

TECHNISCHE UNIVERSITÄT MÜNCHEN

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Decentralization and Land Management in Chad **Exploring the Context of Land Readjustment as a Consequence of Municipal Restructuring**

Case Study: Municipality of Moundou in the Region of Western Logone

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Vollständiger Abdruck der von der Ingenieurfacultät Bau Geo Umwelt der Technischen Universität München zur Erlangung des akademischen Grades eines Doktor-Ingenieurs genehmigten Dissertation.

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Die Dissertation wurde am 13.10.2015 bei der Technischen Universität München eingereicht und durch die Ingenieurfacultät Bau Geo Umwelt am 12.02.2016 angenommen.

Abstract

The process of decentralization in Chad, which started with the constitution of 1996, has led to the creation of new municipalities out of rural communities merged (incorporation). Also, the expansion of existing cities over surrounding rural entities (annexation) is another cause of the decentralization process in the country. These municipalities once restructured continue their expansion, leading to an increasing demand for conversion of rural lands. Based on qualitative research approach, this thesis explores municipal restructuring in Moundou as a case study. It acknowledges that municipal restructuring in the context of decentralization in Chad responds to a demand for more urban land in forms of land readjustments. The situation principally affects rural landowners with customary rights which are hardly enforceable in litigation cases during land reallocation. It has impacts on them because their activities directly linked to the availability of land resources.

The research focused on two objectives. First, to identify municipal restructuring processes and their impacts on local land uses. Second, to identify sustainable land readjustment tools that can contribute to building sustainable communities and ensuring tenure security in the context of decentralization. To achieve these objectives, the research explores how municipal restructuring under the decentralization process operates in Chad, and how the implication of land readjustment affects local tenure security.

The research found that municipal restructurings as they occur in Chad, lack objective planning prior to their implementation through land readjustment, principally due to a weak land administration system in the country. It concludes that two elements are deeply needed for a comprehensive remedy for this situation, especially as it relates to municipal restructuring and land readjustment. They are a sound definition of land policy and devolution of power. Devolution of power will give effectiveness to the decentralization process. A sound definition of the land policy will serve as the prerequisite for all actions related to land management. These two elements have to be based on the practice of good governance to deliver their expected impacts on local land administration. For a country that depends more than 80% in its agriculture, the key to sustainable development in Chad should be adequately linked to the sustainable management of its land resources -in favor to rural and urban activities. Although urbanization is a process that probably cannot be stopped anymore during the development course of a developing country, rural activities on the other hand need to be preserved in the interest of the remaining population in order to sustain their basic needs for shelter, food, and other products through the recognition of local land use rights.

Key words: municipal restructuring, land readjustment, urbanization, land governance, land management, decentralization, land policy, tenure security, customary tenure, statutory tenure, land use rights, Moundou, Chad.

Zusammenfassung

Der Prozess der Dezentralisierung im Chad, der mit der Verfassung von 1996 seinen Anfang nahm, hat zur Zusammenführung ländlicher Kommunen in neuen Gemeinden geführt. Ein weiterer Auslöser für den Dezentralisierungsprozess ist die Ausbreitung bestehender Städte in ihr Umland und damit einhergehend die Eingliederung ländlichen Gebietskörperschaften. Diese Kommunen breiten sich auch nach der Neustrukturierung weiter aus, was zu einem zunehmenden Bedarf an der Umwandlung bislang landwirtschaftlich genutzter Flächen führt. Basierend auf einem qualitativen Forschungsansatz untersucht die vorliegende Arbeit die kommunale Gebietsreform anhand der Fallstudie Moundou. Die Ergebnisse bestätigen, dass die Gebietsreform im Zuge der Dezentralisierung im Chad mit einem wachsenden Bedarf an Bodenordnung zur Bereitstellung städtischer Flächen einhergeht. Diese Situation betrifft vorwiegend ländliche Grundbesitzer mit traditionellen Gewohnheitsrechten (customary rights), die in Bodenordnungsverfahren nur schwer geltend gemacht werden können. Dies hat Auswirkungen auf sie, da ihre Aktivitäten direkt verknüpft sind mit der Verfügbarkeit der Ressource Boden.

Die Untersuchung fokussierte auf zwei Zielsetzungen. Das erste Ziel war es, die Auswirkungen von Gebietsreformen auf die Landnutzungen in den beteiligten Kommunen zu identifizieren. Das zweite Ziel war es, nachhaltige Bodenordnungsinstrumente zu identifizieren, die dazu beitragen können, Kommunen nachhaltig zu entwickeln und Grundbesitzansprüche im Zuge von Dezentralisierungen sicherzustellen. Um diese Ziele zu erreichen, untersucht die vorliegende Arbeit, wie sich die kommunale Gebietsreform im Rahmen des Dezentralisierungsprozesses im Chad vollzieht und wie die Implementierung von Bodenordnungsinstrumenten die Sicherheit der Grundbesitzverhältnisse vor Ort beeinflusst.

Die Untersuchung konnte belegen, dass die kommunalen Gebietsreformen, so wie sie derzeit im Chad geschehen, einen Mangel an objektiver Planung und ihrer Implementierung durch Bodenordnung aufweisen, vorwiegend aufgrund eines schwachen Bodenverwaltungssystems. Es stellt sich heraus, dass zwei Elemente besonders wichtig sind für eine umfassende Verbesserung dieser Situation, vor allem aufgrund der engen Verknüpfung zur Gebietsreform und zur Bodenordnung: Zum einen eine exakte Definition der Bodenpolitik (land policy) und zum anderen eine Verlagerung (Devolution) der Kompetenzen. Gerade letztere wird dem Dezentralisierungsprozess mehr Effektivität verleihen. Eine exakte Definition der land policy wird die Voraussetzung für alle Instrumente des Landmanagements schaffen. Diese beiden Elemente müssen auf einer Idee von Good Governance basieren, um die erwarteten Auswirkungen auf die Bodenverwaltung vor Ort tatsächlich zu entfalten. In einem Land, das wie der Chad zu 80% von seiner Landwirtschaft abhängt, sollte der Schlüssel zu nachhaltiger Entwicklung direkt verknüpft sein mit einem nachhaltigem Management der Ressource Boden – zugunsten der städtischen und ländlichen Entwicklung. Obwohl der Prozess der Urbanisierung wohl nicht mehr gestoppt werden kann, müssen dennoch ländliche Räume und Lebensweisen für verbleibende Menschen gesichert werden, mit dem Ziel, ihre Grundbedürfnisse wie Wohnen, Essen und andere Produkte sicherzustellen durch eine Anerkennung der lokalen Landnutzungsrechte.

Schlüsselwörter: kommunale Gebietsreform, Bodenordnung, Urbanisierung, land governance, Devolution, Bodenpolitik, Grundbesitzsicherheit, traditionelle Gewohnheitsrechte, Nutzungsrechte, Land Management, Moundou, Chad.

Acknowledgement

Exhausted throughout this long experience of my doctoral research, I have so many times stepped back, but I'm so grateful for the opportunity to have the immense support of Prof. Dr. Holger Magel that never ceased to encourage me to keep it going. I'm sure I wouldn't have made that far without the motivation I received from him, and the most relevant inputs from Dr. Fahria Masum. This experience is one that I will always remember as it reflects the confidence put in my ability to conduct such scientific work even though I doubted myself. The constant objective remarks and suggestions led me to this present result. I am simply grateful for all the consideration given to my work.

Thanks to Prof. Kötter for his pertinent remarks on the last draft. The support I received from Dr. Bruce Rukundo, Dr. Samuel Mabikke, Dr. Eugene Chigbu are of great contribution too. Thank you all for your advice and your encouraging words during my difficult moments of research.

If I have had the opportunity to come back to Germany for my research, it was with the tremendous help from the Deutscher Akademischer Austauschdienst (DAAD). It was a great experience, and I would like to show my gratitude for all the financial support that allows me in the fulfillment of my dream to be today at this position.

Thanks to my family, especially my wonderful kids that know the best how to put a smile on my face even when all is crumbling around me. To my father that suddenly left during this research journey, I dedicated my work. He has always wanted me to go further in my studies, he that never had the chance to finish his high school. Thanks to my mother for being such a support. She is simply the best mother I could ever dream of.

Last and not the least, I cannot have enough words to thank the provider of all things, the Savior of my soul and the reason I can still hold on this life, God Almighty throughout the magnificence work of His only begotten son, Jesus Christ.

Thank you all!

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Abbreviation

ASNGA: Association Ngaoubourandi

CLU: Commission Locale d'Urbanisme (Local Commission for Urbanism)

CONOCO: Continental Oil Company

ERNWACA: Educational Research Network for West and Central Africa

FAO: Food and Agriculture Organization of the United Nations

FIG: Fédération Internationale des Géomètres (International Federation of Surveyors)

IFAD: International Fund for Agricultural Development

LAS: Land Administration System

LIS: Land Information Systems

MATUH: Ministère de l'Aménagement du Territoire, de l'Urbanisme et de l'Habitat (Ministry of Land Management)

MDD: Ministry of Decentralization and Deconcentration

NGO: Non-Governmental Organization

PADUR: Programme d'Appui au Développement Urbain et Régional (Program for Support to Urban and Regional Development)

PDC: Plan de Développement Municipal (Municipal Development Plan)

PDL: Plan de Développement Local (local development plan)

PDR: Plan de Développement Régional (Regional Development Plan)

PILaR: Participatory and Inclusive Land Readjustment

PUR: Plan Urbain de Référence (Referential Urban Plan)

ROCARE: Réseau Ouest et Centre Africain de Recherche en Education

SDAU: Schéma Directeur d'Aménagement et d'Urbanisme (Master Plan for Urbanism)

SHT: Société des Hydrocarbures du Tchad (Company of Hydrocarbon in Chad),

SNAT: Schéma National d'Aménagement du Territoire (National Land Management Plan)

TUM: Technical University of Munich

UHLD: Department of Urbanism/Habitat/Land Development

UN: United Nations

UNCDF: United Nations Capital Development Fund

UN-ECA: United Nations Economic Commission for Africa

UN-ECE: United Nations Economic Commission for Europe

Chapter One: Introduction

Throughout history, the functioning structure of many if not all societies has tremendously changed around the globe, whether from external influences or from a need for adjustment to an evolving environment. The African continent has certainly experienced one of the greatest changes in its administrative structures with the colonization process in the 19th century. Indeed, the European settlement of Africa profoundly altered the administrative functioning of the various African nations that were colonized. Without considering realities on the field and existing social configuration, the resolutions adopted from the Berlin conference in 1884 marked the scrambling of the continent shared between the European mentors of that time (England, France, Portugal and Spain).

Drawn lines on map shattered communities as to form countries, simultaneously eliminating most of existing forms of autonomy and self-governance. As part of this colonization process, traditional rulers were coerced into signing treaties that gave ways to the new settlers for imposing their own administrative representatives. This state of matters pictured a lack of confidence towards autochthonous populations, and ended in a centrally oriented administration with a main purpose of ensuring settlers interests rather than local empowerment. Progressively, the thirst for change emerged within new local elites that have benefited from westerners education system. The Second World War triggered even more protests against the different colonial systems.

Having fought alongside soldiers from colonial powers, African soldiers realized their similitude with the westerners as human beings. The need to be treated equally and to be considered started to nurture in Africans minds. The late 1950's marked movements of pro-independence that echoed all over African colonial territories. Consequently, these protests led to the independence of most French colonies in the year 1960, with native administrators appointed heads of State. With local matters in the hands of natives, expectations for better improvement of livelihood became higher than under colonization. If independences in Africa marked a rupture with the colonial administration, empowerment at local level missed the expected target. In fact, regions with tremendous natural resources were exploited without consequent reinvestments for the welfare of local populations.

The last decades marked another new step towards strengthening local government in ways that support the objectives of greater efficiency and equity in the use of public resources and service delivery. With this new approach, broadly called decentralization, central governments allow local institutions to discern the needs and preferences of their constituents and also to be held accountable. However, the realities met on the ground pictures a much more different situation. Ribot (2002:2) noted that even though powers over natural and other resources are being allocated to a variety of local bodies and authorities, they are not always downwardly accountable or entrusted with sufficient powers.

1.1. Decentralization: path to devolution of power

When referring decentralization as the transfer of authority from central government and its agencies to field organizations and institutions, it appears that the concept has always existed in Africa within the public administration. Even, prior to colonization, kingdoms and other great communities managed public affairs in remote villages through appointed local authorities, and so did the Europeans during the colonial period by appointing representatives over countries and at heads of different hierarchical administrative subdivisions. Then, why decentralization appears in today's literature on African administration systems as if the concept only exists in Africa as earliest as in the beginning of 1980's? This option constitute probably a deliberate choice from scholars to mark a difference between a form of decentralization that failed to address local needs and the other that looks towards that local responsiveness.

Brosio (2000) among these scholars argues that before the so-called era of decentralization, most of African public administration systems were based on several variants of hierarchical deconcentration associated with an authoritarian/dictatorial political regime that brought increasingly unaccountable and corrupt system. This system has failed in the long run to address the maintenance of basic infrastructures, and service provisions were neglected in the rural areas and the very few resources devolved to local government were concentrated in the urban areas, in particular the capital city. In the late 1980's, the continuing weakening of these centrally planned economies started to reshape the conventional concepts of governance, especially in Sub-Saharan Africa (Cheema and Rondinelli, 2007).

Decentralization put in place by former colonial powers begun to depart from the idea of imposed decisions to more consideration of local concerns. This switch from one form of decentralization to another raises the question about what has really changed on the ground? In fact, the term "decentralization" itself embraces a variety of concepts that include political, administrative, fiscal and market considerations. Therefore, defining the different concepts calls for a comprehensive approach, because these concepts usually overlap and appear in different combinations across countries and even within sectors. However, Rondinelli (1986) recalls that most decentralization typologies begin with the requisite references to deconcentration, delegation, devolution, and privatization.

- Deconcentration refers to the shifting of the management workload from central ministries and departments to regional and local administrative levels by establishing field offices of national departments and transferring some authority for decision making to regional field staff. In this case, final authority is retained in the center.
- Delegation refers to the transfer of power and responsibility of specifically defined functions to organizations that are outside regular bureaucratic structures and are indirectly controlled by the central government. Ultimate responsibility therefore, remains with the government authority.

- Devolution is the process where the central government consciously creates or strengthens the structures of the sub-national units of government, thereby, lessening the direct control of the central government. Local units of government make autonomous and independent decisions that are separate from the central government.
- Privatization on its own is not an independent method of decentralization but implies a willingness from the central government to give up a direct hand in policy formulation and control by transferring the ownership and/or control of the public service's assets to the private sector, in order to achieve efficient production and service allocation.

Considering these different forms, the concept of decentralization in Africa may differ in its implementation from one country to another, with noticeable differences between French and English speaking countries. Poulin (2004) found in his studies that for Anglo-Saxon countries, decentralization covers a much broader context, from public institutions and communities to non-governmental organizations and private enterprises. While in French speaking countries, the term refers only to actors from the public sectors. After analysis of the decentralization movement in the last decades, it appears explicitly that the involved countries try to evolve from deconcentration to devolution, in order to effectively meet local concerns through the transfer of competences and local empowerment.

The term decentralization as broadly used in today's literature refers generally to its devolution form. Also to comply with the existing writings, the current study will consider decentralization as being devolution, although the discussion on the term will continue further in the theoretical framework.

1.2. Decentralization in Land Management: sustainability through local institutions

Ensuring the sustainability of resources tied to land is not only important but also crucial for both present and future generations, because land is the ultimate asset that sustains life on earth. In that regard, the United Nations Economic Commission for Europe (UN-ECE) defines land management as being "the process by which the resources of land are put to good effect" (1996:13). Although the organizational structures differ throughout the world, Enemark (2006:3) describes three essential components in a paradigm of land management within a given country context: land policies, land information structures, and land administration functions in support of sustainable development. This paradigm puts land administration in the center, addressing the social, legal, economic and technical framework within which land managers and administrators must operate (UN-ECE, 1996). Therefore, assessing the sustainable use of land resources falls naturally under the scope of public administration, whether the power of management is restrained at central or transferred to local institutions.

If a paradigm of land management exists with its essential components, decentralization of land management rarely finds unanimity, especially on the field due to the plurality in the tenure system. In Africa, access to land takes place through a number of statutory and customary institutions, whose competences usually overlap and coexist (Chinigo, 2010). Therefore, addressing land management under decentralization calls for a high consideration of the component rural land use. However, overlapping local interests and government considerations can be a tedious task. While local populations rely on land resources for their daily livelihoods, central governments rely on them as a source of wealth to be preserved for national interests.

According to Wily (2003), two options of decentralized land management are found on the field with one transitional in-between, even though a universal model does not exist. The first option is to have central administration appointing land administrators, with an upward accountability rather than towards local populations. The second option is to empower existing customary authorities and/or newly elected government institutions. Between the two options, the transitional one is to devolve land administration and management to the community with a reasonable measure of empowerment and flexibility to act, under technical supervision and financial support from central government.

1.3. Decentralization and Municipal Restructuring in Chad: overwriting local land use rights

The structure of public administration in Chad reflects more of the colonial legacy that has put several communities within the actual boundary. Inside the boundary that formed the Chadian State, hierarchical subdivisions took place in order to assess more efficiently public matters. Prefectures and Sub-Prefectures represented the higher units in the administrative hierarchy, with Cantons or Sultanates and Villages at the bottom. In this administration of the early independence, all local administrators were appointed by the central government except villages and Sultanates where most representatives inherited their position. In order to shift from this very centralized system that failed to address properly local needs, the constitution of 1996 revisited the hierarchical subdivision of the country. Like many other Francophone countries in Africa, Chad began its decentralization process with administrative restructuring to fit into the standard set by the former colonizer (RocheGude, 2003), with Municipalities as the lowest units.

The second article of the 1996 Constitution marked the beginning of a never-ending administrative restructuring: *“from an area of 1.284.000 km², the Republic of Chad is organized in territorial decentralized collectivities with a guaranteed autonomy by the present Constitution”*. This time the country is divided into Regions, then Departments and Sub-Prefectures, with a county town for each subdivision units. These county towns have automatically the status of urban municipalities according to the Article 34 of the Law N°02/PR/2000 of February 16th 2000 relating to the status of decentralized collectivities.

Alongside these county towns, other urban municipalities emerged under the circumscription of Sub-Prefectures. With these restructurings, the government has a major goal in the decentralization process, which is to empower local institutions through municipalities. According to Meligrana (2000), municipal restructuring refers to a variety of status and boundary adjustments that occurs under three major forms: incorporation, annexation, and amalgamation.

- 1. Municipal Incorporation:** allows a community of people to become a corporate body in the form of municipality with a mayor and other public institutions according to the country context.
- 2. Municipal Annexation:** is the process by which unincorporated communities become part of an existing incorporated municipality.
- 3. Municipal Amalgamation:** is the merging of multiple municipalities, or portions of municipalities, into one municipality.

In Chad however, only two among these three forms of municipal restructuring are relevant to the actual context (annexation and incorporation). Municipal restructuring as it occurs in developed countries like Canada, France and USA, requires an agreement by both the municipality and the community outside its boundary, or by the community to be incorporated. Most generally, amalgamation and annexation involve communities that have a common vision for the future and that it could be better achieved by working as one. Any municipal restructuring also stipulates a financial, administrative or political capacity to continue providing local population with the services and governance they require under the common consideration of a municipality status (*ibid*).

The status of municipalities is not clearly defined by most African countries, especially the former French colonies. In order to have a basis for discussion, the present study will consider Meligrana (2000) analysis that pictures a municipality as an urban administrative division with a corporate status and usually a self-government power. This definition however, complies with the vision behind most of the new structuration given to municipalities as the smallest administrative units run by a board of elected officials. In Chad, this restructuring is done through administrative reapportionments to give consideration to the urban and self-government mission of municipalities. The *Article 35* in the Constitution of 1996 stipulates “*For an entity to be maintained or erected as a municipality, it must have a level of development that allows the generation of sufficient income in support to the local budget*”.

Prior to the 1996 Constitution, more than twenty thousands villages coexist in Chad (Harre *et al*, 2010:19) for a roughly total of seven millions inhabitants, making an average of less than

three hundreds inhabitants per village¹. Therefore, the decision of incorporating villages or annexing them reflected a legitimate decision to avoid large number of local entities with very low potential of addressing local issues. However the constitution itself brought a challenge in the restructuring process, since it does not specify about the considerations to be taken into account, as for example the population size, the amount of locally generated income and more importantly, how the implementation should take into account local participation. By the year 2013, about two hundreds and fifty municipalities emerged from the *Ordinance N°01/PR/2003 of September 8th 2003 institutionalizing territorial decentralized collectivities*.

The most obvious aspect of municipal restructuring is the change in boundary, whether an existing municipality encroaches on surrounding rural entities or that some rural communities are merged together to form a new municipality. This change in boundary decided at central level happens on the ground through land readjustment, with a major focus on reconverting rural land uses into urban. Land readjustment as technical term was defined in the first International Conference on Land Consolidation held in Taiwan in 1979² (Hayashi, 2000:1). Sorensen (1999:52) defines land readjustment as a method “*whereby the ownership of scattered and irregular plots of agricultural land is pooled, roads and main infrastructure are built, and the land is then subdivided into urban plots*”. Although this definition of land readjustment reminds of land consolidation, the two concepts differ widely in their final objectives.

Based on the definition provided by the FAO (2003:19) and the comprehensive discussion by Magel (2000), land consolidation encloses a process of planned readjustment and rearrangement of land parcels and their ownership, in response to land fragmentation. It has a wide range of rural development objectives from agricultural improvement to village renewal and landscape development (FAO 2003:19). While land consolidation looks at the improvement of rural land uses, land readjustment focuses on the reconversion of these rural uses into urban ones. Hayashi (2000:2) considers that beyond the technique of land boundary adjustment, land readjustment covers a whole set of urban development strategies. These strategies require a certain level of expertise among other factors, to bring them into effectiveness. In Chad as in many other countries in the developing world, land readjustment still has the simple function of land parceling rarely followed by any form of development.

Dobingar (2004:198) declares that these practices of land readjustment in the developing world and especially in Chad are characterized by abusive expropriations and a lack of consideration towards customary tenure systems. In fact, whenever urbanization overlays a suburban or rural community, land readjustment that follows rarely considers compensation. With these practices, municipal restructurings disregard the fact that urban growth is a process that needs to be

¹ The Population Census of 1993 gives of projection of 7 000 000 inhabitants by 1996, with 85% of this population living in rural areas.

² This first Conference on Land Consolidation was titled “Land Consolidation: its Potential for New Urbanization at the Rural Fringe” held in Taoyuan, Taiwan in 1979

encompassed, and not a simple delimitation or zoning. In Chad, these newly created administration units face situations where the comprehensive master plan that ideally provides a foundation for planning a community's growth over the time is not considered, but rather superseded by decisions based only on zoning and restructuring. Resulting from these unplanned extensions of cities and the creation of new ones, local populations see mounting concern about the sustainability of their livelihoods.

Urbanization as a phenomenon cannot be stopped. However, it cannot always overlap rural activities or given more importance. For Magel (2001:7), sustainability and local participation should be part of any land development process, because they contribute in strengthening both rural and urban areas and their societies as they are also in their implementation, ideal embodiments of the democratic good governance principles. Chad depends on more than 80% of agricultural activities, which showcases the fact that majority of the population lives in rural areas. They sustain the livelihoods of the whole country through the supply of basic needs. Therefore, a sustainable way to manage land at local level would be a concept that ensures the preservation of both rural and urban means of living. Eventually, a concept that will give value to lands in the two contexts, and that is able to secure the access for everyone, even to the rural poor.

1.4. Decentralization of Land Management in Chad: need for tenure security enforcement

The concept of land tenure security has a wide range of definitions, but Augustinus and Benschop (2003:2) give a more comprehensive and consensual one, which is “*the right of all individuals and groups to effective protection by the state against forced evictions*”. The term “Forced eviction” in this definition refers to “*the permanent or temporary removal against their will of individuals, families and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate form of legal or other protection*” (*ibid*). The disparity in culture and practices makes this concept of security very subjective and highly dependent of local perceptions. Van Gelder (2010, cited by FIG 2012:2) remarks that three kinds of tenure security exist:

1. ***De jure (legal) tenure security***, where the right of access to and use of land is underwritten by a known set of legal rules. It often takes the form of title to property
2. ***De facto tenure security***, which operates in practices and based on the actual control of property and is not related to its legal status. It calls to the frequency of forced eviction and the general attitude of authorities towards illegal occupants.
3. ***Perceived tenure security*** is the security of tenure perceived by the dwellers and is in effect when there is no threat of involuntary removal from the land. This kind of tenure

security is based on practical factors such as the perceived probability of eviction and other factors that may result in involuntary resettlement.

