-18, 21, 22, 24, 26 and 27; GLII 1-5 and 7	Partially satisfactory	Improving	Lack of updated land use plans across the country leads to lack of enforcement of land use classification. The same happens due to the lack of a comprehensive cadastre. Lack of readjustment or consolidation instruments leads to use of expropriation as single instrument for development. Meaningful civil participation remains to be a challenge. Migration from other countries is a new challenge. On the other hand, mechanisms for rights recognition and protection are in place, are affordable and guaranteed to all citizens.
Resolution of disputes regarding land tenure	VGGT 173-180 and 200-214; LGI 24 and 25; GLII 6-8	Insufficient	Stagnated	The conflict regarding indigenous lands is still active and a solution is not yet in sight. The current instruments for land restitution are too slow. More political representation for indigenous people is needed along with alternative methods for land restitution and conflict resolution.
Management and administration of public land	VGGT 11-33; LGI 10-14 and 16	Partially satisfactory	Stagnated	Expropriation in public interest is still the main instrument for land acquisition besides purchase at market prices, since no other instruments exist. The introduction of alternative land management instruments is not under discussion.
Indigenous peoples	VGGT 34-50; partially covered by LGI	Insufficient	Stagnated	No comprehensive solution in sight. The conflicts continue

	1 and 2; GLII 5 and 6-8			escalating and violent events occur in parts of the country. Meaningful participation of indigenous groups is improving but the conflict regarding land restitution will remain.
Land restitution	VGGT 98-102	Insufficient	Stagnated	Restitution process is too slow and is based on a limited spectrum of land management instruments.
Informal tenure	VGGT 51-59; LGI 9, 17; GLII 11, 13 and 15	Partially satisfactory	Improving	Regularization procedures are in place. Stronger long-term oriented measures are still needed to prevent further proliferation of informality.
Records of land tenure rights	VGGT 130-148, LGI 1-3, 17-20; GLII 1, 5, 9, 10	Insufficient	Stagnated	Coverage and quality of cadastral information is low and unsystematic. Currently there's no initiative to establish a cadastre. Land registry's performance is good, although there is still a large number of properties in irregular status.
Land markets	VGGT 60-72; LGI 13; GLII 9, 10	Insufficient	Improving	Free market orientation is dominant. Since planning instruments are implemented only in a partial manner, undesired development takes place, leading to conflicts or increased inequality. Availability of information on modalities for accessing land is limited. However, the processes for accessing land through rental and purchase are clearly defined, accessible, predictable and affordable.
Land investments	VGGT 73-89; LGI 13-16; GLII 14	Partially satisfactory	Stagnated	Free market orientation is predominant and foreign as well as domestic investments on land are promoted by the government. Investment projects benefit a small promotion of the population.

Land valuation	VGGT 149-155; LGI 22	Satisfactory	Improving	Valuation procedures and responsibilities are clear. Data accessibility is improving.
Taxation	VGGT 156-162; LGI 22 and 23; GLII 12	Partially satisfactory	Improving	Land tax is collected in an efficient manner. Data availability is improving. The main area for further improvement remains to be the coverage of parcel-based land information.
Land consolidation and other readjustment approaches	VGGT 90-97	Insufficient	Stagnated	No land consolidation or readjustment instruments available. There is currently no discussion on this issue. Expropriation and purchase from willing sellers remain to be the main instruments for land acquisition in the context of land development for public purposes.
Redistributive land reforms	VGGT 103-119	Insufficient	Stagnated	Access to land in rural areas, particularly for vulnerable groups is insufficient. No land reform has been implemented since 1970s.
Expropriation and compensation	VGGT 120-129; LGI 11, 12 and 14	Partially satisfactory	Improving	The legal frame is under revision to increase transparency, protection of rights and efficiency of the process. Safeguards are in place but negative experiences have been documented
Regulated spatial planning	VGGT 163-172; LGI 4-8; GLII 14, 15	Insufficient	Improving, very slowly	Only one third of the municipalities have an updated land use plan. This problem is not being tackled. The national spatial planning policy will not solve the problem at municipal level unless a strong focus is put on it.
Climate change and natural disasters	VGGT 181-184 and 185-199; GLII 14	Partially satisfactory	Stagnated	Although concrete strategies, institutions and procedures exist for managing disaster risks, the lack of a cadastre reduces their effectiveness and efficiency.

Source: The Author

9.7 Eidesstatliche Erklärung

Ich erkläre an Eides statt, dass ich die bei der Ingenieurfakultät Bau Geo Umwelt der TUM zur Promotionsprüfung vorgelegte Arbeit mit dem Titel:

„Towards improved governance of land in Chile: challenges and opportunities for strengthening land management and land administration".

am Lehrstuhl für Bodenordnung und Landentwicklung unter der Anleitung und Betreuung durch Univ.-Prof. EoE Dr.-Ing. Holger Magel und Univ.-Prof. Dr. sc. agr. Michael Kirk (Philipps Universität Marburg), ohne sonstige Hilfe und bei der Abfassung nur die gemäß §6 Ab. 6 und 7 Satz 2 angebotenen Hilfsmittel benutzt habe.

Ich habe keine Organisation eingeschaltet, die gegen Entgelt Betreuerinnen und Betreuer für die Anfertigung Dissertationen sucht, oder die mir obliegenden Pflichten hinsichtlich der Prüfungsleistungen für mich ganz oder teilweise erledigt.

Ich habe die Dissertation in dieser oder ähnlicher Form in keinem anderen Prüfungsverfahren als Prüfungsleistung vorgelegt.

Ich habe den angestrebten Doktorgrad noch nicht erworben und bin nicht in einem früheren Promotionsverfahren für den angestrebten Doktorgrad endgültig gescheitert.

Die öffentlich zugängliche Promotionsordnung der TUM ist mir bekannt, insbesondere habe ich die Bedeutung von §28 (Nichtigkeit der Promotion) und §29 (Entzug des Doktorgrades) zur Kenntnis genommen. Ich bin mir der Konsequenzen einer falschen Eidesstattlichen Erklärung bewusst.

Mit der Aufnahme meiner personenbezogenen Daten in di Alumni-Datei bei der TUM bin ich einverstanden.

Jorge Espinoza Santander

Brasilia, 20.08.2018