Legal tenure security refers to a formal concept with authoritative documents identifying the owner of an asset recognized by the State power. *De facto* and perceived tenure security on the other hand are empirical concepts very much related to realities on the ground. Even within the context of legal pluralism where different means of ownership recognition are offered, *de jure* tenure security remains in general the most secure one. However, this form of tenure security does not always find legitimate recognition especially in rural settings, and/or that it comprises very hardly accessible steps. Therefore, *de facto* tenure security appears as an alternative with a broad social acceptance, but often exists without legal recognition (Palmer et al. 2009, cited by FIG 2012:2). The inexistence of legal recognition weakens the sustainability of *de facto* tenure security, and also its enforceability.

Unable to complete the bureaucratic process of registration, most Chadians in rural settings rely on the customary tenure system, based quite often on *de facto* and perceived security. Livelihood in rural settings depends highly if not only on the productive use of land. Forests, rangelands and wetlands are ultimately important resources for rural populations. However, land readjustment promoted by the on-going municipal restructurings in Chad sees many lands shift owners and uses. This urbanization of rural lands continually erodes the ability of rural poor users to access them as they tend to be disposed and forced off their property. In the name of “decentralization”, forests, agricultural and rangelands are being converted for urban uses, threatening both the ecosystems and the livelihoods of these local communities and in some extend, of the whole country.

The overall practice of land readjustment brings formal tenure system on top and overwrites nearly any customary ownership, which leaves rural populations with fewer opportunities to enforce their rights on lands they own and use. The development or creation of urban municipalities in Chad should rather invest in sustainable land use and tenure security that will logically move communities towards a future of social inclusiveness, environmental stewardship and strong governance practices, which are some of the core elements behind decentralization. In other words, wise stewardship of land resources will greatly aid both economic development and the protection of valued environmental and societal elements at local level.

1.5. Subject to Analysis and Research Objectives

Located in the region of Western Logone in Southern Chad, the municipality of Moundou is known to be the country’s economic capital with the number of industries and the important economic activities found there. Created officially in 1923, the municipality has uncontrollably extended its boundary over the years, as a consequence of rapid urbanization. In 1996, with the launch of the decentralization process, the municipality of Moundou encroached on more

surrounding rural entities as part of the restructuring of its new boundary. Land readjustment took place, and continues to operate without any serious consideration given to rural land use rights.

In order to understand how municipal restructuring under the decentralization process operates in Chad, and how the implication of land readjustment affects local tenure security, the current study will focus on the following two major objectives:

- a. Identification of municipal restructuring processes and their impacts on local land uses.
- b. Identification of sustainable land readjustment tools that can contribute in building sustainable communities and ensure tenure security in the context of decentralization.

As none of previous studies in Chad have addressed the stated problem comprehensively, the nature of the current research is exploratory with specific questions as follow:

1. What are the processes of restructuring rural communities into urban areas and the extension of existing cities over rural settings?
2. How these restructurings affect tenure security and local land use patterns? Do local authorities have enough skills and resources in regard to land management? Are local populations involved in the process?
3. Which land readjustment tools can be benefic for sustainable land management within the context of municipal restructuring?

1.6. Hypotheses of the Research

From what precedes, two hypotheses can be formulated as follow:

H1: Municipal restructurings in Chad are motivated by the need to provide more urban lands through readjustments of rural lands.

H2: Land readjustment as it occurs in Chad, creates an environment of tenure insecurity for customary land holders in form of abusive expropriations.

1.7. Structure of the Thesis and Overview of the Research Process

The structure of this thesis is comprised of eight chapters developed in line with the objectives and the hypothesis of the research.

Chapter one, which is the current one, provides background information and the motivation behind the research topic. It also poses the major questions that the research intends to answer, with an overview of the process.

Chapter two defines the theories behind decentralization, land management, and sustainable development. It describes the broader relationship that exists between the three. In relation to municipal restructuring, the review of these theories concludes in the form of a conceptual framework, which is the backbone of this research. It integrates the concept of land

readjustment and tenure security within the context of decentralization for municipal restructuring in Chad.

Chapter three reviews the literature on land management and decentralization, especially in former African French colonies. It provides a context for the research after discussion of previous studies and analysis on the topic. This chapter underlines how decentralization operates on the ground according to colonial legacy, and its implication on land management with an emphasis on Francophone countries.

Chapter four focuses on the methodology that guided in conducting the present study. It presents a qualitative oriented research that focused on analyzing the reasons behind the stated problem. It gives an overview of the different tools used in the data collecting and analysis, as well as the motivation behind the choice of the study area.

Chapter five provides background information (geography, population, economy, etc.) on Chad.

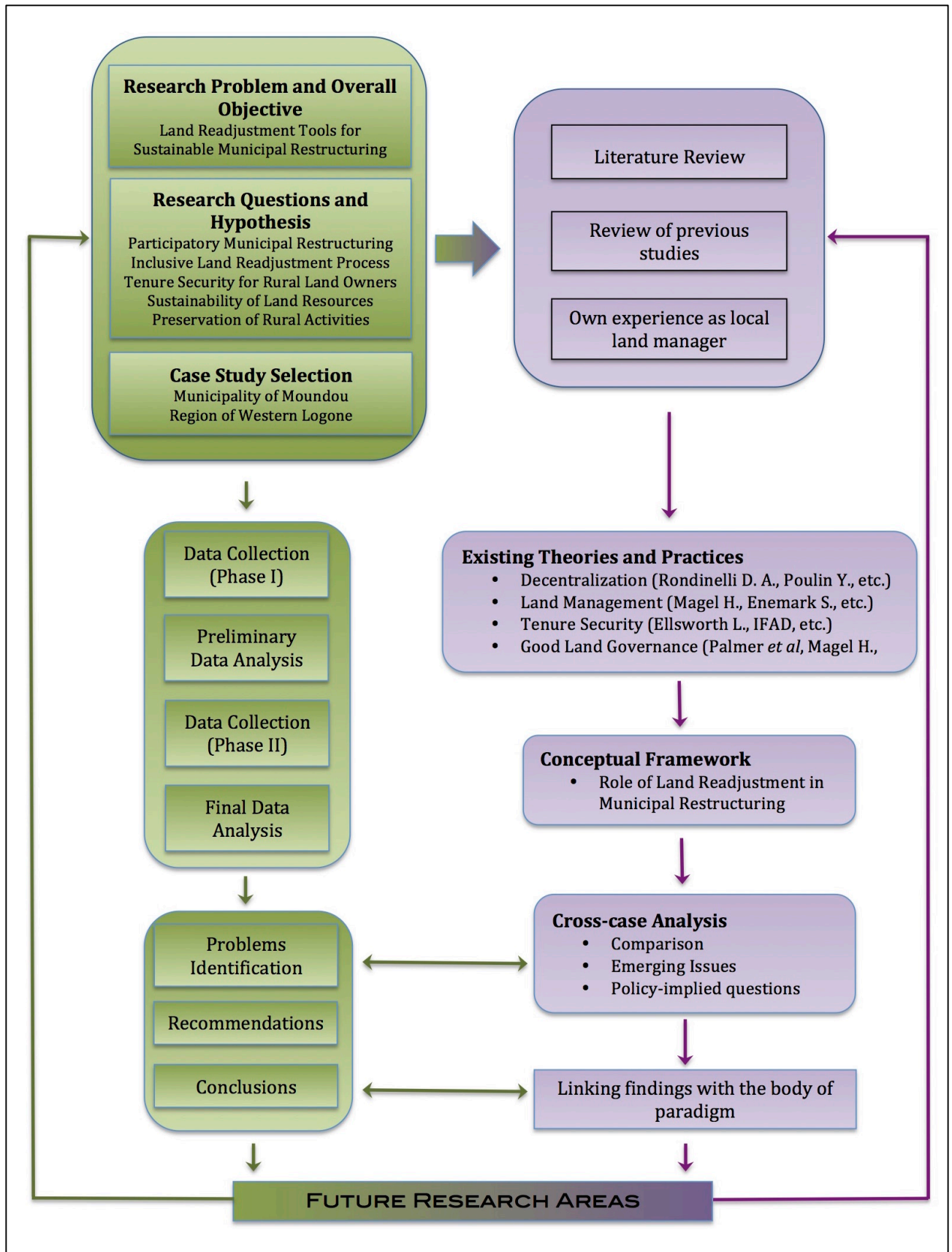
Chapter six is an overview of general aspects to give a basis for a better understanding on the dynamic of land management and the different administration systems.

Chapter seven reviews the decentralization process and its implication in administrative restructuring for the municipality of Moundou. The chapter focuses on the study zone to present specific cases on municipal restructuring and land readjustment, in order to identify the impacts on tenure security and sustainability of land resources.

Chapter eight recalls the two hypotheses and confronts them with the findings, then gives recommendations on elements to be integrated for a comprehensive and sustainable municipal restructuring that should consider both urban and rural activities. With the idea that a research always opens to further studies, suggestions are given at the end on elements that need consideration in the future.

The following figure 1.1 gives an overview of the research process and the existing interrelation between the different steps:

Figure 1.1: Overview of the Research Process



Source: Author (Modified from Lupala 2002:87 and Masum 2009:1)

Chapter Two: A Review of Practices and Challenges of Land Management and Decentralization in Africa

2.1. Introduction

As stated in the previous chapter, the broad objective of this research focuses on sustainable land management within the context of decentralization in Chad, with an emphasis on land readjustment as a consequence of municipal restructuring. In order to put land resources into good use, the role of public administration needs to be clearly defined especially when the competences have to be transferred to local institutions. Throughout history the context of public administration has tremendously evolved from simple societal organizations to more complex institutions.

The European settlement in the nineteenth century has marked a new starting point in the public administration system highly impacted by western culture. Without denying entirely local institutions, the settlers introduced all set of new rules and regulations to ensure firm delivery of their power. Also, the imposed schooling system brought up African elites that progressively took responsibility in public administration. After the independence that mainly occurred in the early 1960's, these former colonies continued on the footsteps of the colonial administration, but with great consideration towards customary principles for most of them. In fact, countries like Senegal, Benin, and Uganda opted for a return to their roots, while other like Gabon, Chad and Cote d'Ivoire opted for a greater consideration of the colonial legacy. However, these different choices do not undermine the legal pluralism context of many countries, if not all.

African administration reflects today a mix of colonial legacy and local heritage, more accurately represented in land management approaches where customary and statutory tenure systems coexist. This coexistence is however delivered with confusion due to unclear definition of boundaries between the two system, which finally reveals a tight connection between the type of setting and the system of tenure: customary tenure operates more often in rural backgrounds, while statutory tenure systems are enforced within urban boundaries. Because statutory systems are based on written laws, their enforceability tends to always overshadow customary practices. Such situation raises great concern in terms of sustainability of rural activities tied to land resources, especially with the decentralization that tends to create new urban communities out of villages.

The current chapter reviews the context of decentralization and its implication on land management in Africa. Although many countries struggle to put efficient approaches of the two concepts, some however succeed in putting in place techniques that better fit in local realities. These best practices are recalled at the end of this chapter to provide background information for further recommendations in the specific case of the municipality of Moundou.

2.2. Decentralization Approaches in Africa

Tracking back African history usually raises controversy and poses question of reliability due to lack of written documents in many cases. As a consequence, historical accounts of African public administration often highlight colonial setting and overshadow the pre-colonial era. However, through oral traditions and numerous of found artifacts, African history cannot be totally denied. In fact, Ayittey (cited by Olowu, 1994) and Abioye (2011), in their analysis of the history of African governance, identify two broad types of governance systems that coexisted in pre-colonial Africa: (1) acephalous or stateless societies and (2) hierarchical political systems with centralized authority.

Stateless societies were small political entities and had no bureaucracies as they were mostly based on kinship. Hierarchical societies on the other hand incorporated several societies conquered in war or which voluntarily submitted to another, with bureaucracies to carry out certain functions such as collecting taxes, supervising ceremonies, entertaining dignitaries, and compelling people to do the rulers' bidding. These polities, which evolved before the stepping of Europeans in Africa, were either centralized or decentralized political entities presided over by emperors, kings, chiefs, or military commanders (Olowu, 1994).

Stateless societies for example, recognized the positive and negative factors in centralized authority systems (Abioye, 2011). They knew that centralized rule could be useful in defending their communities against attacks. On the other hand, they also dreaded the theoretical possibility of autocracy and tyranny which centralized government represented. For Kisangani (2001), the thirst for local empowerment in the decision-making was true around the continent in these pre-colonial societal organizations. However, even if some of the adopted polities were decentralized or confederated, most of them developed as centralized systems where the king or the chief represented the top, followed usually by an inner circle of advisors and a council of elders (ibid).

The centralization of power became more evident over the years to the extent of endowing some rulers with almost divine position. Knowing how influential African rulers can be on their people, the European settlers took benefice from the situation to consolidate their administration, which marked a beginning of decentralization of power within the modern African state. Settlers did not operate directly in remote areas, but they rather entrust local chiefs with the power of representing the colonial interests. Ribot (2001) considers at least four waves of decentralization in the Francophone and Anglophone colonies: after each of the World Wars, shortly after the independence in the early 1960s, and in the last three decades.

During the colonial period, French instituted decentralized government under the term "association", while the British proceeded with their concept of "indirect rule", pretexted to be progressive forms of community participation by allowing self-determination. New entities were created, and native leaders were endowed with ruling power. French settlers were

interested both in dispatching their civilization and exploiting natural resources, but British had more economic interests in their colonies. Regardless of these different considerations, the policies of indirect rule and association created an “institutional segregation” in which most Africans were relegated to live in a sphere of so-called “customary” law, while Europeans and urban citizens obeyed civil laws (*ibid*).

Mamdani (1996, cited by Ribot 2001:5) points out that the emphasis on this differentiation helped in the forging of specifically native institutions through which settlers easily ruled. Most of these institutions emerged from existing traditional entities, but other like sultanates and cantons appeared as pure creation from colonial powers. They created these new entities with superseding power over villages to better regroup smaller societal organizations. In fact, this strategy offered means to penetrate and manage the rural world mostly in difficult accessible zones. Colonization has refigured the terrain all over the African continent, with a legacy of governance systems that continues to prevail until today in the public administration.

The legacy left by the colonial institutions pictured more a dominance of power rather than authority mingled with accountability and responsiveness (Olowu, 1994). The Educational Research Network for West and Central Africa (ERNWACA) noted that the overall context of most African States of post independence is marked by highly centralized administrative and political systems managed by authoritarian regimes (ROCARE 2011:20). Very few countries demarked themselves in their administrative structure, like Mali and Senegal (*ibid*). Their administrative culture based on decentralization could not accommodate deconcentration, and much less, centralization instituted by the French colonization.

Mali inherited an administrative culture of distributing functions between the State and other public authorities, based on its historical great empires of the 11th to the 17th centuries. These empires were federations of entities headed by emperors, and whose large territories made decentralization imperative. Senegal on the other hand has a long history of decentralized administration as the country was for a certain time one of the main gates to America for the European slave traders. The country has had a decentralized administrative system for over 155 years (*ibid*).

For most of the other countries from the former French colonies, the earlier decentralization movements represented a much more deconcentrate form of the central administration that has evolved in more devolved forms during the last decades with local elections of councils.

Table 2.1: Decentralization Status in Some of the French Speaking countries

Country	Initial Experiences	Trigger Events	Establishment of Elected Councils	Number of Councils
Burkina Faso	Law N°55-1489 of 18/11/55 created two full fledged councils	Decentralization enters into political discourse in 1990	First council elections in 1995	33 urban councils. Rural area not concerned
Cameroon	Two full-fledged urban councils by the colonial administration	Process continued after independence	Progressive since the first experiences	338 councils in 1996. Transfer of powers not yet effective
Mali	Creation of two mixed councils in 1919 followed by two others in 1954. Extension to the entire country as from 1958	Democratic transition in 1991	Following elections in 1999	703 including 689 created in 1999 and 14 old councils
Niger	Council elections in Niamey in 1957	Included in the constitutions. Launching with democratization	January 2005 following the elections of July 2004	4 towns; 255 councils including 41 urban councils
Senegal	Creation of 4 councils between 1872 and 1887 following the Decree of 10 August 1854	Political will	Progressive	534 local authorities (14 regions, 104 urban councils, 46 district councils and 370 rural councils)
Chad	Constitution of 1958 that mode of Chad, a republic with administrative subdivisions	Constitution of 1996 that defined a new decentralization with local elections.	Following the first municipal elections of January 22 nd 2012	52 elected municipal authorities

Source: ROCARE³ (2011:21), as completed by Author

Several decades after the independence movements, decentralizations across the continent in the form of deconcentration have failed to produce autonomous representative bodies (Mawood 1983, Manor 1999, Mamdani 1996, cited by Ribot 2000:6). Neither did the new administration approach promote participation, nor did it bring any meaningful economic and social advancement as noted by the United Nations Capital Development Fund (UNCDF, 2000:1). The situation led western donors into imposing structural adjustment programs in the late 1980s and early 1990s, requiring the cutting down of central governments, which forced many African governments to redevelop decentralization reforms towards its devolution form.

The following reforms infused with more democratic language were viewed as practical way to a) bring services to neglected peripheral; b) obtain a more equitable distribution of public services; c) and increase popular participation in policy choices (Brossio 2000:2). These expectations however, reveals much complex situations on the ground, especially in terms of land management ruled broadly under legal pluralism across the African continent.

2.3. Legal Pluralism in the African Tenure Systems

Because of the enormous diversity that represents Africa, speaking of a general African tenure system would be a tedious and risky task since any attempt at an overview of local systems shows a wide variety of situations on the ground and the profound transformation that they have

³ ROCARE in French (ERNWACA in English: Educational Research Network for West and Central Africa)

undergone (Le Meur 2005:2). An understanding of the systems existing in the pre-colonial states and the transformation process they went through as a result of colonialism is necessary in order to appreciate the situation generated by the decentralization movements of these last decades. Lentz (2007), in her analysis of the dynamic structure of customary land, argue that in pre-colonial time Africans associated land with a deep religious meaning, and mostly conceived it as an unbounded resource to be used, but not as a commodity to be sold.

Table 2.2: General Overview of the African Pre-Colonial Tenure Structures

Tenure Components	<i>Lineage-Based Systems</i>	<i>Monarchy Systems</i>
First Owners	Community	Monarchy
Land Administrators	Village chief/Land chief	Monarch, nobles
Lease/Mortgage	Rarely found	yes
Selling	No	yes
Land Taxes	In forms of gifts or/and sacrifices	yes

Source: Author, based on Bruce (1998:9)

Although differences existed in the African pre-colonial tenure systems, two subdivisions emerged according to a prospection done by Bruce (1998:8) and represented in the Table 2.2. The first group is lineage-based systems where the members descending from the same ancestor are considered to be the “owners” of the land. Individuals have the right to acquire a piece of land after consulting the village chief or land chief. The chief does not own the land, so he does not extract any forms of tax, but rather receives gifts and sacrifice offers at special ceremonies. The second group, less frequently found, is where land is granted by the monarchy to the nobles who then distribute the rights to their lineage. In these systems, the allocated lands can be leased, mortgaged or sold, especially to outsider or stranger to the group. Under today’s legal pluralism, these two subdivisions continue to dictate the access to land and natural resources in community based tenure systems.

These two groups can be either based on patrilineal or matrilineal inheritance principles. In patrilineal societies, rights are passed either from father to eldest son or from eldest male in the lineage to the next eldest male (usually the brother of the eldest male). In matrilineal societies, rights to land are passed on the mother’s side. In these cases, males get rights to land from their mother’s brothers. Regardless of the existing differences, the general perception of these pre-colonial tenure systems presents a strong bond between the different community members that made landmarks or obvious demarcation unnecessary (Lentz, 2007). Linear boundaries between fields and construction lots were usually marked off only by ditches, paths, hedges of shrubs or signs on trees. This state of matters occurred until the Europeans stepped in with the notion of property ownership and the introduction of cash crops activities that brought monetary value to land (Table 2.3).

Table 2.3: Principal forms of land tenure in Africa

Form of tenure	Main features	Prevalence
<i>Freehold</i>	Absolute title to land, including the rights of use, control and disposal, guaranteed and backed by the State. May be held by groups but more often by individuals	Less prevalent in rural Africa except where created for settlers during the colonial period, or by express allocation of freehold rights or titling programs to churches or/and projects. More common in urban areas
<i>Leasehold</i>	Long but limited term rental contract (typically 25, 50 or 99 years) on land belonging to the state or private owner; A form of land title backed by the state, and often transactable on the market	More common in Africa than freeholds, especially where all land belongs to the state which allocates land on a leasehold basis or creates leasehold title as a means of formal registration of customary rights
<i>Customary rights</i>	Legitimate land rights derived from kinship with or inheritance from members of a land holding group who have established rights historically by clearance or kinship. Customary rules for land access vary widely. Rights held in perpetuity and may be transactable but not on a permanent basis, or not without permission of the group or a customary authority.	The predominant form of African land holding, but with varying degrees of freedom to utilize and dispose of land at individual, household or village level according to custom. Where land availability is sufficient, non-farm and unutilized land are generally held under Common Property according to local customary rules. Exist in law in number of countries but they lack of enforcement framework

Source: UN-ECA⁴ (2006:6)

French and British in their settling of Africa encouraged some sort of economic development that diverted part of agricultural lands to new uses, and they stimulated an appetite from local populations for imported goods that could only be met by the exploitation of lands in cash cropping (Pottier, 2005:59). This modification in local practices impacted the traditional tenure systems as people began to evaluate lands they used on monetary basis. On the other side, Europeans introduced their systems of common and civil laws in order to secure their interests to land. However, areas with less interest for the settlers were designated as rural settings where customary management of land continues to be performed by local populations. While the French chose to break the power of indigenous authorities by replacing them with state management, the British system of indirect rule left more room for local empowerment (Lavigne-Delville *et al*, 2000).

The British upheld customary tenure and delegated enforcement powers to the chiefs on the basis of their legitimate traditional role in regulating local affairs. French on their side, created new administration structures and imposed new categories of traditional chiefs on top of existing ones. Therefore, the ability of social groups to define rules and enforce certain types of rights was then considerably greater in the Anglophone than in the Francophone countries (Alinon, 2008). After the independence, most countries in the Sub-Saharan Africa inherited this dual, unequal and hierarchical system of land tenure, with freehold and leasehold land rights being treated as superior to customary land rights (UN-ECA, 2009:19).

⁴ The United Nations Economic Commission for Africa

While customary law is hardly acknowledged in most African national legislation, it continues to dominate land management in practice, particularly in rural areas and amongst poor and marginalized groups. From what Bruce (1998:10) calls a *loose and debatable classification*, three categories of community-based systems emerge at the hands of national legislation in Sub-Saharan Africa. The first category encloses countries that features national policies that largely ignore the issue of community-based tenure (e.g. Benin, Cape Verde, Gabon, Cote d'Ivoire, Nigeria); the second category is composed of those countries with national policies that explicitly mention customary tenure systems without offering any substantial sanction or protection of them (e.g. Central African Republic, Chad, Mali, Togo and Niger). Finally, the third category includes a group of countries whose policies have most often evolved from their former grounding in the British colonial legal system considered to be more tolerant of customary systems than the French. The countries in this category vest land management authority and sometimes property rights in customary authorities within defined zones. These "tribal authority lands" continue to exist in Liberia, Sierra Leone, Gambia, and Ghana.

In sum, legislation in most African countries remains generally based on legal principles and a conception of law, which are profoundly alien to customary principles and landholding practices of rural communities. This dichotomy in terms of legal pluralism creates very often situations where incompatible rules overlap. For Lavigne-Delville *et al* (2000:5), the real problems encountered by the African tenure systems arise more from the multiplicity of arbitration authorities. The unclear links between authorities and the definition of their duty leads to considerable uncertainty over who may deliver rulings. This added to the complexity of interrelated legal texts, which are unfamiliar and poorly understood even by members of the local administration, and by the absence of clear political directives. As a triggering solution to equity and sustainability of land resources, most surveys and expert studies advocate decentralized management of land and resources, in order to restore decision-making powers to local communities (*ibid*).

2.4. Realities of Decentralized Land Management in Africa

In study done on fifteen African countries, Rochegude (2002) made a conclusion that none of them made land management one of the transferred competences to decentralized administration, except an attempt from Mali, Senegal and recently Niger. Although, the management of land resources is one the major source of income at local level, central government remains the only master under the notion of *national domain* inherited from the colonial tenure system. Countries like Chad go further in their legitimation of the State with the pretext of ensuring the national stability as land is easily in the midst of conflicts between communities and individuals.

Without having full jurisdiction on land resources, decentralization poses a new challenge for local institutions to generate incomes in support to the development and the maintenance of

public infrastructures. In fact, the control over land resources constitutes the essence of decentralization as it gives local institutions opportunities to perform their basic competences like land use planning and provision of public infrastructures (Hilhorst, 2010). Beside this argument of functionality, land management represents also an important source for local investment if communities are endowed with power to provide land and the possibility to charge any related activities. However, if unplanned some decisions can be detrimental to rural livelihoods, whereas the need for better formalization of access to land and natural resources. This will assist rural poor in protecting their assets, improve tenure security, and reduce land-related conflicts.

Paradoxically, texts on decentralization across the African continent devolve land use planning, natural resources and environmental management to local governments as part of their mandate. But, these prerogatives tend to be weakly developed, both legally and with respect to capacity building and methodology. Leroy *et al.* (1996) argue that the reason behind the reluctance of many African countries to devolve the management of land resources reside in the success of the theory “the tragedy of the commons” that put sustainability of resources at risk when access is opened to all members of the community. However, this theory does not separate the notion of common resources from open-access. The existence of local institutions proves that any access to common resources is regulated through a certain number of considerations. In the present context, these considerations have to be formalized in order to work efficiently. For that reason, Central government needs to concentrate on policy development in giving guidance and advice to local governments, rather than working on implementation.

The capacity of local governments to operate depends on the balance achieved between what is stated in the law and the mandates and resources that are actually transferred (Hilhorst, 2010). Often, central governments transfer only partially human and financial resources to local governments. In countries like Rwanda and Uganda, local governments are allocated a part of the overall budget/ investment and running costs in line with their respective mandates, while in other countries like Mali, Burkina Faso, Benin and Niger, they receive only a small subsidy for operational costs (*ibid*). This situation affects efficiency on the ground, especially in the case of land administration where services on offer need to be appropriate, accessible and available on a massive scale.

2.5. Best Practices

Most African countries have some good texts on decentralization and land management, but the biggest challenge resides in their application on the ground. However, few good examples subsist among French speaking countries. For decentralization, Mali and Senegal are among the very few countries that put their energy in connecting the dots between theories of French decentralization and the realities of their own social structures. For local land management, the challenge is the coexistence of customary tenure rights and statutory tenure rights for countries

that officially adopt legal pluralism. However, Niger and Benin succeed in developing legal institutions for the management of customary tenure systems that are smooth transition to the formalization of land rights. Although, these countries might encounter obstacles and/or failures in the implementation of their initiatives, they already set good example for many other countries.

2.5.1. Participative Municipal Restructuring in Mali

Before colonization, Mali was one of the rare countries in the region to have very structured government institutions according to number of historical documents cited by Coulibaly (2010). The root of this political stability resided in the autonomous functioning of local institutions during the eras of great empires (*ibid*). In opposition to many other peoples like the forest-dwelling ones where political organization stopped at village level, the Malian empires injected interdependence and specialization into the social context of heterarhic (multi-centered) political systems (Pringle, 2006:19). Such political structuration at local level and promotion of intercommunity economic activities reflected the major principle of today's decentralization, which is local empowerment. Well aware of this success story, Malian authorities introduced one of the most innovative processes of municipal restructuring in Africa during the 1990's era of decentralization.

The Article 3 of Law N°95-034 of April 12th 1995 regarding the Local Government Code cited by Idelman (2009:3) stipulates that “*when creating a municipality, the primary concern should be that it meets the pre-requisites for a practicable territorial and human setting. These include inhabitants who wish to live together, in social cohesion, and under economic viability*”. Translating this Article on the ground means that villages are allowed to choose the other villages with which they would like to form a municipality (Jones-Casey et al, 2011:4). Therefore, prior to any process of municipal restructuring, the department of decentralization and deconcentration (MDD) holds public meetings to include local participation in the discussions that would lay down the new boundary of their entity, following five criteria summarized as follow (Idelman, 2009:4):

- Socio-cultural criteria: the need to take account of community cohesion;
- Demographic criteria: a minimum population of 10,000 inhabitants (or an average of 15 villages);
- The villages' distance from and access to the main town in the municipality;
- The economic viability of the municipality;
- Geographic and spatial criteria, including territorial consistency and unity, and “the legacy of previous administrative boundaries”.

While this bottom-up procedure offers the opportunity for local communities to voice their concerns regarding with whom they wish to merge, it gives little time to fully understand the reform and consequently to appropriate it. In fact, some villages' requests to form

municipalities have been rejected for fear that conflicts might emerge between different social groups (Jones-Casey et al, 2011:4). Many other municipalities considered too small are prompted to merge with others despite the wishes of local populations (*ibid*). The laws governing the process of decentralization in Mali are too difficult to interpret because of the enormous diversity of the country, and therefore even harder to implement.

2.5.2. Decentralized Land Management in Niger

Located in Western Africa right across the Sahara Desert, Niger is one of the poorest countries in the world. The country knows recurrent droughts and food shortage that make it highly dependent on external support. In an attempt to solve some of these major issues, Niger held several discussions about land tenure issues in the early 1980's. Through several national-level conferences, the discussions involved political and administrative authorities, State's technical services, customary leaders, and representatives of different categories of farmers. These conferences helped in identifying some of the key issues in the management of land and natural resources such as: the reduction of pastoral areas, the rarefaction and degradation of farmable lands, land tenure insecurity and a risk of widespread land disputes (Jamart 2010).

In 1989, a cross-departmental committee was appointed to consider all the identified key issues in a draft of a new land policy for Niger. The draft in form of ordinance put the basis for one ambitious land policy that would curb environmental degradation and conflicts about access to land resources. In March 1993, the Ordinance was laid and laid the foundations for a Nigerien land policy for the rural world, known as the "Rural Code". The first Article set the following objectives: *"to define a legal framework for agricultural, forestry and pastoral activities, in the perspective of land management and planning, of environmental protection and human advancement"* and to *"protect rural actors by recognizing their rights, and to promote development through a rational organization of the rural world"*. In order for these goals to be achieved, the Rural Code is endowed with three principal missions:

- To define and register all existing rights over land and natural resources
- To register land transactions and rights transfers
- To act as a mediator in disputes over land and natural resources governance.

The Rural Code represents a fairly unique instrument for land tenure regulation and natural resources management in the context of African Legal Pluralism. Unlike many countries that only seek to modify the texts of their land laws, Nigerien people throughout a process that lasted for more than a decade, were given the opportunity to voice their concerns about land-related activities at both village and national levels. While promoting a participatory approach that includes women, youth and minorities, the Rural Code aligns its vision with the formalization of customary law without challenging it. Traditional authorities still have an important role in the implementation process of Rural Code, as they are presidents of commissions in their respective entities. However, the functioning of the different commissions

includes a wide range of stakeholders that contribute in counterbalancing the traditional supremacy.

The Rural Code is composed of land commissions at different decentralized administrative levels: Regions, Departments, Municipalities and Villages. Prevention and control efforts done by these various commissions have considerably reduced the number of land disputes and lessened violence. In quite number of regions, the land commissions have worked with local populations to identify and demarcate share resources such as pastoral enclaves, ponds, and transhumance routes. These identifications and markings have greatly helped in preventing many conflicts related for example to encroachment of land dedicated to stockbreeding and damage by flocks in agricultural areas. Also, in pastoral areas, efforts conducted by the commissions have contributed in reducing encroachment of perennial fields. Twenty years after its inception in 1993, the Rural Code remains one of the best examples that Africa can offer in terms of inclusive land management. However, the challenges encountered on the ground and those ahead called for a greater consideration.

The Rural Code was designed in theory through a participatory approach with the organization of national forums that brought together representatives of all land users. Knowing that civil society did not exist in any form during these national discussions, traditional authorities were the key participants in drafting the guiding principles of the Rural Code. Even if local associations took part later in the implementation, the sought counterbalancing force of land commissions continually fail to be properly addressed. For any land related issues, villagers continue to turn to religious and customary leaders rather to land commissions. Another crucial challenge to the Rural Code is the lack of resources. In fact, the institution solely relies on external donors in the implementation of texts and commissions. Land commissions lack basic material, office buildings and equipment, but also funding to carry out awareness raising activities or field visits. As part of the celebration of its twentieth anniversary in 2013, the Rural Code conducted field diagnostics to help rethink actions to be held.

2.6. Discussion

Prior to the imperialism that took place in the late 19th century preceded by the slave trade, African communities have their own structural organization. Impacted by the different forms of interference from the settlers, these structural organizations reflected over the years quite some similarities. The influences of colonization still prevail, and following the footsteps of the formal colonial empire continues to dictate most of African administration systems. It poses the question to know whether the thirst for change in forms of decentralization and/or new land administration is truly triggered from countries' own perspective. Countries like Mali and Senegal show some good examples in the sense that even if their decentralized administration is inspired by the French societal organization, the implementation on the ground gives consideration to a certain number of realities.

Niger and Benin continue to be the very few best examples in terms of restructuration of land administration across the African French speaking countries in the Sub-Saharan Africa. Putting together, the approaches in the two countries constitute the ideal solution for the integration of the different tenure systems, both in rural and urban entities. Niger has the most comprehensive texts on rural land administration, while it lacks implementation on the field. Benin on the other side is very far in the implementation of rural land administration across the country, but it lacks clear definition of the mission that should follow the implementation of structures and the developed materials.

Chapter Three: Theoretical Framework

3.1. Introduction

Human beings have generally preconceived notions even knowing a little about a topic. In doing research, these fundamental beliefs affect the way data are analyzed based on previous experiences and studies, as they constitute a framework of theories. Traditionally, authors develop theories by combining observations from previous literature, common sense and experiences (Eisenhardt, 1989:532). Theoretical framework is then built to guide a research, in determining what data need to be measured, and what relationships exist between the theories and the practices.

The objective of this chapter is to build an understanding of the main theories behind the research topic, in order to construct the conceptual framework. Enemark (2005), in developing the paradigm of land management, states sustainable development as the main target of putting land resources into good use. Therefore, the major theories that will guide this research are decentralization, land management, tenure security and good land governance. Land management is the core element of this study, while decentralization and good land governance define the context in which it operates, and tenure security as one major expected outcome.

3.2. Decentralization

The idea that decentralization can bring sustainable development resides in the conception that when people are given the opportunity to implement actions according to their needs, they are more responsive in addressing local issues and more open for collaboration with central administrations. In Africa, decentralization came also as a proof for a transition towards more democratic political system. Poulin (2004:3), in his analysis of different decentralization movements in developing countries, came across various reasons behind the adoption of the concept:

- The demand for participation of population calls for a transfer of powers to communities at regional and local levels. This demand assumes that sub-national governments are much closer to populations;
- The failure of central governments in addressing efficiently socio-economic development;
- The assumption that citizens will invest more diligently in support of activities developed and implemented at local level, especially when involved in the process;
- Decentralization will trigger competitiveness among local governments and therefore, will encourage innovation;
- The state as a whole will gain legitimacy, since citizens will have more trust in their officials and will be more actively involved in the betterment of their community, etc.

Other positive reasons behind decentralization exist, but the overall consideration falls into the spectrum of local democracy and local development as triggering elements for poverty alleviation in Sub-Saharan African countries. “*From the perspective of ordinary citizens, the central government is often too far away from the experiences of their life to meet the needs and problems the citizen faces every day*” (Kälin 1999:46).

3.2.1. Different Forms of Decentralization

The theory of decentralization goes from the principle that it triggers local and participative development through a certain degree of power transferred to local entities recognized legally or constitutionally (Diallo, 2008). For Basta (1999:29), decentralization is not an absolute concept but rather relative, which can be understood only in opposition to different normative or previous existing models. Therefore, when addressing the structures and processes of decentralization, the analytical and empirical approaches are to be combined, taking two facts equally into account (*ibid*):

- (a) When referred to governmental structure and relating functions, the term “decentralization” describes development, (the process of) change from a former to a new institutional set-up;
- (b) Any categorization of decentralization trends faces the problem of how to conceptually incorporate the influence of the specificity of given local context.

Different types of decentralization should be distinguished because they have different characteristics, policy implications, and conditions for success. Rondinelli (1989) developed four main types widely used in the literature and adopted by the World Bank in its different development projects. Falleti (2004:3-4) recollects these different variants of decentralization according to the type of authority devolved:

Administrative decentralization seeks to redistribute administration and delivery of social services such as health, education, and housing to subnational governments. This category of decentralization is performed commonly under three forms:

- Deconcentration, a relocation of public services delivery closer to the administrated, because central government can merely perform remotely all its duties. This form of decentralization rather tends to reinforce the central power over a real transfer of competences, as long as local authorities are always appointed by the central government and with very low degree of accountability towards the directly impacted populations. Many African nations have experienced deconcentration in times of great monarchies, during the colonial period and in the early post-independence era.
- Delegation, a form of decentralization that transfers the competences for public service delivery to organizations or entities not wholly controlled by the central administration, but accountable under the transferred responsibilities. This form of decentralization usually prevails when governments seek efficiency in the delivery of public services

such as transportation or any special project. These responsibilities that governments hand to quasi-independent institutions can range from project design to the implementation and even after.

- Devolution, a form of decentralization that offers local government more prerogatives in responding to local needs. On the opposite side of deconcentration, this form of decentralization puts local authorities in a position of accountability towards the administrated populations rather than the central government. These local governments with a corporate status, have clear and legally recognized geographical boundaries over which they exercise authority and within which they perform public functions. The new wave of decentralization in Sub-Saharan Africa takes more of the essence of devolution, and is usually stressed with local elections.

Fiscal decentralization provides a set of policies aimed to increase the revenues or fiscal autonomy of subnational governments. In order for local governments and private organizations to carry out their prerogatives effectively, they need a consequent budget, either raised locally and/or transferred from the central government, as well as the authority to make decisions about expenditures. Under fiscal decentralization, different forms of income generation exist:

- Self-financing or cost recovery through user charges;
- Co-financing or co-production arrangements through which users participate in providing services and infrastructures through monetary or labor contributions;
- Expansion of local revenues through property or sales taxes or indirect charges;
- Intergovernmental transfers that shift general revenues from taxes collected by the central government to local governments for general or specific uses;
- Authorization of municipal borrowing and the mobilization of either national or local government resources through loan guarantees.

Political decentralization aims to give citizens or their elected representatives more power in public decision-making. Its framework provides representative government in support to democratization by giving citizens, or their representatives, more influence in the formulation and implementation of policies. The concept implies that the selection of representatives from local electoral constituency allows citizens to know better their political representatives and allows elected officials to know better the needs and desires of their constituents. Political decentralization often requires constitutional or statutory reforms, creation of local political units, and the encouragement of effective public interest groups.

Finally, **market decentralization (economic decentralization)** stipulates that allocation of resources driven by demand increases the efficiency of the service. Market decentralization transfers economic functions or entities that have been exclusively within the capacity of the public sphere to the private sector. The major benefits of this category of decentralization is that

the allocation of resources becomes a more direct process between the demanders and the suppliers, which has two major positive effects, the reduction of information bias, and the possibility of the demander for direct evaluation of the service. Three forms of market decentralization can be identified as followed:

- Privatization, that leaves the provision of goods and services entirely to the free operation of the market in which government and private sector cooperate to provide services or infrastructures. Quite often privatization is not really considered as being equivalent to decentralization, but rather an economic process.
- Deregulation, which reduces the legal constraints on private participation in service provision or allows competition among private suppliers for services that in the past had been provided by the government or by regulated monopolies.
- Democratization, that involves either state-owned or privately owned enterprises being placed in the hands of their employees who then become part owners of the enterprises by participating in them. This can apply both to commercial cooperatives run for profit and to public services; which could be either employee-owned or under municipal ownership.

Although this classification of decentralization is broadly used and adopted by the World Bank institutions, authors like Hossain (2004:3), Lim and Fritzen (2006:2) disclose a slight different classification putting devolution as a political decentralization rather than administrative, because it operates within a context of democratization where local authorities are chosen through elections. However, as explained by Tubunda and Galand (cited by Hossain, 2004:3), the nature of power transfer within devolution is political but the approach remains territorial. In fact, most of the countries involved with decentralization in the last decades have proceeded in first position with the territorial consideration, and elections being held several years later.

3.2.2. Decentralization Currently Adopted by Most African Countries

Ki-Zerbo (1982) in his analysis of African history recalled the dynamic structures of such great empires like the Kanem Bornou and the Mali, where decentralization played a great role in the politico-administrative life. Taking the example of the empire of Mali during the time of the emperor Mahmoud Kati around the 13th Century, where over 400 cities have to be governed, Ki-Zerbo (1982:140) uses the image of a mango fruit to explain how the administration worked from the center to the remote entities. The center represented the nucleus and the hardest part of the empire where the emperor had a direct control over all matters. The remote areas on the other hand, were subdivided into provinces then cantons and villages, and were governed by local authorities designated by the emperor (*ibid*). This structuration of public administration will later be used by the colonial power, with of course new boundaries and more hierarchical entities.

During the post and colonial eras, although decentralization were part of the public administration, the accountability of local authorities were higher toward the central administration rather than toward the population. Most French writers do not consider this form of public administration within the scope of decentralization, as it barely appears in the literature. In fact, very few articles in French make a clear distinction between the different forms of administrative decentralization. The existing difference is only made between deconcentration and devolution. More importantly, the word “*dévolution*” in French has a different connotation according to the most popular dictionary, *Larousse*: “**dévolution** means transference of rights or assets from one person to another (particularly when talking about inheritance); it is also defined as a right which, in certain countries, used to give the succession only to the children born of a first marriage”.

Although the idea of transfer is portrayed in the definition portrayed by Larousse, it does not cover the context of public administration like in English. According to the encyclopedia *Merriam-Webster*, devolution is defined as being “the transference (as of rights, powers, property, or responsibility) to another, especially: the surrender of powers to local authorities by a central government”. Also, when Larousse and other dictionaries translate the word devolution from English to French, they refer to it as “decentralization” or “delegation” within the political or administrative context. As a consequence, all French-speaking countries that recently enter into administrative reform, rather mention “*decentralization*” in their constitutions as being the new approach in opposition to deconcentration, although the widely adopted form has all the ingredients of devolution.

The situation is however, not only specific to French-speaking countries and francophone writers. For many authors like Rondinelli (1986) and Lim (2006), the term decentralization refers essentially to devolution, especially when it relates its content to public administration. Others like Nyanjom (2011) make a clear distinction between decentralization and devolution. However, Nyanjom (*ibid*) analysis refers to the decentralization process in Kenya where devolution is clearly identified in the chapter 11 of the constitution of 2010 (Nyanjom 2011:20). Nevertheless, this consideration of decentralization in its global definition found answer in the motivation behind the new administration approach, especially in Sub-Saharan Africa, because it pictures a lot more different image of what has been achieved so far in terms of local consideration.

Advocates of this new approach argue that the concept could help accelerate economic development, increase political accountability, and enhance public participation in governance; and when pursued appropriately, decentralization could increase the financial resources of local governments and provide the flexibility to respond effectively to local needs and demands (Cheema and Rondinelli, 2007:7). Whether the earlier forms of decentralization were not implemented correctly or that they were misunderstood, Cheema and Rondinelli (*ibid*) argue that only devolution of powers and resources can provide a solid foundation to local

governments and makes the current scheme work. In other words, the administrative form should be devolution, but in order for it to work efficiently it needs elements from all the other forms or types of decentralization. Therefore, calling it decentralization makes the current trend of public administration more relevant than attributing just one category, because it has some elements from each type of decentralization.

- Administrative decentralization: because it deals with territorial configuration, as it defines local competences within a given boundary
- Political decentralization: as it seeks democratization and local involvement through local elected authorities
- Fiscal decentralization: for it needs to provide tools for local income generating
- Market or economic decentralization: since local entities work like corporates that need to generate benefit from the exploitation of local resources

3.2.3. Issues Raised by the Adoption of Decentralization in Africa

Likewise any approach, decentralization has its disadvantages and obstacles to its efficient development (Rondinelli, 1986:5):

- Decentralization can create nuclei of political opposition to central government policies and programs
- It can lead to greater inequity in the distribution of resources and services if decentralized units are not concerned about equitable distribution
- Programs and services can be “captured” by economic and political elite at local level who appropriate benefits to themselves
- The lack of financial resources and management skills at local level may lead to inefficient or ineffective service delivery
- Local officials or organizations may be hesitant or reluctant to take initiative in performing decentralized functions
- Local beneficiaries may not be organized strongly enough to participate effectively or protect their interests in planning and decision-making, etc.

In consideration of what could hinder or blur the expected results of decentralization, Kālin (1999) and Rondinelli (1986) enumerates some of the factors that need to be taken into account (Table 3.1).

Table 3.1: Factors Supporting the Successful Implementation of Decentralized Service Delivery Programs

Strong Political Will and Partnership	Strong Legal Framework	Accountability and Transparency	Secure Resources and Autonomy
<p>-Strong political commitment and support from national leaders to the transfer of authority and responsibility to lower levels</p> <p>-Acceptance by political leaders of participation in planning and management by groups and organizations outside of their direct control</p> <p>-Strong administrative and technical capacity within central government to provide support and guidance to decentralized service delivery units</p>	<p>-Appropriate allocation of functions between center and decentralized units</p> <p>-Concise and definitive decentralization laws, regulations and directives that outline clearly the allocation of functions</p> <p>-Strong communications linkages between center and decentralized units</p> <p>-Diverse supporting institutions at local level for carrying out decentralized activities</p>	<p>-Creation of minimum level of trust and respect between government officials and citizens in planning and managing service delivery programs</p> <p>-Creation and maintenance of strong leadership in local administrative units and nongovernmental organizations to sustain service delivery</p>	<p>-Transfer of sufficient authority for decentralized units to carry out functions</p> <p>-Transfer of sufficient financial resources or authority to raise revenues to decentralized units</p> <p>-Training and other programs for developing human resource capabilities in decentralized units</p> <p>-Adequate physical infrastructure at local level to deliver services effectively</p>

Sources: Rondinelli (1986:6) and Kailin (1999:57-60)

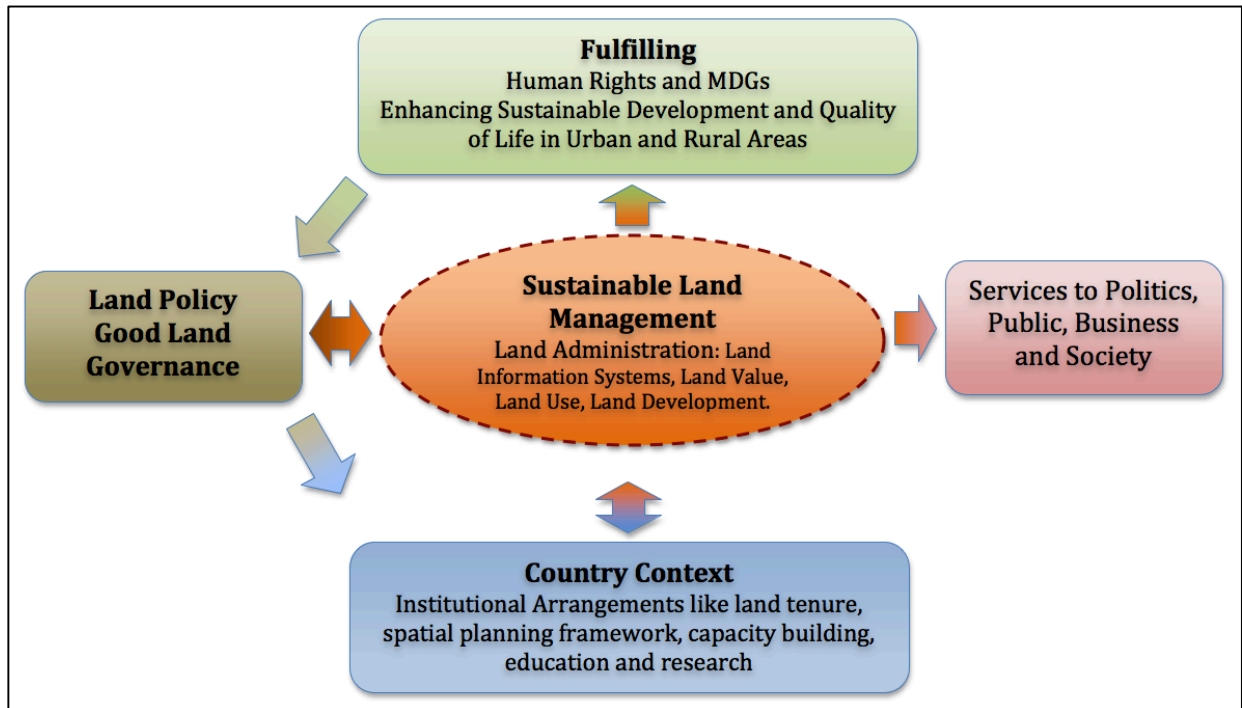
3.3. Land Management

Although science and some of the major religions (Judaism, Christianity and Islam) may disagree on the origin of the planet earth, they all acknowledge the tight relationship humankind has always had with land since the beginning of time. Whether in the Garden of Eden or in the prehistoric jungle, man has made land as his ultimate source of livelihood, developing all sorts of strategies to make good use of it. UN-ECE (1996) defines those strategies of putting land resources to good effect as being land management, and it covers all activities from environmental and economic perspectives. This very broad conception of land management can include farming, mineral extraction, property and estate management, and the physical planning of towns and the countryside. It embraces such matters as (*ibid*):

- The management of land resources such as forestry, soils, or agriculture;
- The development and management of utilities and services;
- The formation and implementation of land-use policies;
- Environmental impact assessment; and
- The monitoring of all activities on land that affect the best use of that land.

All these considerations put land management within a wide range of actions, and in order to successfully meet the needs of competing demands for the use of the land's resources, more effective and efficient ways of using them must be adopted. Although sustainable land development and land management are among the greatest challenges and tasks of the new millennium, they are simply important pre-requisites for as many people as possible to live in conditions of the greatest freedom and self-determination, and thus make important contributions to this (Magel, 2001:1).

Figure 3.1: Land Management Aiming at Sustainable Development



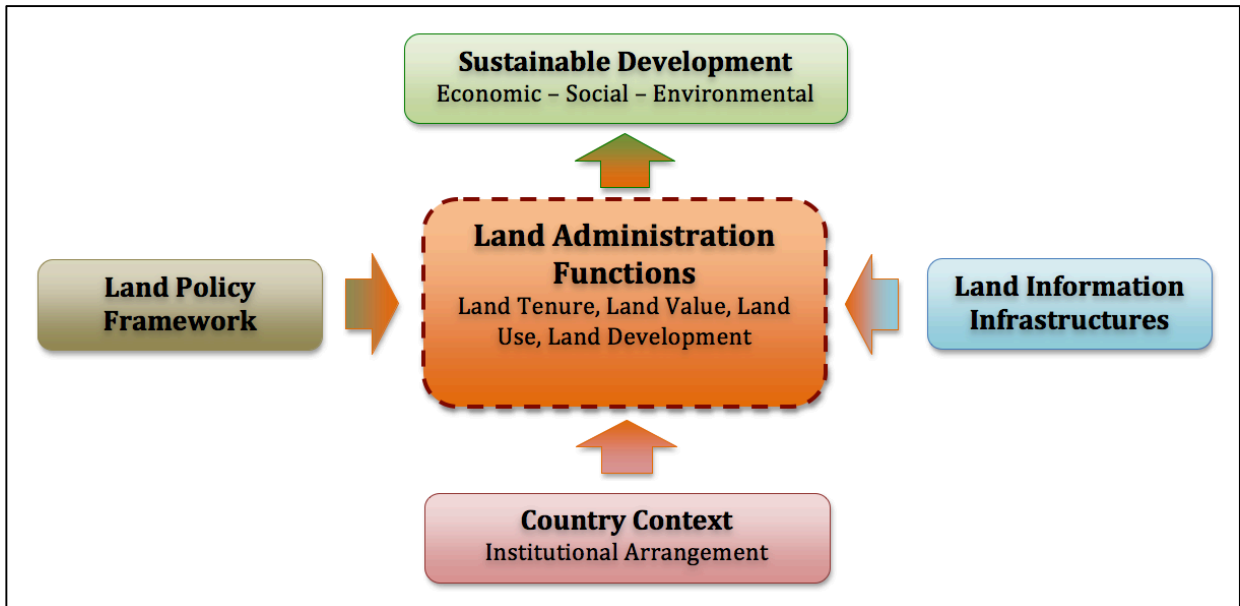
Source: Magel (2006) as illustrated by Author

Addressing the challenge of sustainable development in both rural and urban areas needs consideration for a sustainable land management based on the context of each country through the development of land policy embedded in good land governance. The administration of this complex approach of land management in order to provide services to politics, business and society, needs tools like land information systems, land value, land use and land development. In fact, for Magel (2006:5) *“The goal of integrated land management is to optimize the combination of economic and environmental benefits to society that are provided by the land’s soil, mineral, and water resources, while preserving or increasing the capability of the land to provide these and other benefits in the future.”*

In a much broader approach, Enemark develop a paradigm of land management based on the principle that it underpins the distribution and management of a key asset of any society that is land (Deininger *et al*, 2010). The land management paradigm allows the understanding of the role of land administration functions (land tenure, land value, land use, and land development)

and how land administration institutions relate to the historical circumstances of a country and its policy decisions (*ibid*).

Figure 3.2: Paradigm of Land Management



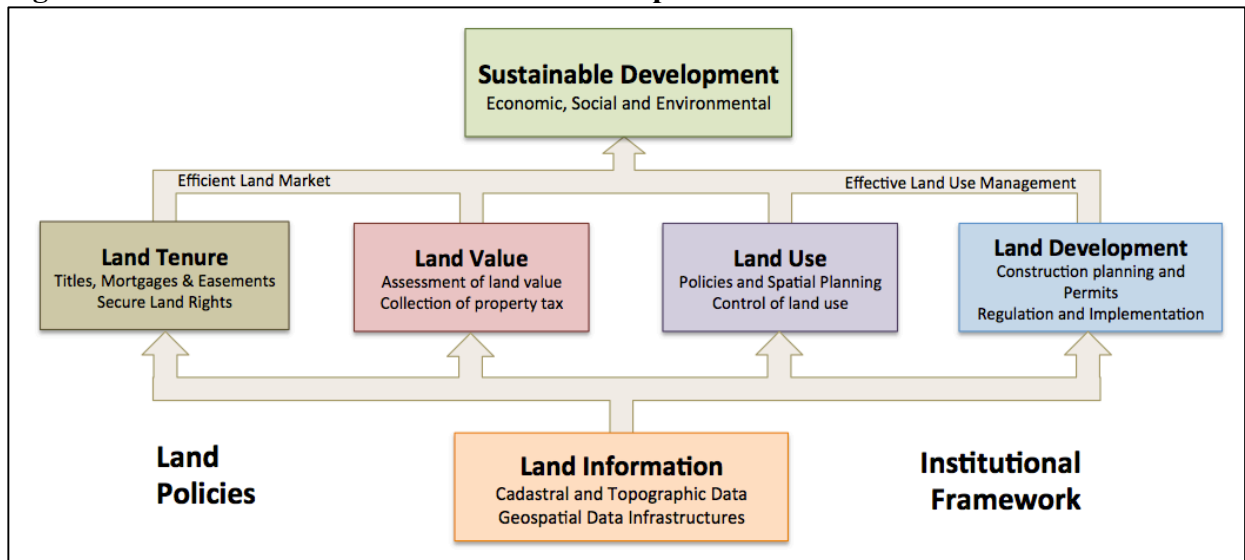
Source: Enemark *et al* (2005:3)

3.3.1. Land Administration

Land administration is considered here to be the operational component of this paradigm. Its functions include the areas of land tenure (securing and transferring rights in land and natural resources); land value (valuation and taxation of land and properties); land use (planning and control of the use of land and natural resources); and land development (implementing utilities, infrastructure and construction planning). In order to facilitate the functions of land administration, appropriate land information infrastructures are needed. Land information infrastructures include cadastral and topographic datasets and they provide access to complete and up-to-date information about the built and the natural environment.

According to UN-ECE (1996:14), the term “land administration” refers to the processes of recording and disseminating information about the ownership, value and use of land and its associated resources. Such processes include the determination or adjudication of rights and other attributes of land, the survey and description of these, their detailed documentation and the provision of relevant information about the land and any property attached to it. For scholars like Dale (2000:32), land administration of nowadays has its prime objective as to facilitate operations of land markets. However, this assertion hardly finds relevance in developing countries, where land markets are not improved as in developed countries.

Figure 3.3: A Global Land Administration Perspective



Source: Enemark (2005:7)

Although communities around the world have come to adopt land as a tradable commodity, the context in many poor countries presents a rather different priority for land administration to focus on, which is effective access to secured property rights. Enemark (*ibid*) for instance, remarks that land administration supports efficient land markets and are, at the same time concerned with the administration of land as a natural resource to ensure its sustainable development, through an extensive range of systems and processes to administer:

- ***Holding of rights to land***: is the juridical component of land administration and places greatest emphasis on the allocation and registration of rights in land. It also addresses the delimitation of boundaries of parcels for which the rights are allocated; the transfer from one party to another through sale, lease, loan, gift or inheritance; and the adjudication of doubts and disputes regarding rights and parcel boundaries.
- ***Economic aspects of land***: is also the fiscal component, which is concerned with the economic utility of land. It addresses the gathering of revenues through forms of land valuation and taxation, and the adjudication of land valuation and taxation disputes.
- ***Control of land use***: or the regulatory component of land administration with a focus on the development and use of land. It includes land-use planning and enforcement, as well as the adjudication of land use conflicts.

It results from this set of procedures to manage information on rights and their procedures that four principal and interdependent commodities are of interest under land administration: the tenure, value, use, and development of the land, within the overall context of land resource management (FIG, 2010:7), as described in Figure 3.2.

a. Land Tenure: is the relationship, whether formally or customarily defined, among people, as individuals or groups, with respect to land. Around the globe, societies have developed rules

and institutions to regulate behavior on access to land. These regulations define how access is granted to rights to use, control, and transfer land, as well as associated responsibilities and restraints. In other words, land tenure systems determine who can use what resources for how long, and under what conditions. The most common categorization is often identified as followed (FIG 2010:8):

- Private: where rights are assigned to individual, group of people, or corporate body such as commercial entity or non-profit organization.
- Communal: where each member within a community has a right to use independently the holdings of the community (common pasture, forest, etc.).
- Open access: where rights are not assigned to anyone and no one can be excluded, in difference to communal systems where non-members of the community are excluded from using the common areas.
- State: where property rights are assigned to authorities from the public sector, whether at a central or decentralized level of government.

b. Land Value: covers the assessment of the value of land and properties; the gathering of revenues through taxation; and the management and adjudication of land valuation and taxation disputes. Verheye (2000) argues that the material value of a land depends upon the goods and services emanating from it. This value does not necessarily come from the land in the strict sense, but from the property as a whole including buildings and natural components. Therefore, the nature of the earnings to be expected from land differs between rural and urban contexts (*ibid*).

Within the rural context, land holds a primarily role for crop production and a source for food supply in general, even tough it also provides space for living, construction and the development of a variety of social activities. In urban or suburban environment, the expected earnings from land are mainly linked to the type and nature of buildings that can be constructed on the land, and the services that can be generated from them: business, commerce, residential, public services, etc.

c. Land-Use: refers to the purpose to which land is committed, including the production of goods (such as crops, timber and manufactures) and services (such as defense, recreation, biodiversity and natural resources protection). Some land uses, such as cropping, have a characteristic land cover pattern, and frequently appear in land cover classifications. Land cover refers to the observed physical surface of the earth, including various combinations of vegetation types, soils, exposed rocks, water bodies (Lesslie, 2004:1). However, this classification tries to not discriminate other land uses. For example, where land cover is woodland, land use may be timber production or nature conservation.

The mission of land administration regarding land use is to provide control through adoption of planning policies and land-use regulations at national, regional/federal, and local levels; the enforcement of land-use regulations; and the management and adjudication of land-use conflicts. The motivation behind land use planning reflects the scarcity of the resource over the time. In fact, FAO (1993) considers that the demands for arable land, grazing, forestry, wildlife, tourism and urban development are greater than the land resources available. These demands become more pressing every year, especially in developing countries. Even where land is still plentiful, many people may have inadequate access to it or to the benefits from its use.

Therefore, land-use planning comes as a systematic assessment of land and the resources tied to it, in order to select and adopt the best options for its use. The motivation behind it reflects the need for improved management of land use dictated by changing circumstances. Land use planning aims to select and adapt those land uses that will best meet the needs of the people while safeguarding resources for the future (*ibid*).

d. Land Development: refers to the application of resources to improve land that should enable it to be used more efficiently, in both rural and urban circumscriptions. These resources usually include capital (constructing buildings and other public infrastructures), labour (clearing or draining land for agriculture) or enterprise (securing or revising planning permissions). In general, land development results in increased value of the land, and in some circumstances this may be referred to as betterment and may be subject to a special tax (FAO 1999:67).

Enemark (2005:8) argues that all these commodities within the scope of land administration inevitably interrelated to each other: “*These interrelations appear through the fact that the actual conceptual, economic and physical uses of land and properties influence land values. Land values are also influenced by the possible future use of land determined through zoning, land use planning regulations, and permit granting processes. And the land use planning and policies will, of course, determine and regulate future land development*”.

3.3.2. Land Information Systems

Providing a general definition of Land Information Systems (LIS) may not be relevant under all contexts, because over the years each country develops according to its local realities what could be part of its LIS. However, the International Federation of Surveyors (FIG) provides an overall understanding of a LIS by defining it as “*a tool for legal, administrative and economic decision-making and an aid for planning and development*” (UN-ECE 1996:60). LIS consist of two major parts: a spatially referenced database on one hand, and procedures and techniques used in data collection, updating, processing and distribution on the other (*ibid*). Although different approaches can be found on the ground, the main purpose behind land information system remains the provision of the information necessary to achieving sustainable land management (Enemark, 2004).

A system of information generally consists of human and technical resources together with procedures applied to the collection and, storage, retrieval, dissemination and use of information (UN-ECE 1996:60). In relation to land, the most important element developed for the system is land parcel, and is considered to be the basis for building adequate land information systems (Enemark 2005:4). This consideration links LIS to cadastre, defined by the FIG (1995) to be a “*parcel based and up-to-date land information system containing a record of interests in land (e.g. rights, restrictions and responsibilities)*”. Because of the differences that exist in the form of cadastre in relation to a country context, Enemark (2005) offers an approach for an appellation of “cadastral systems” or “cadastral infrastructures”, rather than simply “cadastre”. These systems or infrastructures take into account the identification of land parcels, the registration of land rights, the valuation and taxation of land and property, and the use of land in the short and long term (*ibid*).

If considering the definition given by Enemark (2005), land registration constitutes a sole part of cadastral systems. In fact, Leonard and Longbottom (2000:33) define land register as “*any officially organized and regularly maintained written record of land title or landholding rights, as well as the book containing such records*”. However, authors like Zevenbergen (2004) consider that the difference between the two can be relevant when cadastre is seen only under the role of inventorying data concerning properties based on a survey of their boundaries, and land registration as the recording process of these data. Then, the two appear as two interrelated elements, which constitute the core of the land administration system.

3.3.2.1. Cadastral systems

The notion of cadastre includes basically “a geometric description of land parcels linked to other records describing the nature of the interests, and ownership or control of those interests, and often the value of the parcel and its improvements” (Leonard and Longbottom, 2000:33). Although the concept remains difficult to identify as it depends on the origin, history and cultural development, Henssen and Williamson (1990) consider that the development of any cadastral systems calls for its central element, which is land parcel. Regardless of its application, a land parcel can be defined as a continuous area of land within which unique and homogeneous interests are recognized (*ibid*).

Parcels are usually surveyed and mapped by a closed line and indicated by a number (parcel identifier) on the map. The parcel identifier connects the legal part with the cartographic and surveying component. The outlines or boundaries of the parcel and its identifier are normally shown on large scale maps which, together with registers, may show for each separate property the nature, size, value and legal rights associated with the parcel (Zevenbergen, 2004:12). In opposition to land registration, the task of cadastre can be summarized as mainly geometrically orientated with fixing and representing a parcel.

Throughout history the main purpose of cadaster has been taxation of land (fiscal cadaster), but it has improved in the last centuries in Europe with the introduction of a juridical sometimes called legal aspect. The relation between humankind and land with implication on cadastral systems in all countries is dynamic, and the most recent examples are current world concerns of environmental management, sustainable development and social justice (Enemark 2004:6). Likewise, the role of the cadastral systems is also changing over time, since it seeks to underpin these societal development trends.

Table 3.2: Main Phases in Western Humankind and its application for Cadastre

Main Phases	Feudalism to Late 1700's	Industrial Revolution (1800's to 1950)	Post World War II Reconstruction	Information Revolution (1980's Onwards)
Humankind to land relationships	<i>Land = Wealth</i>	<i>Land = Commodity</i> as well as wealth	<i>Land = Scarce Resource</i> as well as Wealth and Commodity	<i>Land = Community Scarce Resource</i> as well as Wealth and Commodity
Implications on Cadastre	Fiscal	Fiscal/Juridical	Managerial	Multi-Purpose

Source: Williamson (2000:8)

Considering the case of the Western world, this dynamic interaction may be described in four phases as shown in the Table 3.1. The conception of land has evolved from the simple source of wealth to a community resource endangered by human behavior and the change in the climate. The role of the cadastral systems has then evolved to be serving the need for comprehensive information regarding the combination of land-use and property issues, know as “multi-purpose cadastre” (*ibid*). However, the cadastral systems of future will need to manage a growing complexity of rights, restrictions and responsibilities over land due to a greater awareness of environmental and social imperatives, as distinct from a more traditional focus on economic imperatives (Williamson 2000:8).

3.3.2.2. Land Registration

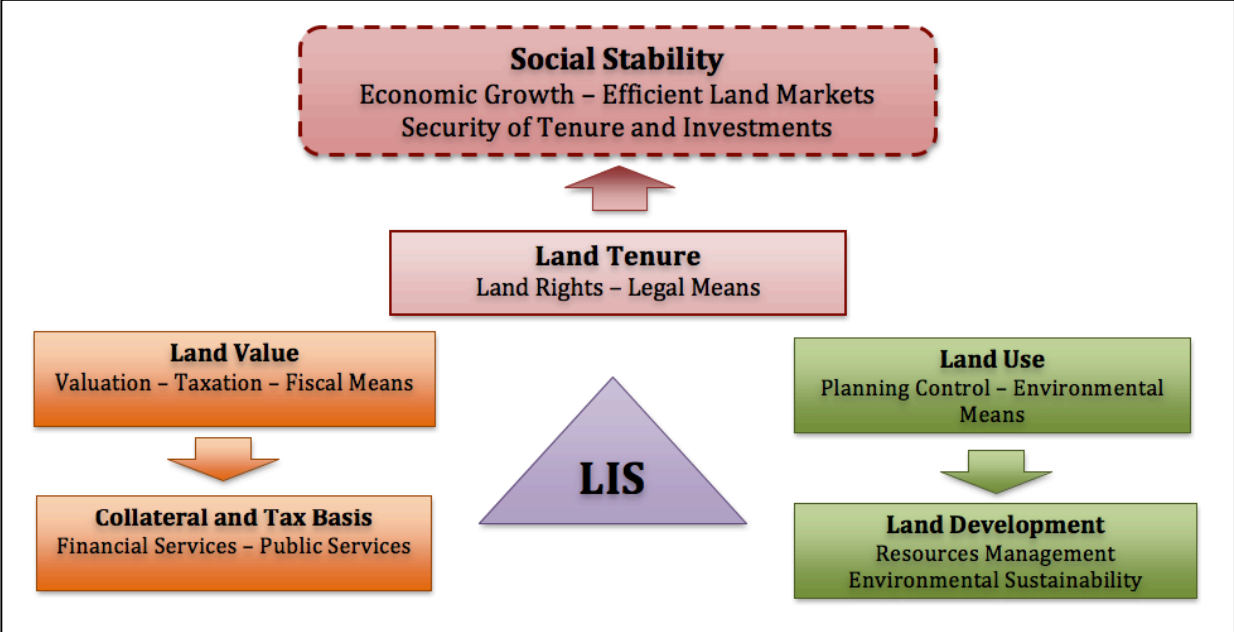
Leonard and Longbottom (2000:33) state: “*the aim of land registration is to guarantee the security of property transactions and to protect the owner from encroachment by third parties*”. The location and the extent of the estate in question as well as the nature of rights affecting it are defined and recorded in the land register (*ibid*). In numerous of land registration systems around the globe, land registry has the cadastral parcel number as any entry, and each parcel has a page in the register where ownership, easements, and mortgages are recorded. As well as to clarify the rights held in land, registration is often proposed in order to promote formal credit schemes using land as collateral or to facilitate land taxation (FIG, 1995). Like the cadastral systems, different organizations of land registration systems exist, and one of them distinguishes static and dynamic systems when considering the structure and processes of land registration Zevenbergen (2004:15).

a. The **static model** of land registration focuses on describing which information is kept, with regard to which objects and with which identifiers. This system is represented by the regularly

used figure that connects owner, right and parcel with three persistent questions: which person holds which parcel with which right. The three elements of the system are interconnected with one central element being the owner. The owner represents an individual or a group of people who are the rightful claimant, and gives the answer to the question ‘who’. The parcel represents a certain part of land that is seen as a property, and gives the answer to the questions ‘where’ (location) and ‘how much’ (size and/or value). The right or title represents a certain legal relation (ownership, leasehold, other form of tenure, etc.) and gives the answer to the question ‘how’.

b. In the **dynamic model** of the system, focus is driven on describing and understanding the main functions, being adjudication of land rights, land transfer and mutation (subdivision or consolidation), where each of the three functions is only useful when the other functions are fulfilled as well Zevenbergen (2004:17). Adjudication is the common form of first registration or land titling. When no written documentation is available, a careful procedure is necessary to inventory all relevant interests that exist and entered in the register. Adjudication can be systematic or sporadic. Land transfer on its side deals with the transfer of rights or change in the parcel unit. In these cases, the information collected through adjudication needs to be kept up-to- date, or it will soon become outdated, and lose its value. Every subsequent transaction that takes place has to be registered. Finally, in most systems of land registration, the new boundaries that subdivision creates will have to be surveyed in order to integrate the modifications. Consequently, if the transfers and subdivisions are not processed effectively for a while, the land registration loses much of its value, and to get it working properly, a form of adjudication would be needed.

Figure 3.4: The Contribution of Land Information Systems in Land Administration



Source: Enemark (2005:5)

Enemark (2005) on his side considers that two basic types of systems are of consideration: the deeds and the titling systems. The deeds registration system is very common in countries like France and Spain, and answer the question “who owns what”. It is mainly used for fiscal purpose with a focus on registering owners’ information in the deeds registry. The titling system however, answers the question “what is owned by who”, and is very common in central European countries, especially in Germany where it has originated. In this system, attention is given to title registration based on cadastral survey, that provides comprehensive information on the property (Williamson 1985).

Whether, cadastral systems and land registration are two separate entities or not, they both compose the land information system which in turn is the basis of land administration. In order to include the aspects data management and collecting processes, the figure 3.3, originally from Enemark (2005:5), which included cadastral systems as the central element, is modified to provide a more holistic and consensual approach. The opportunities to develop land information systems have increased with the recent advances in technology. While the function of land administration is to support the management of real property, including the physical earth and all things attached to it, the function of a land information system is to underpin this process.

3.3.3. Land Policy

A policy can be defined as a conscious effort or plan of actions to guide decisions and field actions. It can be understood as political, managerial, financial and administrative mechanisms arranged to achieve both national goals and specific targets for resource allocation (Enemark and Ahene, 2002:5). The FAO (2012) on its side considers land policy essentially as an expression of one government's perception of the direction to be taken on major issues related to land use with a production and a conservation components. Finally, Deininger (2003:3) underlines the existence of very close links between land policy and economic growth, poverty reduction, and empowerment.

Therefore, ignoring the issues of land policy can jeopardize social peace and sustainable development (*ibid*). For Zimmermann (2007), land policy models are controversial and differ according to many factors (culture, religion, political system, etc.). However, drawn from various sources including international conventions, three principles are considered to be the cornerstone for any development of land policy (*ibid*). These principles address the essential values, which the society seeks to promote and preserve:

Equity – land policies should support equitable solutions for all citizens; an equitable system will deal fairly and impartially with individuals and groups providing non-discriminatory access to records and services.

Efficiency – the ability to formulate policy and implement it efficiently by delivery of services of a high quality; and predictably in accordance with published laws, rules and regulations

Accountability – implementing rule of law (officials perform their duties diligently and objectively without seeking bribes); transparent budgetary mechanisms; delivering services that citizens want and need; and balancing economic, social and environmental needs of present and future generations.

Land policy constitutes the solid ground that sustains the efficient delivery of land management tools. It anticipates on issues and creates pathways in the administration of land resources. In developing countries and sub-Saharan Africa in particular, many factors need consideration to meet sustainable land management. UN-ECA (2010:5-11) in developing a framework and guidelines on land policy in Africa explains how land question facing Africa has its origins in geo-political, economic, social and demographic factors more recently compounded by emerging global and strategic imperatives.

a. The Geographical and Ecological Context

Despite an extensive dependence on agriculture, not much of Africa's land is arable or potentially arable. Large parts of the continent are deserts or semi-arid, and/or facing ecological damage. In many instances, unequal distribution of land has relegated a growing population of small farmers onto marginal areas leading to increasing physiological pressure on land and resource degradation including deforestation. Also, on many other parts, erosive downpours accompanied by flooding and intermittent droughts have also tended to accelerate soil exhaustion and land cover losses.

b. The Political Context

European explorers under the rule of Britain, France, Belgium, Portugal and Spain colonized the majority of African countries. German rule in Cameroon, Tanzania and Namibia was short-lived, while Apartheid South Africa (itself first colonized in the 17th century by Dutch settlers and later by the British) also governed Namibia in the 20th century. These settlers gained control over land through “agreements”, conquests and appropriation. The consolidation of such control and subsequent regulation of acquired lands was effected through the promulgation of a variety of European laws, and establishment of political, administrative and economic management systems, which were grafted onto a diverse range of indigenous economic and cultural practices thus leading to dualistic land tenure and land administration regimes.

Independence from colonial rule was staggered over time from the late 1950's through to the 1990's, with Zimbabwe, Namibia and South Africa coming last. Thus, the processes of nation building, such as, the establishment of independent political systems and the design of policies and development strategies including land reforms and land policy making, were staggered as well. Efforts at the reform of land held by indigenous communities through a variety of measures including individual and group titling or appropriation for cash crop production in a number of African countries however, have been met with limited success as a result of the

persistence of social and cultural attachment to land and, in some cases, contestation and conflict, as has been apparent in number of countries.

These efforts have not, in consequence, adequately restructured the dualistic land holding systems resulting from colonization, nor have they improved government support for the development of the disadvantaged indigenous land tenure systems. Liberal political reforms and especially the demise of military and authoritarian rule and the return to multiparty politics in Africa leading to changes in state-society relationships have in turn created opportunities for new approaches to land policy development. More specifically the overbearing role of the state as owner regulator and user of land resources is being increasingly challenged as land rights communities, non-state regulatory and administrative structures, organs of civil society and other public sector groups demand involvement in land policy development.

Despite efforts at the liberalization of political space, the struggle for land and natural resources remains one of the key factors fuelling instability in Africa. Moreover, these conflicts have, in many countries, led to forced evictions and horrific atrocities (including genocide) against non-combatants, mainly women and children. Thus apart from dealing with issues relating to the redress of historical injustices and the attainment of social equity, land policy development and reform must address the problem of conflict prevention and the restoration of peace and security in Africa.

c. The Economic Context

The fact that most of the African population derives its livelihood and income mainly from farming, livestock production and related activities, underlines the importance of land in development in the continent. Therefore, the contribution of agriculture and livestock production to African economies could be considerably enhanced through radical restructuring of a number of constraints. The first is the relatively low levels of agricultural productivity in terms of land and labor in many countries, which have led to overdependence on imports for food security. The second is equally low levels of mechanization especially in terms of irrigation development resulting in sub-optimal use of the continent's land resources. The third is the persistence of colonial policies that discriminated against the vast majority of African farmers and which continues to inhibit the growth of the small farm sector in terms of investment and infrastructure.

Beyond agriculture, land continues to be a significant factor in Africa's economy through its contribution to other sectors. In many countries such as South Africa, Kenya, Egypt, Tunisia and Morocco, economic diversification has occurred towards tourism, manufacturing and services, while the economies of others such as Sudan, Angola, Libya and the Democratic Republic of Congo are increasingly dependent on oil and mineral revenues. In yet other countries such as Zimbabwe, Namibia and Botswana, nature conservancies and woodlands claim a substantial proportion of the land demand. In addition, the process of urbanization, is

creating new and novel demands on land and land related resources for engagement in more sophisticated economic activities such as the provision of recreation, entertainment and catering services irrespective of residential or urban settlement patterns. This new and emerging service economy is becoming an important contributor to the development of many countries.

d. The Social and Cultural Context

In a very broad understanding, majority of African societies regard land not simply as an economic or environmental asset, but also as a social, cultural and ontological resource. Land remains an important factor in the construction of social identity, the organization of religious life and the production and reproduction of culture. The link across generations is ultimately defined by the complement of land resources which families, lineages and communities share and control. Indeed land is fully embodied in the very spirituality of society. These are dimensions which land policy development must address if prescriptions for change are to be internalized.

Despite the reverence, which surrounds land and land relations in Africa, the system of patriarchy that dominates social organization tends to discriminate against women when it comes to ownership and control of land resources. This has been re-enforced, first, by imported land law that has tended to cement the system of patriarchy by conferring title and inheritance rights upon male family members on the theory that women, especially married women can only access land through their husbands or male children. If law and policy are to redress gender imbalances in land holding and use, it is necessary to revise existing rules of property in land under both customary and statutory law in ways that strengthen women's access and control of land while respecting family and other social networks. This is all the more important as women remain the primary users of agricultural land in most African communities.

Beyond the frequently acknowledged inequalities due to race, class and gender, the marginalization of particular ethnic groups with respect to access to adequate land remains a perpetual source of conflict. Therefore land policy reforms must also address these concerns.

e. The Demographic Context

Through a combination of factors including population growth, migration and urbanization, the overall availability of land (particularly agricultural land) is decreasing in many African countries. Much of the African continent is still in the early stages of urbanization. Although the extent of urban concentration will continue to vary from country to country, urbanization throughout Africa is still essentially driven by large-scale migration from the countryside as a result of a variety of factors including poverty, famine, drought, disaster, conflict and the general perception that the cities offer a better quality of life. An important factor to note, however, is that urbanization in Africa will likely continue to be characterized by informal settlement developments. This phenomenon will continue to compound inequalities in access to development resources in these informally settled areas.

Finally a persistent phenomenon in the urban areas is the systematic discrimination against women in education, housing, access to land and opportunities to pursue basic livelihood skills despite the existence of formal gender- neutral laws. Much of this is as a result of social realignments in urban politics and economy and the primary perception of women's roles as being mainly dependents. Although there are indicators that many women are beginning to take advantage of opportunities and challenges presented by urbanization, progress towards active participation in urban politics and economy remains relatively slow.

f. Emerging Global and Strategic Issues

The impact of global warming on climate change is expected to affect land use systems in Africa, although its extent and magnitude is still unfolding. Nevertheless, direct impacts such as reduced availability and scarcity of water, saline intrusion, increased temperatures, biodiversity loss and desertification as a consequence of more frequent droughts, are now known to reduce productivity of land and hence likely to accelerate poverty. In as much as the African continent contributes least to green house gas emissions, which are primarily responsible for global warming, the overall impact of climate change on the continent's ecosystems will continue to be disproportionately severe. Land policy reforms will need, therefore, to pay particular attention to the design and implementation of mitigation and adaptation measures, including the mobilization of capacity to manage long- term implications of such change.

The accelerated exploitation of natural resources by, together with the establishment of, foreign industries in number of African countries, have led directly to a "new scramble" for Africa's land resources. The first "scramble" took place in the 19th century under the European colonization, carving out sections of the continent. What has not changed, however, is the importance of Africa to western economies by virtue of its rich endowment in natural resources. In recent times, the significance of bio-fuels, minerals and oil has gained prominence. The concept has become even more widespread, as demonstrated in relation to demand for land for a wide range of investments in timber, tourism, commercial development, and lately food production for consumption abroad. The question to be asked is whether these foreign demands can be met while observing sustainability guidelines and without marginalizing the land rights of African communities.

Increasingly African countries are also embarking upon regional cooperation and integration, under the auspices of various pan African and sub-Regional organizations. A growing number of cross-border developments point to the need for co-operation over many issues including migration, the movement of pastoral communities, refugees, trans- boundary ecological stresses (land and water degradation, desertification, and deforestation). Regrettably however, these ongoing regional cooperation and integration initiatives have not resulted in binding convergences in land policy frameworks, processes and management systems. An important challenge for African States will be to put in place adequate policies to ensure that the risks

associated with these changes and, in particular the risk of uncompensated loss of land rights by the poor are avoided or effectively managed.

g. Implications for the Role of Land in the Development Process

The development of these key elements in land policy recalled by the UN-ECA (2010:5-11) assumes that discussions on the matter should call for careful analysis of the potential contribution of land policies to broader development, the scope for interventions in the area, and the mechanisms that can be used to achieve broader social and economic goals. First, they enable governments to identify the critical questions and challenges, which must be tackled and opportunities that must be seized if the land sector is to play its primary role in Africa's development process. That clearly must be the starting point in any meaningful process of policy development and reform. Second, they provide a basis for realistic policy development and reform in the land sector. Third, they point to the fact that although national strategies on how to resolve these issues may vary, there are important commonalities in terms of their origin and characteristics that make the sharing of experiences across countries useful and even critical.

3.3.4. Sustainable Development

In the paradigm of land management defined by Enemark (2005), sustainable development appears as the outcome. The concept of sustainable development has existed in numbers of societies where the rationale use of natural resources has mingled very often into religious considerations like it occurs in Asia and Africa, but it has won notoriety from the United Nations report "Our Common Future", also known as the Brundtland Report (UN, 1987), which provides one of the most quoted definition: *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"*.

In this definition, two key elements have to be considered: **needs** of the people, particularly of the poorest social standing, and **limitations** of available resources. In sum, the extent to which the needs of the poor are reconciled with resource limitations would, therefore, be an indicator of sustainable development in any given society, because many developing countries have opted for short-term goals of economic development instead of ecological sustainability. In the extensive discussion and use of the concept since then, there has generally been recognition of three aspects of sustainable development (Harris 2000, 5-7):

- ❖ **Economic:** An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectorial imbalances which damage agricultural or industrial production.
- ❖ **Environmental:** An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or

environmental sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. This includes maintenance of biodiversity, atmospheric stability, and other ecosystem functions not ordinarily classed as economic resources.

- ❖ **Social:** A socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, and political accountability and participation.

The goals expressed or implied by these three components of sustainable development are multidimensional, which raises the issue of how to balance objectives and how to judge success or failure (Harris, 2000:7). For example, what if provision of adequate food and water supplies appears to require changes in land use that will decrease biodiversity? What if non-polluting energy sources are more expensive, thus increasing the burden on the poor, for whom they represent a larger proportion of daily expenditure? Which goal will take precedence?

In fact, each of the three components is commonly referred to as a system (*ibid*): economic systems, environmental systems, and social systems. Therefore, it becomes almost impossible to analyze all these systems at once. Also, the whole cannot function properly and is not viable and sustainable if individual component systems cannot function properly. In sum, sustainable development is only possible if the component systems as well as the total system are viable. Despite the uncertainty of the direction of sustainable development, it is necessary to identify the essential component systems and to define indicators that can provide essential and reliable information about the viability of each and of the total system.

3.4. Tenure Security

As noted by Ellsworth (2002:2), the concept of tenure security often refers to a perception, a subjective appreciation of a tenure status in a given time and place, by both people concerned, observers, decision makers and experts. This perception encloses people's ability to control and manage a parcel of land, use it and dispose of its produce and engage in transactions, including transfers or leases of land (IFAD 2008:4). Out of these different considerations from the essence of tenure security, three main characteristics can be identified (*ibid*):

- Duration – how long will different land rights last?
- Protection – will land rights be protected if they are challenged or threatened?
- Robustness – are the holders of land rights able to use and dispose of these rights, free from interference of others?

3.4.1. Three Major Schools of Thought for Tenure Security

Although tenure security may have a wide range of definition and/or appreciation, Simbizi *et al* (2013:9-16) identified in their research three dominate schools: (1) the economic or market oriented school, (2) the legal based school, and (3) the adaptation paradigm oriented school.

1. **The economic or market oriented school** advocates for private/individual land rights while stressing the inability of communal land rights to provide sufficient incentive for new markets opportunities. Under this school, tenure security is associated to economic outcomes such as incentives to invest or agricultural productivity. The key features of this concept include (1) ownership of land, (2) the degree of exclusivity to use land, (3) the transferability of land rights, (4) the duration of land rights, and (5) the proof of ownership. In sum, the maximum tenure security here is regarded as the individual full ownership of land supported by written evidence commonly known as land title; that enables the landholder to transfer its rights.

2. **The legal based school** simply refers tenure security to protection and enforcement of someone's rights or interests in land. Even though the legal based notion of tenure security is integrated into the economic school and to the adaptation paradigm, legal security is usually considered as a type of tenure security and is quite often investigated in isolation, as noted by Bellemare (2009) and Toulmin (2009) cited by Simbizi *et al* (2013:13). The basis of land tenure security made by legal systems, mainly statutory systems, manages how land rights are administered and enforced and how rules that make land tenure secure are applied (Knight, 2010 cited by Simbizi *et al*, 2013:13).

3. **The adaptation school** is more inclusive and the most appropriate for the Sub-Saharan Africa, even though advocates of the economic or market-oriented school argued that it cannot offer a full ownership of land supported by written evidence. Under this school, security is as an assurance that land owner rights are recognized and enforced within the community norms and values, primarily regulated by customary institutions. Based on this concept, any type of rights held, regardless of scope and duration, is eligible to lead to tenure security. In fact, land rights are mainly social relations, and the majority of rural small holders fall under customary tenure category (*ibid*). However, absolute customary management of land rarely exists in Sub-Saharan African countries, rather both customary and formal do cohabitate. Moreover, Cousins (2005) and Tsikata (2003) cited by Simbizi *et al* (2013:13), draw attention on the fact that many of the customary practices or norms are not fair enough to insure equity to all land rights holders, especially to women and/or some minority groups.

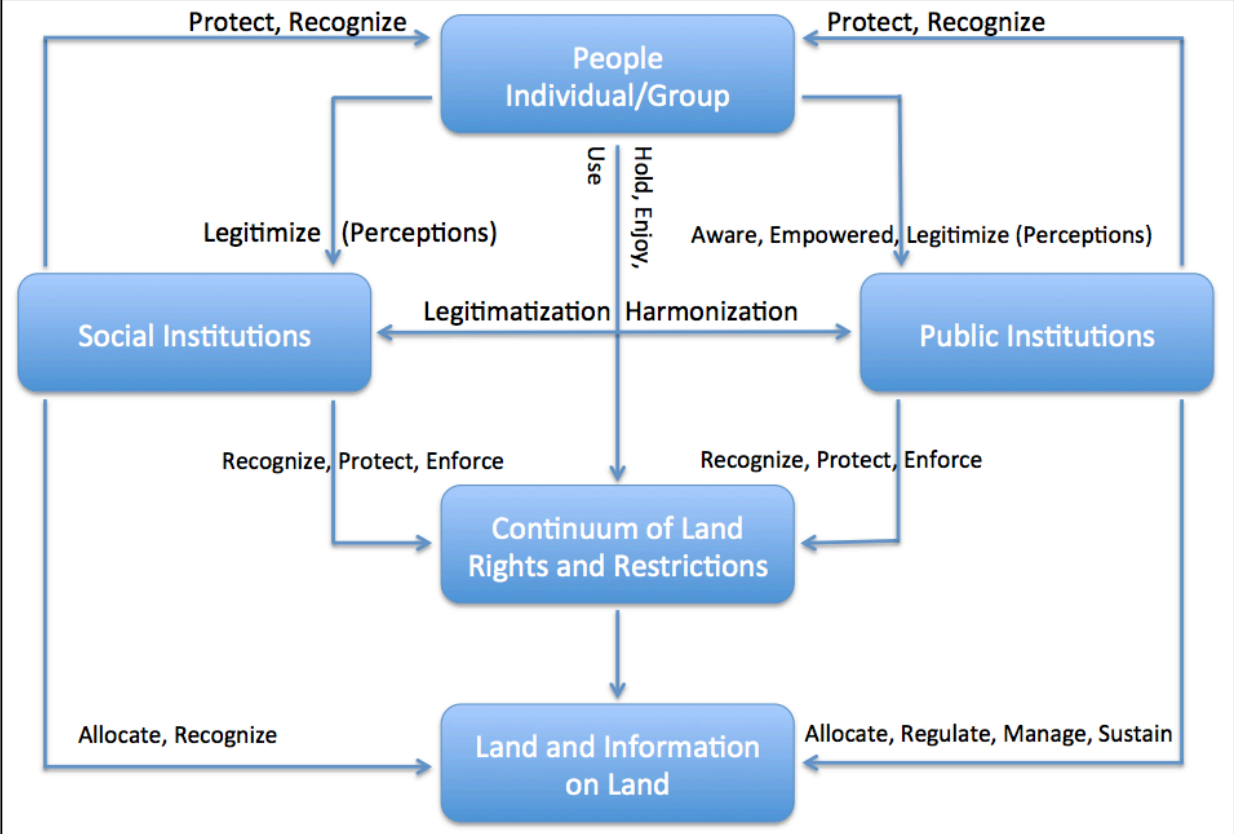
3.4.2. Shifting of Paradigm for a Multi-aspects Concept of Tenure Security

Simbizi *et al* (2013) conclude their study with a new conceptual model of tenure security as an emergent property based on a previous study done by FAO (2002) on land tenure and rural development. These studies agreed on the fact that the meaning of tenure security for small holders in Sub-Saharan Africa encloses a set of interaction between different elements in a given tenure system.

Five typical elements usually found in many Sub-Saharan African tenure systems are identified in the figure 3.1 with their different relationship and interactions: (1) individuals or group perceptions, (2) public institutions, (3) social institutions, (4) continuum of land rights and

restrictions, (5) land and information about land. Basically, these aspects of land tenure system interact as a whole to generate security, which explains why the model is named “multi-aspects” (Simbizi *et al*, 2013:16).

Figure 3.5: A multi-aspects concept for land tenure security in Sub-Saharan Africa



Source: Simbizi *et al* (2013:16)

People are the principal element of any land tenure system. They may be individuals, groups or a whole community with different interests and relationships to the same piece of land. One noticeable characteristic of land tenure in Sub-Saharan Africa, especially in rural entities, is the tight correlation between land rights and social relationship. In fact, people are directly linked to land through different relationship (land use rights, restrictions for different social purposes, etc.). Institutions in place define this link between people and land, with their role extended to recognition, protection and enforcement.

Within these interactions, security of tenure implies (1) recognition of land rights and the individual or group holding those rights, (2) assurance over prescribed land rights and the ability of people to use and enjoy them. There is, however, a consensus that people are secure if they perceived to be so (Sawadogo, 2000, cited by Simbizi *et al* 2013:17). In many cases, people could feel the threat of expropriation even after land certification. In order to minimize the subjectivity level of perceptions, a close consideration needs to be given to elements of the tenure system that affect perceptions together with internal and external threats. More

importantly, people need at least to be aware and empowered on their rights and responsibilities.

A continuum of land rights and restrictions defines the range of different forms of relationship that can possibly exist over land. Each right within the continuum provides a certain security, however without establishing any hierarchy with regards to degree of security. Security of tenure in a continuum of land rights and restrictions means that any right or restriction within the continuum is (1) recognized, can be (2) protected and (3) enforced by both social and public institutions. Any right or restriction cannot be secure until they are legitimate. Legitimacy can be either narrowed to legal recognition of customary land right, or confined to the recognition of land rights by social institutions.

Legitimacy is not exclusive to land rights; it extends to all elements of land tenure system. For instance, a person or a group entitled to any right, should be legitimate and recognized by the two institutions (public and social). Women land rights security for example, rises as a result of some social institutions which don't recognize women as legitimate to hold a particular land right. In the same way people should legitimize and trust institutions, when it is not the case, they can't seek for protection once their land rights are infringed.

Institutions stand for both formal written and unwritten rules regulating all relationships to land together with authoritative multiple structures that exercise those rules. These existing structures and associated rules in terms of community councils, local government, traditional leadership, land agencies, etc. can be categorized into two major groups: social and public institutions. Social institutions also known as customary institutions are made by socio-cultural norms, rules and associated authoritative structures that regulate land relationships from allocation, recognition, protection and enforcement. Public institutions refer to statutory laws, policies, guidelines and related structures that regulate any relationship to land.

The two institutions hardly merge completely when it comes to actions on the ground. They either operate in parallel set up or overlap, with no absolute regulating framework in many countries including Chad. However, when it comes to security of tenure, these two institutions are determinant as they protect people with their land rights whenever these are challenged. Throughout Africa, effort for harmonization and legitimization between the two institutions are being done, but these efforts are far to be holistic.

Land and information about land: land as a physical object is always associated to information about land commonly known as cadastral information or land information system. Tenure security is closely linked to land as physical object but also to recorded land information such as boundary survey, the size and the value (McKenna and Urban-Karr, 2008, cited by Simbizi et al, 2013:20). This information is usually of great contribution in enforcement of land rights. Both institutions, social and public, regulate physical land. However, public institutions play an extra role of creating, maintaining and sustaining land information system.

Therefore, security of tenure is primarily recognition or legitimization of land hold as a physical object. Land information management comes in second position to reinforce security. It often happens that inconsistency emerges between the two institutions, and land information management likely tends to harm security, especially for the rural poor during land readjustment for example. Also, the update of land information may not cope with the level of land transaction, creating therefore informal transactions.

In fact, the uninterrupted rural to urban migration in developing countries continues with the well known consequences of proliferating informal settlements inducing unsafe or unclear rights of tenure, structurally not comparable with the urbanization rate and town development problems in industrial countries (Magel, 2001:1). In this assertion, Magel (*ibid*) clearly point out the phenomenon that always relegates rural entities in the second plan when dealing with urban sprawls.

Having developed some of the best concepts on village renewal across the world, Magel (2002) calls for the improvement of existing infrastructures in rural entities to progressively developing new ones without compromising the exiting rights over land and the sociocultural heritage tied to it. Thus, the necessity to develop processes and institutions by which land, property and natural resources are managed, in term of good land governance (Enemark *et al*, 2009:5).

3.5. Good Land Governance

As a fundamental element towards achieving sustainable development and poverty reduction, land governance is about determining and implementing sustainable land policies and establishing a strong relationship between people and land. According to the FAO (2007:5), governance is defined as the way in which society is managed and how the competing priorities and interests of different groups are reconciled, which includes formal institutions of government but also informal arrangements. Most importantly, governance is concerned with the processes by which citizens participate in decision-making, how government is accountable to its citizens and how society obliges its members to observe its rules and laws (*ibid*).

Land governance on the other hand is about determining and implementing sustainable land policies and establishing a strong relationship between people and land (Enemark *et al*, 2009:5). By contrast, when land governance is effective, equitable access to land and security of tenure can contribute to improvements in social, economic and environmental conditions. For Magel (2012), the importance and necessity of good governance in land management is reflected in the fact that the modern society is characterized by a number of social weaknesses and imbalances, environmental damages, new energy and climate change challenges, a constant mismanagement of land use added to a dramatically growing land conflicts, and more importantly an increasing gap between urban and rural areas.

In fact, when land governance is effective, equitable access to land and security of tenure can contribute to improvements in social, economic and environmental conditions (Palmer *et al*, 2009:11). However, Espinoza (2012:5) considers that within a country the land sector is evidently a complex system composed by quite an extensive list of technical and legal aspects, which have direct impact on economic development and environmental as well as social dimensions. In response to that complexity, Palmer *et al* (2009:7) identified five important characteristics of land that are useful when developing a definition of land governance.

First, for many people land is more than just an asset, as it is closely linked to individual and community identity, history and culture. It is also a source of livelihoods and, for many poor people, their only form of social security. Therefore, any decision regarding use of and control over land and natural resources are extremely sensitive, and are often highly political with different societal groups having differing views.

Second, multiple rights to the same parcel of land can be held by different people or groups. The landowner may hold some rights, with other rights being held by people who use the land. For example, the right to sell the land, the right to use the land for pasture or agriculture, the right to use trees on the land, the right to travel across the land, or the right to drive cattle across the land to obtain water from a river. These multiple rights reflect in part the fact that there can be multiple uses for the same parcel of land. In most cases, reconciling these multiple interests is a core governance challenge.

Third, land rights, restrictions and responsibilities are expressed through a socially constructed system of a complex relationship among people with respect to land and its resources. These rules of tenure define who can use what resources of the land for how long, and under what conditions. These socially constructed rules tend to mirror the distribution of power within a given society or country. In general, the powerful enjoy more secure land rights, while more vulnerable groups have less secure land rights.

Fourth, land rights can have different sources of legitimacy. From a legal perspective, claims to land are legitimate when they are recognized in law (legal legitimacy). Some claims to land lack legal legitimacy, but can be considered socially legitimate. People with socially legitimate rights may have an expectation that their claims will or could ripen into full legal rights. However, the line to be drawn between “socially legitimate” and “legal legitimacy” differs from one society to another and is likely to change over time within any given society.

Fifth, the tenure system is itself an institution with its own institutional framework. The rules of tenure regulate the use of and control over land. These rules may be codified in statutory law and enforced by state structures such as the courts, or the police. Or, in customary systems the rules may be based on traditions and practices that have evolved over generations and are vested in traditional structures. However, the distinction between statutory and customary tenure is becoming blurred as noted in many African countries.

In practical terms, land governance is a crosscutting concept that refers to the rules, processes and structures through which decisions are made about access to land and its use (Espinoza, 2012:4 and Palmer *et al*, 2009:9). The concept is closely linked to the implementation and monitoring of all policies regarding land that points at conducting the development of a country by means of properly managing its land (*ibid*). In order to make it efficient on the ground, the FAO (2012:5-6) identifies ten principles narrowed down to seven that are essential when implementing or regulating governance of land.

1. **Equity and justice:** land governance should promote equitable tenure rights and access to land for all, women and men, youth and vulnerable and traditionally marginalized people, within the national context. Actions in that direction require acknowledging differences between individuals, and taking positive action, including empowerment.

2. **Holistic and sustainable approach:** recognizing that land resources and their uses are interconnected, and adopting an integrated and sustainable approach to their administration.

3. **Consultation and participation:** considering that imbalances exist between different parties, thus the need for active, free, effective, meaningful and informed participation of individuals and groups in associated decision-making processes. The consultation and contribution of those who having legitimate tenure rights, could be affected by decisions, need to be considered prior to decisions being taken.

4. **Rule of law:** adopting a rules-based approach applicable to all, equally enforced and independently adjudicated, and that are consistent with existing obligations under national and international law, and with due regard to voluntary commitments under applicable regional and international instruments.

5. **Transparency:** clearly defining and widely publicizing policies, laws, procedures and decisions in applicable languages and in formats accessible to all.

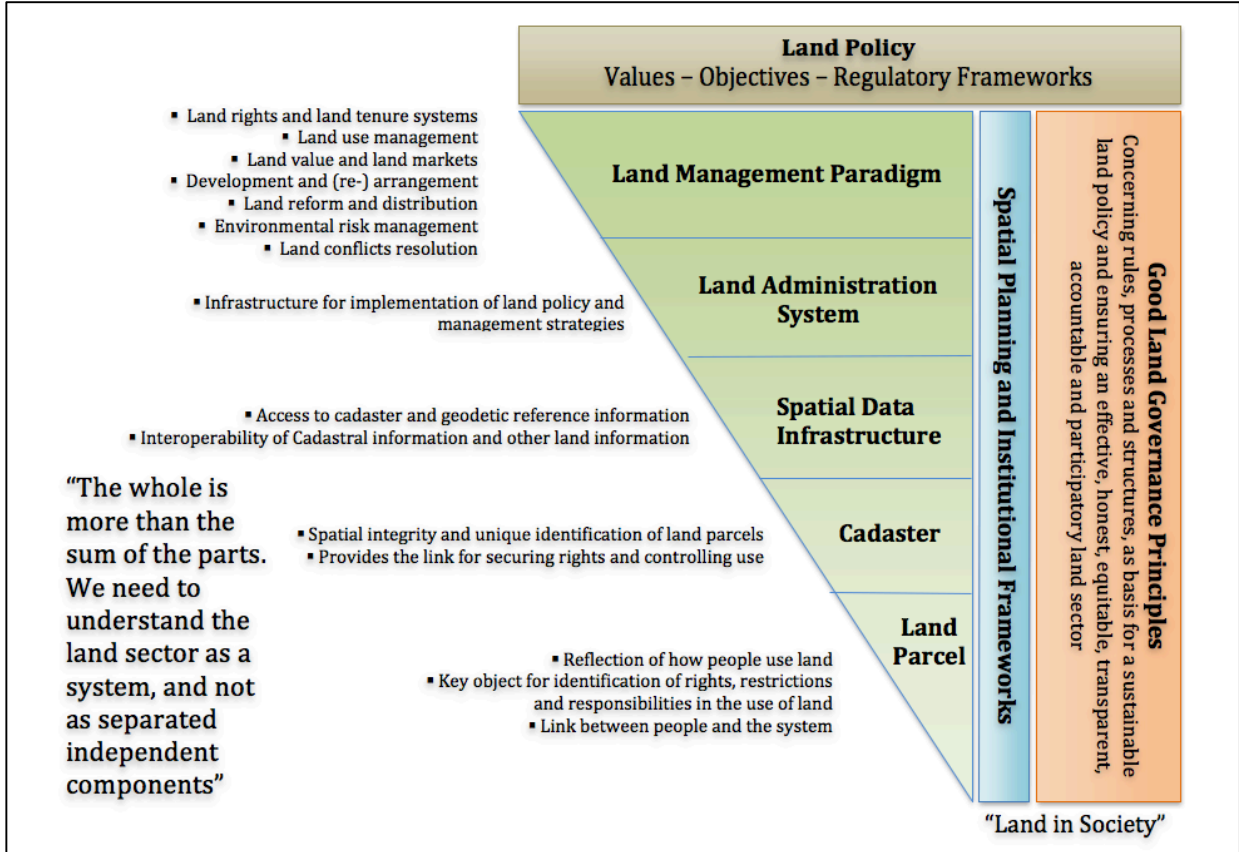
6. **Accountability:** holding individuals, public agencies and non-state actors responsible for their actions and decisions according tot the principles of the rule of law.

7. **Continuous improvement:** States should improve mechanisms for monitoring and analysis of land governance in order to develop evidence-based programs and secure on-going improvements.

Gradually, the inclusive aspects and methods of good land governance have proven to be a successful support of land administration within the triad of land management developed by Magel *et al* (cited by TUM, 2015). This triad stresses on the central meaning of a multipurpose cadaster that captures location and dimension of land parcels and describes its usage and restriction. The Land Administration System (LAS) represented by a Spatial Data Infrastructure in combination with cadaster, land register and other data infrastructure, is a precondition for the subsequent dynamic land management with its complex diversity of activities.

However, many countries tend to separate land tenure rights from land use opportunities, which undermines the capacity to make a connection from planning and land use controls with land values and the operation of the land market (Deininger *et al*, 2010). Added to poor administration and management procedures, the delivery of required services very often fails to meet its expectation. New technology on its own cannot solve the issue represented by the failure to treat land and its resources (*ibid*). In fact, sound land management requires operational processes for the implementation of land policies in a more comprehensive and sustainable ways (Deininger *et al*, 2010).

Figure 3.6: Land Management Triad



Source: Magel *et al* (2009)

Even though the land management triad developed in Figure 3.6 might seem futuristic for many countries, land administration systems must be designed around the management paradigm with the understanding of how the different components fit together hierarchically (Deininger *et al*, 2010). The hierarchy illustrates the complexity of organizing policies, institutions, processes, and information for dealing with land in society, and the order of actions. This conceptual understanding provides the overall guidance for building land administration systems in any society, regardless of the development level (*ibid*).

However, the performing of a sound land management requires number of skills and competences, in the domain for example of law, planning, valuation, land tenure, ecology, communication, etc. The triad underlines that the "land sector needs to be understood as a

coherent system and not merely as a chain or addition of individual or even independent component” (TUM, 2015). Magel et al (cited by TUM, 2015), use the term “*Pentaphony of Land Management*” to picture the relevance of land management for politics and the general public. The objective here is to assign the discipline and instruments of land management to the major aim of the government, for instance, to establish and ensure equal living condition in all parts of the country (*ibid*).

The hierarchy also provides guidance for adjustment or reengineering of existing systems. This process of adjustment should be based on constant monitoring of the results of the land administration and land management activities. Land policies may then be revised and adapted to meet the changing needs in society, which will, in turn, affect the way land parcels are held, assessed, used, or developed.

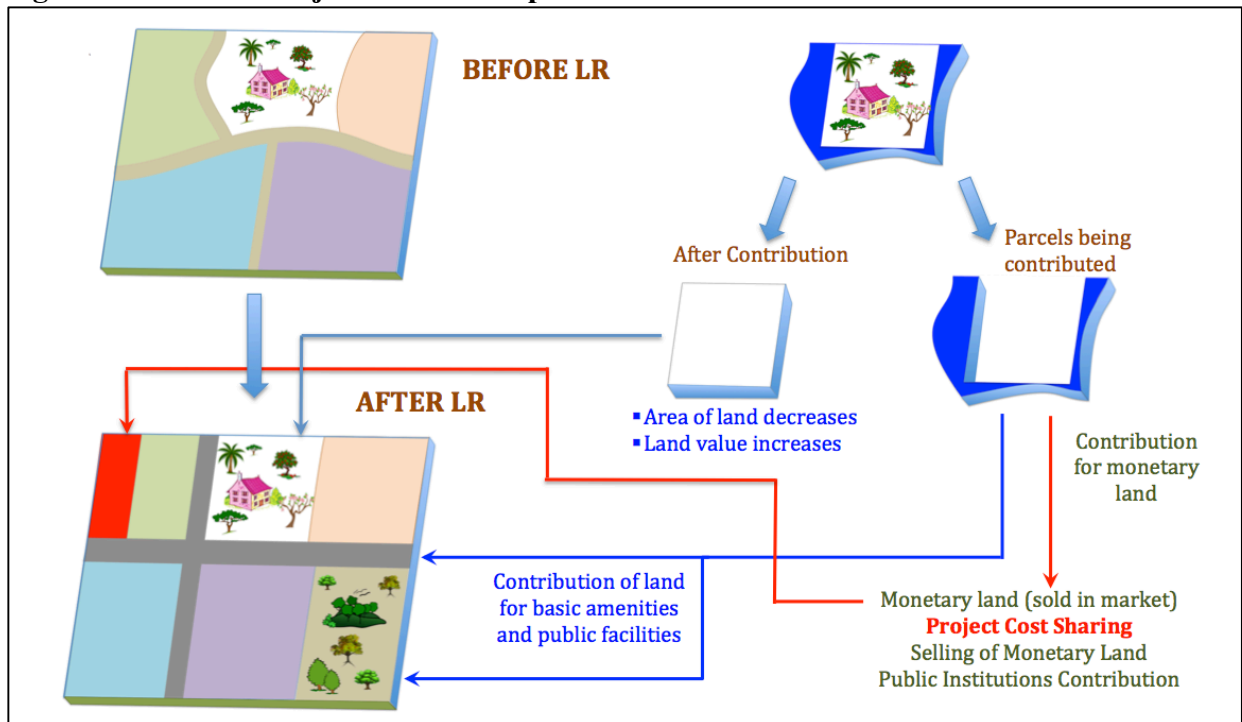
3.6. Role of Land Readjustments in Municipal Restructuring

During municipal restructuring in Chad, the change in boundary occurs through incorporation and annexation designed by the central administration. Since, the new circumscriptions change status (from rural entities to urban settings), implementation on the field are marked by land readjustment that aims to provide more urban configuration to the municipality. In Germany, the man who influenced the law on the land readjustment was Franz Adickes in the early 1900s, according to Müller-Jökel (2004:4). The concept behind land readjustment is the development and/or improvement of urban infrastructure and also enhancing utility/value of land, without acquisition by the municipality in terms of reprivatizing of the building plots (Erdem and Meshur, 2009:722).

In fact, as explained by Müller-Jökel (2004:3-5), all plots within the project area of land readjustment have to be added together to form a “land readjustment-mass”. Out of this total land readjustment mass, areas designated in the urban development plans for public facilities (roads, spaces for car-parking, public green spaces, children’s playgrounds, etc.) can be excluded for allocation to the municipality or any other public agency.

This allocation however, has to obey the rule that “*the ownership right remains untouchably and unchangeably; merely the object (parcel), that the ownership is regarded to, shall be changed concerning location, form and/or magnitude*” (Thomas, 2009:4). The remaining mass, called “redistribution mass”, is the net building land to be redistributed to the original landowners. Two different criteria help in redistributing the building land to original landowners: the relative size or the relative value of their former plots (Müller-Jökel, 2004:3).

Figure 3.7: Land Readjustment Concept



Source: Author's illustration based on Müller-Jökel (2004)

Within **the relative size criteria** of redistribution, up to a certain percentage of old plots can be taken for public use without paying any form of compensation. If for example, a landowner Mr. A had a plot of 100m², and that the allowed percentage to be taken by the municipality is 30%, Mr. A will receive after readjustment 700m² and the municipality 300m². If M. A is given back 800m², then he would have to pay an additional monetary compensation for the 100m² he got more than his calculated claim.

The relative value criteria of redistribution takes into consideration the value of land before and after readjustment considering that the development associated to the project increases the value of the building plots. This method of redistribution depends on factors like mortgage and other real estate liabilities, basis for market value (Thomas, 2009). The benefit generated by urban development is shared between landowner and municipality. The landowners get the gain caused by land value increase by planning (from agricultural land to potential development land), while the municipality absorbs the land value increase caused by land readjustment itself, that means the land value difference between potential development land and building land.

If for instance, the value before improvement is set to be 5 €/m² and the value in land readjustment project 200 €/m², Mr. A with his 1000m² had a profit of 195,000 € (200,000€ - 5,000€ = 195,000 €). In fact, the value of his land to be considered during compensation will be the 200 €/m² compared to the later inducted value that will be a little more higher (350 €/m² in this example).

Mr. A may get a building plot of 600 m² resulting from the readjustment project, which represents a land value of 210,000 € according to the market price of the building plots (600 m²

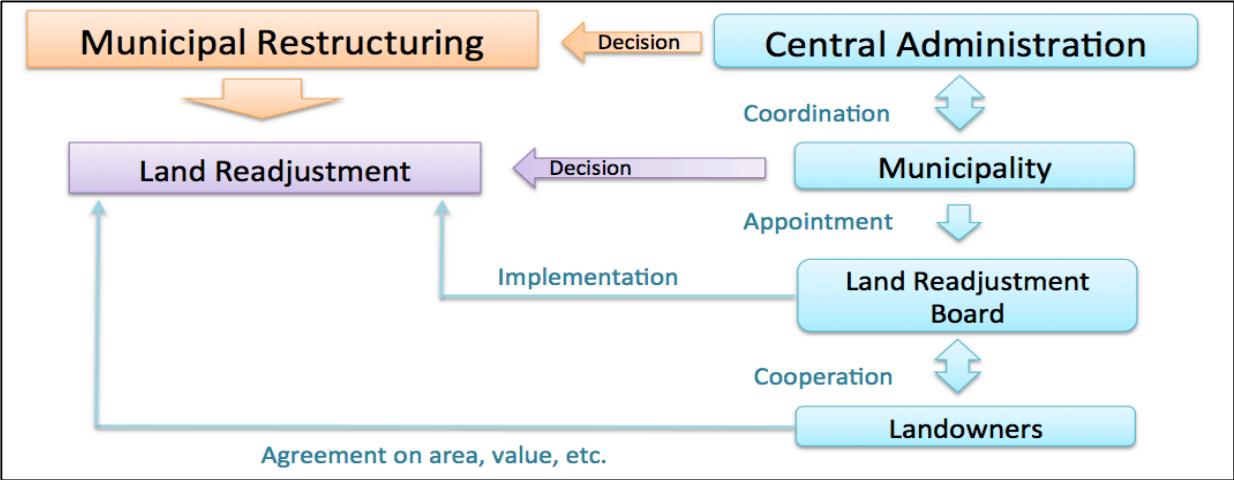
* 350 €/m² =210,000 €). The 350 €/m² is the value after the project, while the 200€/m² is the value inducted by the project at the beginning. From the size of 600 m², Mr. A would have to pay an additional monetary compensation of 10,000 € to the municipality (210,000 € - 200,000 € = 10,000 €).

Mr. A	Size	Value	Total Value
Agricultural plot (before planning and land readjustment)	1,000	5 €/m ²	5,000
Input value (at the beginning of land readjustment project)	1,000	200 €/m ²	200,000
Benefit			195,000
Building plot (result of land readjustment project)	600	350 €/m ²	210,000
Extra monetary value to be paid back to the municipality			10,000

Based on the different descriptions given by Thomas (2009) and Müller-Jökel (2004) on land readjustment in Germany, a conceptual framework can be built as to fit the context of municipal restructuring in Chad. Within the decentralization process, central administration decides on the restructuring of municipalities by decrees. Following this decision, municipalities decide on readjustment of lands mainly agricultural. In Germany, as stated by Müller-Jökel (2004:5), the responsibility for all important land readjustment projects is transferred to independent land readjustment boards appointed by municipalities.

The municipality decides on the land readjustment area, but the independent land readjustment board makes the final decisions, usually composed of five persons: a lawyer, a land evaluator, a land surveyor and two members of the local parliament (*ibid*). A great emphasis is put on the inclusive participation of all landowners involved in the project. The market value of the landowners’ input-plots and the different options of land redistribution have to be discussed.

Figure 3.8. Land Readjustment Within the Context of Municipal Restructuring



Source: Müller-Jökel (2004) as illustrated and completed by Author

Land readjustment is an economic instrument to realize urban development plans with little financial risk for the municipalities, as they do not have to purchase and to finance the original

plots (Thomas: 2009). In fact, the land value increases from agricultural land to building land and can be divided between landowner and municipality.

3.7. Discussion

Theories remain the ideal cases that are practically difficult to execute, but they provide framework for any improvement of a given situation. Land management, decentralization and tenure security are not of exception, and their implication highly differ from one context to another. In Sub-Saharan Africa, the colonial legacy constitutes one of the principal parameter of differentiation, added to the socio-cultural context. However, even if differences may persist, the driven force or the objectives remain quite the same in all contexts. As an example, when putting together land management, decentralization, tenure security and sustainable development, one common question comes in mind: how land readjustment can be made more sustainable and pro-poor during municipal restructurings? That particular question resumes at the best all the interest behind this current research. One of the notable contribution regarding sustainable land development and management comes from Magel (2001) who insists on the fact that the rural-urban controversy or divide should be overcome by an interdependent rural-urban continuum.

With the current trend of decentralization in many Sub-Saharan countries, Ouedraogo (2006) considers that an important opportunity is given for local development and more secure land rights for the poor people. However, in order for decentralization to work, the constraints and risks that come with it need to be anticipated. For Altmann (2000:37), decentralization in practice appears quite often to be a simple downloading of service delivery to local levels of government without corresponding redistribution of authority and resources. A situation reflected in the different processes of municipal restructuring, especially in French speaking countries. Municipal restructuring reflects more than a simple definition of new boundaries. It usually dictates a new status that often overwrites the mission of existing local institutions, especially concerning land use rights. The consideration of the theories behind decentralization, land management, tenure security and sustainable development gives a much more efficient picture of how land readjustment during municipal restructuring should take place.

Chapter Four: Research Design and Methodology

4.1. Introduction

Commonly defined as being a logical and systematic search for new information on a particular topic, research is more than just gathering information. “*It is about answering unanswered questions or creating that which does not currently exist*” (Goddard et al, 2001:1). Because new discovery calls for further investigation, research remains a never-ending process. The academic context of this discovery voyage requires a step-by-step procedure to unfold the hidden aspects. Most commonly, this procedure is comprised of: defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis (Kothari 2004:1).

The different steps that can form a research interlink to each other, because the outcome of one step feeds back through the system and provides a new understanding of the problem, and may call for a new design of the research and/or further studies. Whether consideration is given for understanding the reason behind a given problem or any quantifiable data, the research design that constitute these different steps, can call for either one or both of the two methods: qualitative and quantitative (Table 4.1).

Table 4.1: Quantitative Research Versus Qualitative Research

Characteristics	Quantitative Data	Qualitative Data
Type of Data	Phenomena are described numerically	Phenomena are described in a narrative fashion
Analysis	Descriptive and inferential statistics	Identification of major themes
Scope of inquiry	Specific questions or hypotheses	Broad, thematic concerns
Primary advantages	Large sample, statistical validity, accurately reflects the populations	Rich, in-depth, narrative description of sample
Primary disadvantages	Superficial understanding of participants thoughts and feelings	Small sample, not generalizable to the population at large

Source: Vanderstoep et al (2009:7)

Quantitative method relies on quantifiable data, therefore more concerned with measuring things, producing in particular estimates of averages and differences between groups, etc. (Rajasekar et al, 2006:4). The major purpose in this case is to make valid and objective descriptions on phenomena through a process generally expressed or described in terms of quantity or amount. Qualitative method on the other hand, originates from social science and deals with understanding why people behave as they do, which involves watching them in their own territories through interaction in their own language or terms (Taylor, 2005:102).

In social science when choosing a research design, both qualitative and quantitative approaches come very often together as complementary. However, the preference is generally towards understanding reasons behind facts and behavior rather than counting them. With quantitative method, the researcher attempts to achieve objectivity by not letting his personal biases

influence the analysis and interpretation (Taylor 2005:91), while the qualitative method as described by Masum (2009:59) focuses on subjective experiences and seek answers to questions which are not easily quantified, such as land development process. The current study attempts to understand some important facts about decentralization and land management in Chad, especially how municipal restructurings through land readjustments affect people livelihood in the surrounding rural settlements. Therefore, much more consideration was given to qualitative approach, although quantifiable data were also used to confirm certain facts.

4.2. Research Design

Research design is more than a work plan, because it helps linking the objectives to the conclusion, in a sense that it avoids losing the main perspective of the study. Yin (2003:20) states that research design deals with a logical and not a logistical problem, because it looks at how questions could be answered properly and objectively while work plan serves only as a guide during a specified time period for carrying out work. In fact, the main purpose of the design is to help to avoid the situation in which the evidence does not address the initial research questions. Therefore, the case selection and the process of data collection have to be performed thoroughly, in order to provide a comprehensive set for analysis.

4.2.1. Selection of the Case

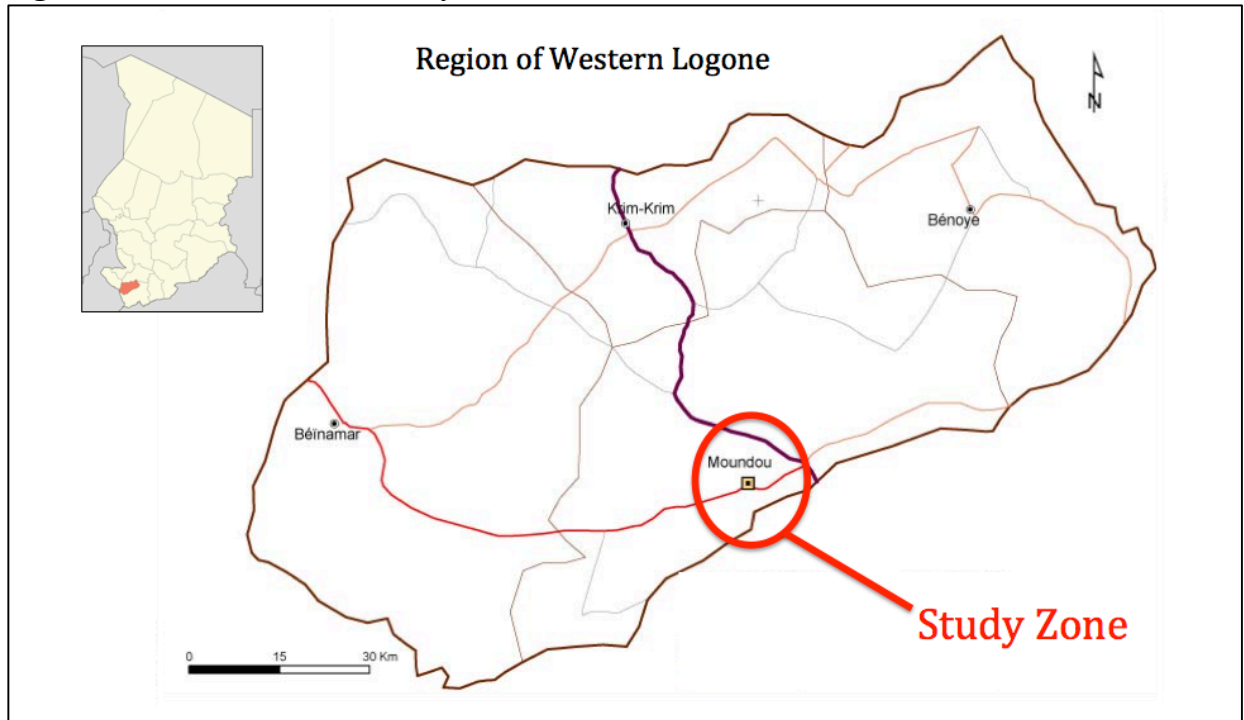
Case study is a widely used research method in social science, because the result provides a deeper understanding of why the instance happened, and what might become important to look at more extensively in future research. Instead of using samples and following a rigid step-by-step protocol to examine limited numbers of variables, case study approach involves an in-depth examination of the event or instance called “case” (Neale et al, 2005). It gives the story behind the result by capturing what happened to bring it about, and can be a good opportunity to highlight a project’s success, or to bring attention to a particular challenge or difficulty in a project.

The investigation is actually more interested in the contextual realities and therefore looks at the differences between what was planned and what actually occurred (Anderson 1993 cited by Noor 2008:1602). For instance, the project of this present research was developed over the last years after observation of recurrent facts about unplanned restructurings from the decentralization process where urban growth overthrows rural livelihood; contrasting with the primary goal of this new administration system that linked itself to local empowerment for sustainable development.

Noor (2008:1602) stated that case study does not intend to cover systematically an entire setting, but rather to focus on a particular issue in a chosen set of unit of analysis. Narrowing down the range of studied cases contributes to capture heterogeneous causal relations, even if this increases the risk of selection bias. Located in the Southern part of Chad, the region of Western Logone where the municipality of Moundou is located, constitutes one of the rare

suitable regions of the country for agriculture and other rural activities, The country being cover on more than its half by the Sahara desert.

Figure 4.1: Location of the Study Zone



Source: P-SIDRAT, 2015

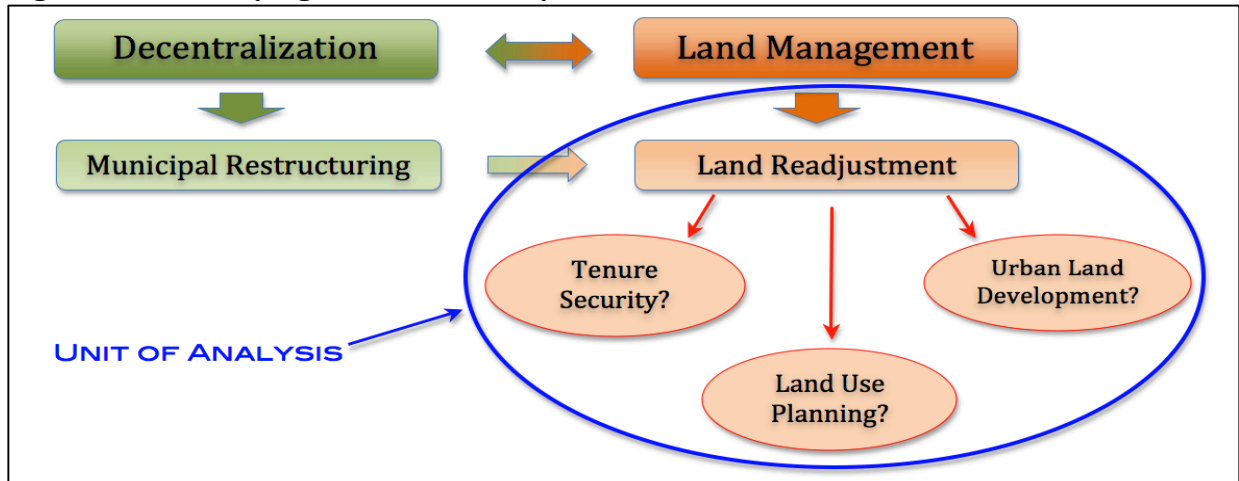
Over the years Moundou has grown as an industrial center, home to the brewery of Chad's most popular beer, and the cotton and oil industries. Due to the increasing flow of migrant workers from other parts of Chad and also from neighboring countries, the city turned out to be the second most populated of the country after the capital city N'Djamena. All commercial activities and almost all ethnic groups are then represented in the region, making it one of the most sensible in terms of recurrent conflicts, especially related to land. In response to the high flow of population, Moundou encroached considerably over surrounding rural entities. Added to this urban growth, the decentralization movement in the late 1990's redefined the municipality boundary, followed by systematic land readjustments.

The case of the Moundou may not picture exactly all land related issues in the context of municipal restructuring in Chad, which might confirm some of the criticisms on case study researches saying that they lack of scientific rigor and reliability and that they do not address the issues of generalizability. However, case study enables for example the researcher to gain a holistic view of a certain phenomenon or series of events and can therefore provide a round picture. Taking the example of Moundou marked a starting point for further analysis of the situation since it exposed real concerns from local populations about tenure security.

4.2.2. Structure of the Unit of Analysis

As well as case study defines a particular context of instance for deeper analysis, it also targets a specific unit for the same purpose. Municipal restructuring in Chad occurs in two principal forms: incorporation (where municipalities are created out of the merging of several rural communities) and annexation (which implies the merging of an existing municipality with surrounding rural communities). Based on the fact that rural land use is governed mainly under customary tenure system, readjustments of land parcels occurred to provide urban infrastructures, either under incorporation or annexation.

Figure 4.2: Identifying the Unit of Analysis



The questions raised in the current study are to understand how land readjustment affects the security of tenure? Does land readjustment obeys to an effective land use planning? Does land development follows in order to provide adequate infrastructures for the improvement of living conditions? Therefore, land readjustment constitutes the unit of analysis.

4.2.3. Data Collection

Most often, previous studies on the research exist with relevant data that could give significant inputs for the theoretical problem or the specific policy issue to be studied. Therefore, social scientists have usually the choice of collecting their own data or to search for existing ones relevant to the problem at hand. This situation calls for the consideration of *primary data* and *secondary data*. According to Hox and Boeijs (2005:593), primary data are data that are collected for the specific research problem at hand, using procedures that fit the research problem the best. Secondary data are data from the existing literature, official documents, reports, etc.

Although collecting own data for a specific research problem may be costly and time-consuming, it remains the best option for the case of this current study. In fact, doing research in Chad is hindered by the lack of previous studies on major issues. Even if documents exist, their access require special authorization. As an example, during the field investigation it has been required a note signed by the Ministry of Land Management in order to get information on

land titles issued so far for the whole country. Therefore, collecting own data has guided the research in form of observations, interviews, documentation, etc.

4.2.3.1. Observation

This method calls for the collection of information from the investigator's own observation. *"The term observation captures a variety of activities that range from hanging around in the setting, getting to know people, and learning the routines to using strict time sampling to record actions and interactions and using a checklist to tick off pre-established actions. Whether enacted informally (as "hanging around" suggests) or formally (as "using a checklist" suggests), observation entails the systematic noting and recording of events, behaviors, and artifacts in the social setting"* (Marshall and Rossman 2010:139).

Observations provided in this research, considerable information before, during and after each interview. They helped assess the veracity of some of the information received from the respondents. Doing observations before interviews also guide in asking relevant questions. In order to capture at the best some elements observed or to be observed, the researcher sojourned in the study zone for more than eighteen months. This immersion offered the opportunity to see, hear, and therefore to have a better impression through a personal experience of daily struggles from this situation of land readjustment implied by municipal restructurings and its impacts on local livelihoods.

Some of the subjects for observation have been improvised during the stay and at the moment of interviews. Observations helped in the sense that they provided first impression on the main activities in the community, the visible impacts of land readjustment, and the existing or not of public infrastructures, etc.

4.2.3.2. Interviews

"The qualitative research interview attempts to understand the world from the subjects' point of view, to unfold the meaning of peoples' experiences, to uncover their lived world prior to scientific explanations" (Seidman 2006, p.1). In this study, interviews were conducted as conversation without predetermined and fixed questions, but rather through questionnaire guides. Although, these semi-structured interviews can be subject of biases, they provide much more detailed information. In fact, this method is based on an assumption that the participant's perspective on the phenomenon of interest should unfold as the participant views it, not as does the researcher (Marshall and Rossman 2006:101).

Therefore, following fixed and predetermined sets of questions may not give the opportunity to the interviewee to give his full impression and understanding on the matter. Semi-structured interview gives a much more complete picture of what happened and the reason behind. A sufficient sample size is supposedly reached when the same stories, themes, issues, and topics are emerging from the interviewees (Boyce and Neale, 2006:4). The context of land management under the decentralization process in Chad involves a wide range of actors.

Even though the new restructurings put aside customary administrations, local chiefs still have influences on their communities because of the strong existing social bound. Therefore, both municipality authorities and local chiefs were considered among the target groups. Their understanding of where stand their duties helped in assessing the boundary between customary tenure and statutory tenure systems in this context of municipal annexation and incorporation. The impacts of the restructuring process on local livelihood are more assessed through the perception from land users, public and private organizations that also compose the target groups.

Table 4.2: Target groups and subjects of interest

	Target Groups	Number	Insight Information needed
Key Informants	High ranked Officials of the municipality of Moundou	2	Management of public affairs, land use, land conflicts, etc.
	Community elders, Village Chiefs	5	Background of the different tenure systems
	Cadaster Technicians of the Municipality	3	Land acquisition procedures, land conflicts, land planning, etc.
	NGO Officials	5	Land conflicts, natural resources managements, etc.
Focus Group	Women	10	Gender issue
	Farmers	12	Land conflicts, land use rights, land expropriation,
	Herders	15	Land conflicts, land use rights, land expropriation,
Household S.	Household	45	Land access, public infrastructures, titling procedures, etc.

A semi-structured interview does not exclude preparation, and according to the target groups a questionnaire guide and a work plan has been elaborated. The questionnaire guide provided a list of questions or fairly specific topics to be covered, but respondents had a great deal of leeway in how to reply. Questions followed from one to another according to the answers given by the interviewee, with sometimes new questions absent on the guide.

a. Key Informants Interview

Interview with key informants provide some of the most relevant information. It gave the opportunity to collect information from a wide range of people including professionals, community leaders, and even simple residents who have first hand knowledge about the current research topic. Their particular knowledge and understanding provided a deeper insight on the nature of problems and gave recommendations for solutions. However, their personal interests and the influences they may have on the information have been taken into consideration, and balanced with other points of view. Since key informants provide details on certain information according to their attributions, interviews were limited to their domain of competences. They comprise of high ranked officials of the municipality, community elders, village chiefs, cadaster technicians and NGOs officials.

b. Focus Groups Interview

The different focus groups are comprised of women, herdners and sedentary farmers. They were selected randomly, but after consultation of existing documents on the local populations and a

first acquaintance with village chiefs and elders. This first impression helped understanding the different social organizations and where to find potential respondents. Herders for example, usually settled on the outskirts of villages on spots given by local authorities. Therefore, their acquaintance required preliminarily investigation on location, activities and the existing of high-tension conflicts with the sedentary population.

Focus group interviews bring together small numbers of subjects to discuss a topic of common interest or familiar to all of the participants. The size of the group was kept small (five to ten) to not intimidate the members and to ensure that everyone of them could express opinions freely. A discussion guide was elaborated to ensure the exploration of all aspects of the topic. Questions were asked at propitious moments to the whole group and not to individuals. In this study, two types of group have been formed for focus group discussion: heterogeneous group and homogeneous group.

The heterogeneous group was composed of individuals from different background and provided diversified points of views. Although it can be intimidating for some individuals, for example women and members of lower social class, heterogeneous group gave a better understanding of the type of relationship that exists. In order to dig deeper in certain crucial topics, homogeneous group was formed. For example, discussions were held separately with groups of herders, farmers, etc. This kind of focus group discussions usually helps unfold some reasons behind conflicts like the one encounter by herders and farmers in Chad.

In the region of Western Logone land conflicts are recurrent and oppose very often herders and farmers. Farmers are autochthonous settlers of the region, while herders are usually nomads from the arid zone of the country that tend to settle now permanently more to the South because of the abundant vegetation. In the early independence, the central administration delimited routes for nomadic herding. However, the new administrative restructuring has simply suppressed these corridors with the consequence that on their migration, herders collide with farmers and each party try to make justice on its own.

This case among others can justify the necessity of having focus group discussion where participants can freely express their opinions and listen to others. Marshall and Rossman (2006:114) assume that people often form their own understandings from others opinions, unlike one-to-one interviews where information may be impoverished because the participant may have not thought on the topic and could feel unprepared to respond.

c. Households Survey

Household represents in general a family entity, and by consequent one important component of land users. The advantages of this target group reside in the fact that interviewees have the ability to express their daily situation with visual proofs such as landmarks in their fields, or demolition of part of their construction as part of the expropriation process. The choice of households was done randomly, but it tried to cover at the best the heterogeneity of the setting.

It includes areas that have been restructured and those in process, as well as areas that already underwent readjustments with more urban configuration.

4.2.3.3. Background Context and Review of Documents

Any recommendations on land policy or other land related issues call for a certain understanding of the history and the context surrounding the setting to be studied. This background analysis may not be a major part of the data collection, but it provides a good insight of where to focus and what questions to be asked. It forms an important part of the secondary data described previously. Although the current project aims to cover a land related topic, the concept of decentralization and administrative restructuring come often in the text, because the type of administration defines the relation people have with one another over land. Also, the history behind explains how this relationship has evolved over the last decades. This information has been gathered through local archives and a review of literature on previous similar projects elsewhere, and theories developed over the last decades.

In social science, content analysis is a standard methodology for studying the content of documents following the elaboration of the theoretical framework. After reviewing the title and the objectives of the current project, a framework of theories to be discussed has emerged: decentralization in African French speaking countries, the paradigm of land management, the concepts of municipal restructuring and tenure security. The raw material for content analysis ranges from local newspaper to Internet scientific documents. However, non-scientific (newspapers, official reports, decrees, laws, etc.) documents provide only background information for deeper analysis, as most of them cannot be quoted.

4.2.4. Data Reliability and Validity

Although the terms reliability and validity are concepts commonly used in quantitative research, Suter (2012) considers that they should never be disregarded in qualitative researches. Ensuring quality should be at the center of the research. In fact, a good qualitative study “*helps understand a situation that would otherwise be enigmatic or confusing*” (Eisner 1991, cited by Golafshani 2003:601). In quantitative studies, quality is used with a purpose of *explaining* while in qualitative research it has a purpose of *generating understanding* (Stenbacka 2001:551). Without any or very few measurable data, qualitative researchers should consider in their analysis one important question: *how data trustworthiness can be ensured to the reader?*

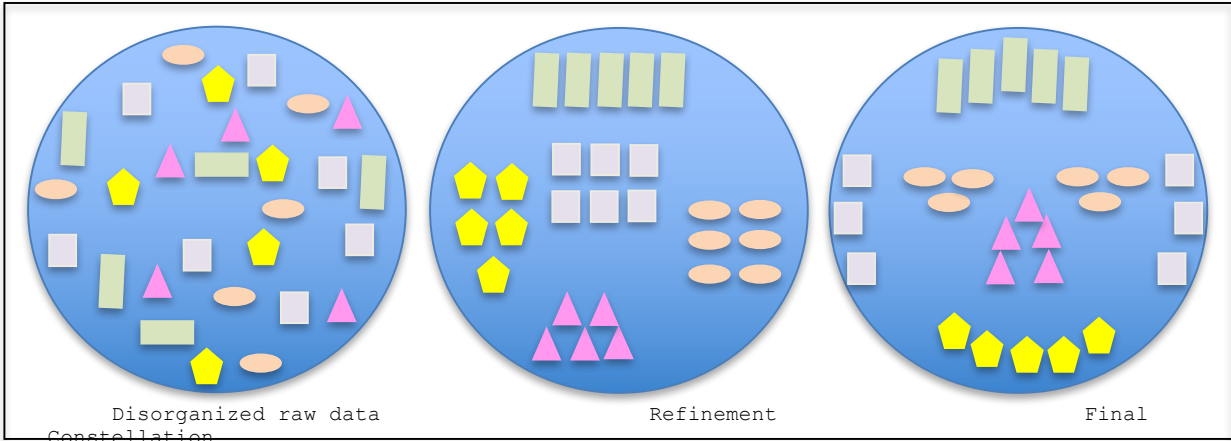
The context of the current research implies lot of emotion from most of the respondents, especially from traditional leaders and household in their experiences of abusive expropriation and lost of prerogatives as leaders. In this case, triangulation is considered as a strategy to improve the validity and reliability in the evaluation of the findings. Patton (2001, cited by Golafshani 2003:603) advocates the use of triangulation by affirming that it strengthens a study by combining different methods, including using both quantitative and qualitative approaches.

In quantitative research, sampling is the fundamental element of reliability and validity, because it has to be representative in term of size primordially. Although qualitative method uses the sampling method, it rather relies on categorizing the different elements of the research. For instance, the present research looks at land readjustment implied by municipal restructuring (annexation and incorporation) that affect different groups of land users (farmers, herders, urban users, etc.). Therefore, the sampling cases try at the best to cover all the state issues in the research questions. The study area and the different target groups were chosen for that purpose. When it comes to the size of sampling, Suter (2012:350-351) considers that qualitative researchers continue to collect data until they reach a point of data saturation, meaning that no new information is being collected anymore. It reflects the particularity of qualitative method where researchers analyze their data throughout their study.

4.2.5. Data Analysis

The analysis of data in qualitative research is similar to reading a constellation. In fact, constellations exist there in the sky, but they are not visible to everyone. In order to localize them, the different patterns they provide have to be identified through a categorization of the stars according to their size, position and brightness. These different categories of stars are then visually connected together to form a constellation. This constellation metaphor is developed in consideration of the kaleidoscope metaphor from Dye *et al.* (2000) and the jigsaw puzzle metaphor agued by LeCompte (2000) cited by Suter (2012:348).

Figure 4.3: The Constellation Metaphor in Qualitative Research



Source: Dye *et al.* (2000) as illustrated by Author

In this case, stars represent data that were collected and piled progressively in form of information as investigation took place (cf. Figure 4.2). In order to provide an understanding according to the stated research questions and hypotheses, this information has to be refined and categorized according to the different patterns they represent, and later connected together they provide a shape. The constellation metaphor provides a general understanding of what data analyzing seeks to achieve from the collected information. However, this process usually takes

great amount of time and is more complex than it can appear in this illustration. For instance, Taylor-Powell and Renner (2003:2) identify five main steps in analyzing qualitative data.

a. Step one: knowing the data

This first step is the most important, because good analysis depends on understanding the data. For qualitative research, this means doing several readings and listening to tape recordings if existed. Impressions are noted progressively, as they can be useful later.

b. Step two: focusing the analysis

A quick review of the research questions and objectives helped in identifying what key questions the analysis should answer. A closer look across all respondents and their answers provided consistencies and differences. All data related to each question were gathered together, and later the connections and relationships between questions and topics explored.

c. Step three: categorizing the information

In the literature, categorizing information is sometimes referred as coding or indexing the data. However, categorizing does not involve assigning numerical codes as in quantitative analysis where variables are labeled with preset codes or values. From the list of themes derived from the research questions and the literature review, data related to same topics have been gathered together and interpreted. During data analysis, new categories have also been considered as they pointed to question or problems that were not stated in the research questions.

d. Step four: identifying patterns and connections within and between categories

As data are organized into categories, patterns and connections will certainly appear within and between categories. Assessing the relative importance of different themes or highlighting subtitle variations may be important to the analysis. Within category description, information pertaining to one theme were summarized through similarities or differences from people's responses. On the other hand, it happened that two or more themes occur together consistently in the data. Whenever one is found, so is the other.

These connections may suggest a cause and effect relationship, or create a sequence through time. For example, respondents linked degradation of natural resources to new administrative restructuring. From these arguments, the reason behind could be that administrative restructuring increases the demand for lands in urban settings and therefore surrounding communities see mounting concerns about loss of forests and farmlands.

e. Step five: interpreting the results

This last step attaches meaning and significance to the analysis. It started with developing a list of key points or important findings discovered as result of categorizing and sorting the collected data. The results are presented in a narrative logic and illustrated with visual displays (pictures, figures, tables, etc.).

4.3. Discussion

Although majority of scholars point out the issue of new administrative restructurings raised by the implementation of decentralization in Africa and its impacts on local land management, very few mention the question of land readjustments implied by municipal restructurings. Therefore, the current research was undertaken in the context of non-existing previous studies on municipal restructuring and land readjustment in Chad or in any other French speaking countries, except the little documentation by Idelman (2009) and Jones-Casey et al (2011) on Mali.

Beside this challenge of developing almost a new concept, very little scientific documentation on Chad exists. Consequently, the literature review rather explored the situation of decentralization and land management in the African French speaking countries in order to draw the different elements to be analyzed in the case study. Based on data analysis and findings, the research developed a conceptual framework and thereafter it drew practical solutions specifically for the case of the municipality of Moundou.

Chapter Five: Country Profile and Research Background Information

5.1. Introduction

Chad is a landlocked country in the center of Africa, covered on its northern part by the Sahara desert. With an area of 1.284.000 km², it ranks as the fifth biggest African country out of the 54 that constitute the continent. The census of 2009 estimates the population at around 11.000.000 inhabitants with densities that range from 54 persons per square kilometer in southern zones to 0.1 persons in the vast northern desert region. Since 2002, the administrative subdivision of Chad counted 22 Regions. Each Region is divided into between 2 and 4 Departments, apart from the city of N'Djamena, which is divided into 10 Districts.

Figure 5.1: General Map of Chad



Source: United Nations, Department of Field Support Cartographic Section (2009)

5.2. Generalities

5.2.1. History

During centuries, Chad has served as crossroads for the Muslim peoples of the desert and Sahelian regions, and the animist African tribes of the savanna regions to the south. Before colonization, the northern and central part of the country were controlled by the powerful kingdoms of Kanem-Bornou, Baguirmi, and Ouaddai, and the southern regions were much less politically developed and remained splintered into small, local, tribal chiefdoms. Contact between the two regions was dominated by regular raids conducted by Muslims into the non-Muslim south to secure slaves for their own use and for trade into North Africa and the Middle East.

The first encounter with the western world happened in 1801 when Honermann, a German explorer reached a huge extent of inland water reserve that he will call later "Lake Chad" (Obenga as cited by Feckoua 1996:9). In 1891, the French entered Chad, establishing their authority through military expeditions that reduced the politically backward south and by defeating the armies of the northern and central Muslim kingdoms. In 1900, Emile Gentil defeated Rabah in the battle of Koussery (Cameroun), and France established the "military territory of Chadian countries and protectorates" by decree in the same year.

France ruled southern Chad ("le Tchad Utile," or Useful Chad) as a typical colony with civil administration, basic education, urbanization of major centers, and missionary activity, while exploiting the region's agricultural potential. The French ruled northern and central Chad ("le Tchad des Sultans," or Chad of the Sultans) differently, confining the colonial footprint to a few military garrisons and relying on traditional tribal and religious leaders to administer the local populations.

Together with what are today Gabon, the Central African Republic, and the Republic of the Congo, the French made Chad part of a colonial federation called "French Equatorial Africa", under a governor with residency in Brazzaville in what is now the Republic of the Congo. In 1958, Chad was proclaimed a Republic with the dissolution of the territory of French Equatorial Africa, and became autonomous member of the French Community. In August 1960 the country became an independent nation under its first president, Francois Tombalbaye.

5.2.2. People and Societies

The Legacy from both French settlers and Arab traders ended up with two official languages in Chad that are French and Arabic. However, around two hundreds ethnic groups exist in the country, with Islamic influences in the north and center, and more Christian and animism influences in the South. Southern Chad is inhabited by a variety of ethnic groups dominated by the Sara people. Although culturally related, they traditionally had no strong centralized polities like northern ethnic groups. The slave raiding by some of the groups from the north left deep

scars in the fabric of Chadian society. Therefore, the promise to end slave raiding stimulated the Sara peoples to welcome the French colonists in the 1900's.

During the colonial era, the southern part of the country received most of the attention in the domains of economic and educational investment. The hostilities encountered in the north mingled with the little productive desert, made its people mistrusted and relatively neglected. Therefore, people there kept more to their "traditional" ways in a cultural and educational sense. The northerners remained relatively excluded from national politics during the earlier independence.

However, the revolt of the Centre-East peasantry in 1960 opened the wound of instability that will last until today and will switch the power to the Northern people in 1974 after a military coup (Magrin 2001). In fact, the country experienced recurrent civil wars in the 1970s and 1980s, resulting from exclusionist state policies, authoritarianism, and divergent views on the role of the state, but ended up fuelling group tensions between the north and the south.

With a State ruled now by elites emanating from the northern and eastern Islamic groups, the country is forced towards further Islamic orientations in education and diplomatic relationships. While Chad remains a "secular state," the rivalry between the faiths and the strengthening of Islam in public life is getting another toll on long-term social cohesion.

5.2.3. Economy

The Chadian economy relies on agriculture dominated by cotton production, and an inadequate transportation sector. In the early 1980's, the World Bank estimated that approximately 83 percent of the country's economically active population worked in agriculture, 5 percent worked in industry, and 12 percent were engaged in services, including government employment, trade, and other service activities (World Bank, 1987). Geography and climate played an influential role in the country's economy. The *Soudanian* agricultural zone in the south, the *Sahelian* cattle herding in the center, and the least productive Sahara desert in the north.

In 2003, with the first barrel of the Chadian oil officially transited to Cameroon to be shipped to the world, Chad was offered new reasons for economic optimism. The project started under the first president in the late 1960's, with explorations in southern Chad by the American CONOCO (Continental Oil Company). Following the outbreak of civil war in Chad in 1979, oil prospectations were suspended with CONOCO withdrawing from the project in 1982. Therefore, plans to exploit the found oil reserves and to build a small refinery to serve Chad's domestic needs were delayed until early 1993 when ExxonMobil acquired CONOCO's interests and started construction activities in 1998.

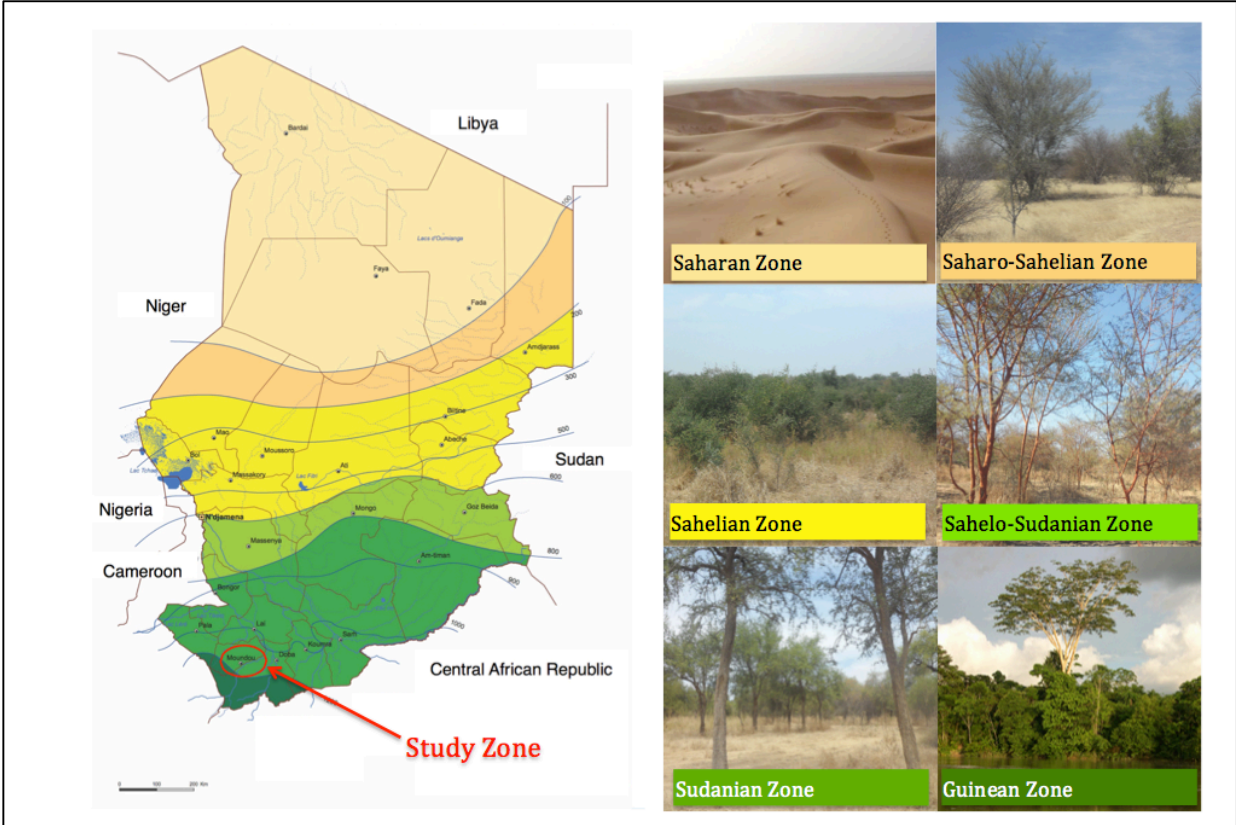
In late 2003, oil production from the project area (Doba Basin, southern Chad) commenced and peaked at around 175,000 barrels per day in 2005. By the end of 2012, the project had sent

approximately 450 million barrels of crude to world markets, as reported by the US EIA⁵. In 2006, the Government of Chad established a national oil company in response to a growing sector. Known as Société des Hydrocarbures du Tchad⁶ (“SHT”), the company has the main purpose to retain a carried interest in the exploration phase and a share of production in oil and gas development in Chad.

5.2.4. Environment

The climate of Chad is comprised of four bioclimatic zones. The northernmost Saharan Desert zone averages less than 200 mm of rainfall annually. The central Sahelian zone receives between 200 and 600 mm of rainfall and has vegetation ranging from grass/shrub steppe to thorny, open savanna. The southern zone, often referred to as the Sudanian zone, receives between 600 and 1.000 mm, with woodland savanna and deciduous forests for vegetation. Rainfall in the small Guinea zone, limited to Chad's southwestern tip, ranges between 1.000 and 1.200 mm.

Figure 5.2: The indication of different climate zones



Source: P-SIDRAT, 2013 as illustrated by Author

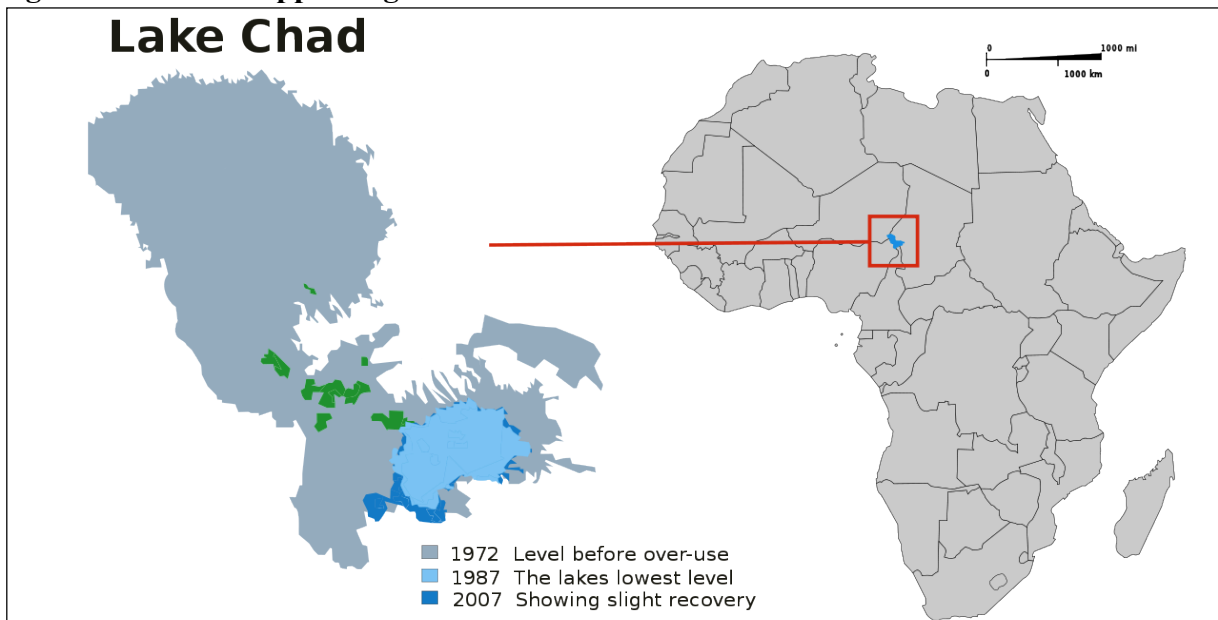
The great contrast in the climate also provides a wide range of fauna and flora across the country. However, this biodiversity undergoes notorious pressures from the spread of desert, recurrent droughts and increasing demography. Numbers of species like Black Rhinoceros have

⁵ United States Energy Information Administration
⁶ Company of Hydrocarbon in Chad

already disappeared from the Chadian territory and others remain endangered. The necessity of actions for conservation lead the government to the establishment of national parks and reserves in some of the sensible ecologic areas. The national park of Zakouma created in 1963 covers more than 300.000 hectares and constitutes a haven for around 64 mammal species, and more than 300 bird species.

The country's topography is generally flat, with progressive elevation towards north and east. Emi Koussi in the northern Tibesti Mountains rises as the highest point at 3.415 meters. The Ennedi Plateau and the Ouaddai highlands in the east complete the image of a gradually sloping basin, which descends toward the Djourab Depression and the Lake Chad in the West as the lowest point at about 250 meters. The highlands of Guera rise at 1.500 meters in the Center, and the Mounts of Lam at about 1.600 meters in the South.

Figure 5.3: The Disappearing Lake Chad



Source: United Nations, based on NASA satellite images (2012)

Lake Chad, one of the most important wetlands on the continent and home to hundreds of species of fish and birds, shrank dramatically over the last decades due to increased water use and inadequate rainfall. The lake, the second largest in West Africa, covered 25.000 km² in 1963 but had decreased to less than 3.000 km² in the recent years (Musa et al, 2008:4). The impact on local economy could be measured with the hundreds of internal displaced because of the impoverishment of the lake. Irrigation and fishing could not any longer sustain local livelihood. The lake also provides a critical, strategic area for global biodiversity, being home or supportive to 120 and 372 fish and bird species respectively (ibid). Its adjacent land serves as an important grazing area for livestock as well as for agriculture. The situation or Lake Chad is one the top priorities as nations of the world discussed about climate change and environment protection twenty years after the remarkable Rio conference of 1992 in Brazil.

5.3. Discussion

From this huge extend of land, Chad has most of its activities concentrated in the Southern zone. It has started with the colonial administration that found people from the South more responsive to their politics and culture. At the same time, the climate determined the productivity of major economic activities such as cotton cropping. The settlers considered the to be divided then into a “useful Chad” and a “useless Chad”. Quite sarcastic, this definition of Chad continues to shape the political atmosphere. As long as the northern population feels to have left behind during the colonization and in the earlier times of independence, they feel the right to reverse the vapor. Although, most of the industrial activities such as oil production are located in the South, development of infrastructures are more apparent in the northern regions.

This lack of consideration towards the South contributes also to the depletion of natural resources. The demography already put pressure on the resources, but the increasing of mining activities without serious impacts assessments does not offer means for mitigation of negative effects. With the half-north covered by the desert, the country should rather looks in ways and means to preserve at the best the productive soils of the South. Ten years after the first barrel of oil, with hundreds of thousand trees destroyed, not a single project to restore some of the important species that have been shopped down in the implementation of facilities. The trend continues with at least four mining companies in the single region of Western Logone registered in 2013.

Chapter six: Land Management in Chad

6.1. Introduction

Considering land management as the process of managing the use and development of land resources, several entities enter into action as part of their duties. However, the key element in this process of putting land resources into good use is the regulation provided by the texts under the Ministry of Domain and Land Tenure. The inherited laws from the colonial administration offer a dualistic approach in the management of land resources: customary and statutory tenure systems.

The law n°23 of 22nd July 1967 about the status of the national property presents the national domain comprised of public and private domains belonging to the state.

The law n°24 of 22nd July 1967 about the types of property and the customary rights defines the modalities of land acquisition.

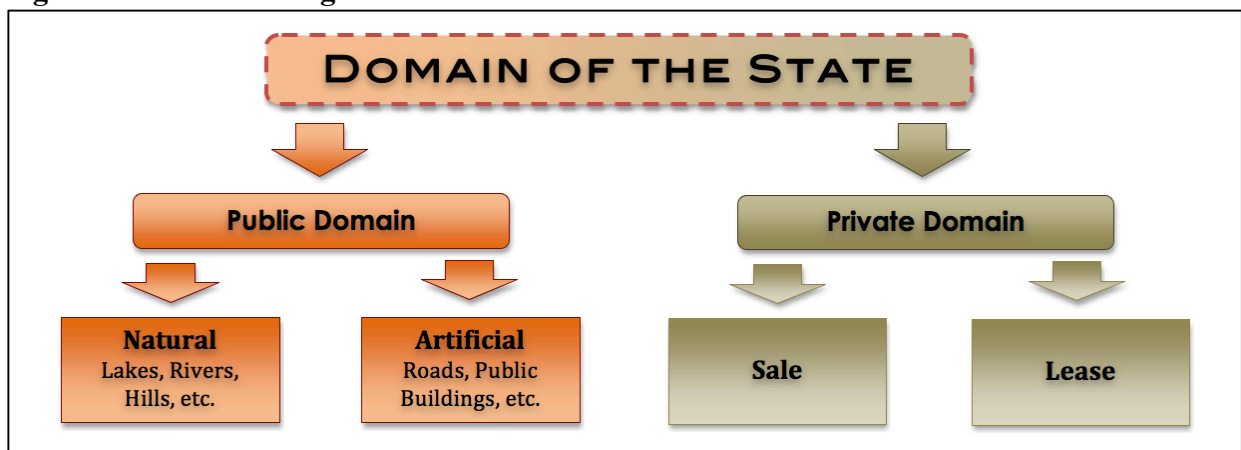
The law n°25 of 22nd July 1967 about the limits of land rights defines the procedures of expropriations and the friendly compensations between parties.

In sum, all lands belong to the State and can be offered rights of ownership to individuals or group of individuals (organizations, enterprises, etc.) under customary or statutory systems.

6.2. Domain of the State

In Chad, all lands form part of the domain of the State and are classified into public and private domains⁷.

Figure 6.1. Land Management in Chad



The public domain encloses the natural property and the artificial property. The second Article of the law n°23 cites the elements of the natural property as water sources, lakes, islands, isles, beach, caves, and classified forests. Roads, airports, public monuments, etc. are cited as examples of artificial property.

⁷ Article 1 of the Law 23 of July 22nd 1967 on the Statut of Domanial Goods

The private domain comprises all lands that have not been classified as public, and that can be yielded for private usage, regulated by either the statutory or customary tenure systems.

6.3. The Customary Tenure System

Traditional land tenure regimes continually evolve over the years, and have never been static. Before colonization, they evolved according to changes in settlement, political systems (conquests, internal political change) and technical and religious developments (Faye 2008: 6). The common consideration of the tenure system under the customary regulation reflects always the notion of common property. However, with the cultural diversity in Chad, different forms of customary tenure systems coexist. Some of the tenure systems were influenced either by local traditions or the Islamic religion. However, regardless of the influences, land has always been considered as entrusted by the ancestors and/or God to be given back to the future generations. These common assets could not be exchanged, but rather accessed by community members according to their social and family status.

Source of Influences	Primary Land Use	Women access to land	Women inheritance of land	Key element to land
Animism	Agriculture	Yes, but limited	No	Soil Productivity
Islam	Herding	Yes, but limited	Yes, but not equally	Water resource

With the municipality of Moundou located in the South, the only found influences are those of animist practices throughout the Western region, although it hosts a great number of nomadic herders. Lineage or clan control is especially prevalent in the region. Generally the person who cleared the land first for different purposes is entitled to its use and has the full rights to pass it down to his descendants. He become later the village or land chief, as the settlement continues with his relatives and that the lineages become large as well as the areas of land they control. The land chief continues then to allocate land to those in need. It happens that lineage lands become scarce. Therefore, sons set out to unoccupied lands out of the frontier to break new ground and begin the process once again.

One major issue raised under customary tenure system is the gender issue. Although women play an important role in the exploitation of land, they rarely have access to it. Within lineage groups, family lands are managed by eldest males through a variable system of land use rights according to cultural and/or religious influences. Under customary law with animism influences, at a man's death, his property is either inherited by his adult sons or repossessed by his family if he has no or minor children. Under Islamic influences, female relatives and spouses are accorded shares, but in many cases half or one third that of a male in a similar position. This difference in treatment between men and women is usually explained by reference to the fact that female relatives are called to leave their community once married, and that a wife is entitled to maintenance from her husband, in terms of shelter, food, clothing and health care.

The other noticeable difference between the two groups resides in the fact that the key element of interest towards land slightly differs and highly motivated the settlement in one location. Most communities with Islamic influences are either nomadic or semi-nomadic herders, and their principal source of interest in a permanent or temporary settlement is access to water resource. While within communities with animism influences where pluvial agriculture remains the main activity, soil productivity determines their interest towards land because “*water can always come from above*” as they use to say. With the diminution of resources, the two communities often mingle together. Herders move further to the south during dry seasons, which allow them access to greener pasture. Their settlements in the outskirts of villages are done in accordance with local authorities, which include a number of requisites.

During a peaceful cohabitation, farmers and herders hold mutually beneficial relationships (trading or selling manure, crops, milks and other goods). While, settled communities welcome herders to use their wells and/or other water source, grazing on agricultural fields after harvest leaves dung that improves the soil. These relationships are however increasingly becoming strained. Recurrent conflicts over land uses emerge between farmers and herders. Farmers complain about the uncooperative behavior of herders, while herders complain about rigid access to land resources. These conflicts can be very violent, often ending in deaths.

In the early independence, Chadian authorities delimited pasture route for nomadic herding, especially during rainy season in order to avoid crops destruction. However these routes have been suppressed following the civil wars of 1979 and 1982. Therefore, land under cultivation expanded into traditional transhumant herder routes, and accesses to water sources such as wells or riverbanks blocked in many areas. The reduced availability of land both for cultivation and grazing is one of the major sources of conflicts, added to the lack of objective decision from the authorities that tend to favour one side against the other.

6.4. The Statutory Tenure System

Access to land under the statutory system in Chad obeys to five types of procedures according to the nature of uses.

- (1) **Freehold:** landowners hold registered land indefinitely. The landowner is allowed to use the land in any manner consistent with the laws governing land use in Chad.
- (2) **Leasehold:** The landowner grants the tenant exclusive possession of land, usually for a specific period of time. In return, the tenant usually pays rent or service under specified terms and conditions that may vary.
- (3) **Long Leasehold:** The land administration grants a lease for commercial purpose during a period of 18 to 99 years.
- (4) **Temporary Occupations:** The State grants a legal agreement authorizing the temporary occupation and use of land for social and non-profit activities for such a period of time and under certain terms and conditions. According to the size, the demand can be

addressed to the village/land chief (less than 5 hectares), to the Governor (less than 20 hectares), to the central administration for higher surfaces.

- (5) **Concessions:** The State grants land for stipulated services or a promise that the land will be used for a specific purpose.

Individual access to land obeys to the procedure of freehold and leasehold. Under the statutory system, the process begins at municipalities level.

The **Urban Development Division** of the municipality is responsible for planning all the land within the municipal boundary. Activities of this division include identifying and planning redevelopment areas, renewing blighted urban areas and monitoring development to ensure compliance with the development program in accordance with master plans of municipalities.

The **Cadaster Division** provides land survey services to the municipality, prepares and maintains cadastral and topographic maps. The Director of Cadastral is responsible for coordinating all public sector mapping activities and for maintaining records of all maps, plans and land surveys which are conducted by government agencies. Because of a limited number of technicians, the majority of municipalities in the regions have only one technician that cumulates the duties of director and field technician.

The **Land Finance Division** (“Service des Domaines”) is responsible for preparing and registering land title. This division receives the cadastral plans and after estimation, charges the value of land to prospective owners before transferring the file to the mayor office.

The **Office of Mayor** is responsible for preparing and issuing titles to land owners (after recommendations from central land administration), resolving disputes involving land ownership, etc.

6.4.1. Registration of Urban Lands in Chad

The Law N°006/PR/2010 about the fundamental principles for urban land management, presents the “Master Plan for Urbanism” (SDAU⁸) as the main document in any decision related to spatial management of urban entities. However, due to the technical expertise it requires, most cities rather work with the “Referential Urban Plan” (PUR⁹), a non-exhaustive document that does not require any specific pre-analysis. Therefore, the development of urban lands in Chad relies on two principal procedures: “*Lotissement*” (Land allotment) and restructuration.

Lotissement is the allotment process of unoccupied lands (in terms of building) with adequate urban infrastructures for further settlements, according to the 20th Article of the Law N°006/PR/2010. The urban development division provides the background information on the area to be plotted with detailed information to the cadaster division for the implementation. The

⁸ In French : Schéma Directeur d’Aménagement et d’Urbanisme

⁹ In French : Plan Urbain de Référence

municipality retrieves unoccupied lands and allocates them according to the process described in the table 7.1.

Urban restructuring consists in giving urban configuration in settlements with irregular structure, usually under customary ownership rights. Either landowners or the municipality can initiate the process through the urban development and the cadaster divisions. Urban restructuring helps in the materialization of roads and reserves for other public infrastructures. At the same time the process offers the opportunity to landowners to introduce their application for land titling since all lands in the project area get materialized. In this case, the process begins from the step 3 in the table 6.1 after proof of customary ownership (land/village chief approval document, sale contract, etc.).

Table 6.1. Land Titling Process in Chad

Steps	Venture
1. Application for land attribution	Municipality
2. The Urban Development Division chooses prospective owners on the basis of “first come, first served”.	Municipality
3. The Land Finance Division receives part of the land value and the total amount of land marking fees.	Municipality
4. The municipality makes a public announcement in the local official newspaper or through poster campaign for 30 days in case of any overlapping ownerships.	Municipality
5. The Land Finance Division receives the total remaining fees and sends the application file to the Ministry of Domain and Land Finance.	Municipality
6. The Minister of Domain and Land Finance signs the ownership document (<i>cession de gré-à-gré</i>), and notifies the applicant.	Ministry of Domain and Land Tenure
7. Upon observation of investment on the land, the landowner can send a request for land title.	Ministry of Domain and Land Tenure

Source: Field Investigation

The official system of land registration in Chad is called the *cadastre*, maintained by the Ministry of Domain and Land Tenure. The title plans called *plans cadastraux*, are graphical plans of the boundaries in a given municipality. The plans show numbered plots on which the ownership of land is based, without details on the owner. This reflects the legacy of the French system of cadaster created in the Napoleonic era for land taxing purposes. Consequently, in most cases the cadaster does not solve boundary disputes, nor constitute an ownership proof. In fact, cadaster plans can be contested. Only the “*Cession de gré-à-gré*” (Step 6 in the table 7.1) gives the right of ownership prior to land title. However, the complexity of the registration process leaves majority of landowners with only cadastral plan, even though it does provide little protection. In case of forced eviction they receive little, sometimes no compensation, as noted recently with the extensive cases of land expropriation in the capital city.

6.5. The Difficult Duality of Tenure Regimes in Chad

In their settling process in Chad, the colonial administration imported the French regime of statute law to ensure their interests, but operating alongside existing customary regimes. The same scenario continues with the independent administration as it pursues the legacy of legal pluralism in land administration. If the system offered opportunities of access to land to low-income households in its early time, realities on the ground tend more and more to relegate customary law to second-class status. Land readjustments in Chad usually occur in areas under customary uses, which means inexistence of formal ownership documents. However, the texts on tenure regimes offer various alternatives for compensation in case of expropriation on customary-owned lands.

The **Law n°23 of July 22nd 1967 on the status of domain goods**, at the Article 4 states *“Individual or communities who, before the adoption of the present law, benefited of customary rights on the public domain, continue with the same rights. However, the State authority can expropriate them after compensation”*.

The **Law n°24 of July 22nd 1967 on land tenure regimes and customary rights**, states at the Article 15: *“The State authority can matriculate vacant lands. However, whenever customary rights exist on those lands, the State authority can, after identification, either suppress the existing rights after compensation or propose to owners other equivalent rights”*.

Knight (2010:4) affirms that problems always occur when one system does not recognize the other as valid, and the denial of the strength and validity of customary land rights has resulted in widespread tenure insecurity across Africa. Although the existing texts on land tenure regimes in Chad support in general the practice of customary tenure system, on the ground some practices tend to suppress these rights on the profit of the formal ones, especially when the two systems collide. From the example of the Municipality of Moundou, several reasons can explain the situation:

1. The increase in value of rural lands in the surrounding of urban entities arouses keen interest from cadaster officials. The expansion of urban land uses moves low-income households to the suburban and rural communities because of the very high price of land in the inner cities. This outer migration increases the demand on rural lands, and therefore its value. Cadaster officials in many cases take advantage of the lack of formal ownership documents to expropriate and reallocate lands under customary regimes after land readjustments.
2. The subjective interpretation of “land in use” and “vacant land” leads to abusive expropriations. The other option to prove ownership on customary land when a written document does not exist is to show activities on the land, according to the Articles 13, 14 and 15 of the Law n° 24 of 22nd July 1967 on the property regime and customary rights. These activities vary from one region to another (Article 14) and the mode of

land exploitation. However, it usually happens that cadaster technicians limit this proof to the presence of planted trees, wells, or recent labor like chopped trees and agricultural residues.

3. The lack of knowledge from rural communities about their rights and their limited means of enforcement puts them in a state of weakness. With little or no formal education, rural landowners usually underestimate their rights of ownership when they do not hold written/formal proof. Even though they are aware of their rights, they rarely have access to fair justice or do not know how to reach juridical institutions. It frequently happens that cadaster technicians “threaten” with the notion of all lands belonging to the national domain and that the State authority can expropriate for public services.

The context of legal pluralism in Chad is not well defined in the texts and it desperately lacks enforcement institutions; therefore the need to offer a more comprehensive legal framework for customary land rights is a critical component to ensure tenure security for the rural poor. As noted by Knight (2010:30), custom is rapidly changing in response to number of factors. Environmental degradation, climate change and land speculations by investors decrease constantly the amount of fertile, arable land available for allocation to members of a community, particularly in peri-urban areas closer to main roads, markets, schools, hospitals and other infrastructure. As land becomes scarce, it grows in value, and becomes more individualized with low-income households and other vulnerable groups losing their lands to individuals with wealth, knowledge and access to powerful decision-makers (*ibid*).

6.6. Discussion

Unlike many African nations that launched substantial reforms of their land laws, Chad continues with its texts inherited from the colonization and slightly modified in 1967. Today, the dichotomy between the outdated laws and the reality on the ground is apparent and poses quite a number of difficulties for enforcement and leaves way to subjective interpretations and abuses. In 2004, the Government attempted to reform the texts with a one-week forum that received participants from different ministries. Since then, every single attempt to make the new modified texts adopted by the House of Parliament fails. Quite understandable when noted that these modifications are not based on a clear vision about land management and/or even a comprehensive land policy.

Deininger et al (2004:1) noted that many countries in the developing world engaged into legal changes motivated mainly by the desire to provide a more appropriate basis for private investment and increased productivity of land use, to overcome the legacy of colonial laws, to reduce the potential for conflict, and to empower local governments and establish a basis for effective decentralization. However, characteristic to these countries, attention is most often paid to the development of an “ideal” or ”perfect” law, but less attention is paid to the practices prevailing on the ground, and public debate and agreement with major stakeholders (*ibid*). In

Chad for example, the bid did not take into consideration major issues like pasture route, land grabbing for mining industries, land readjustments, etc.

Chapter Seven: Municipality of Moundou and the Dynamic of its Restructuring

7.1. Introduction

Surrounded by three important sources of surface water namely Lake Taba on the North, Lake Wey on the West side and the Logone river on the South-East, the city of Moundou is known for its warm and seasonally wet climate compared to other major cities of the country. It is the second largest city in Chad, and the capital of the region of Western Logone. The name “Western Logone” refers to the name of the River, and in opposition to the region of Eastern Logone on the east side. Through its strategic position on the main access road serving the other major towns in the Southern Chad and those that connect to neighboring countries like Cameroon and Central African Republic, the city of Moundou remains a node of communication and an important crossroads in the region. Considering also the fact that the city hosts a large number of industrial units, it is often described as the Chadian "economic Capital" and the "Door of the Southern Zone".

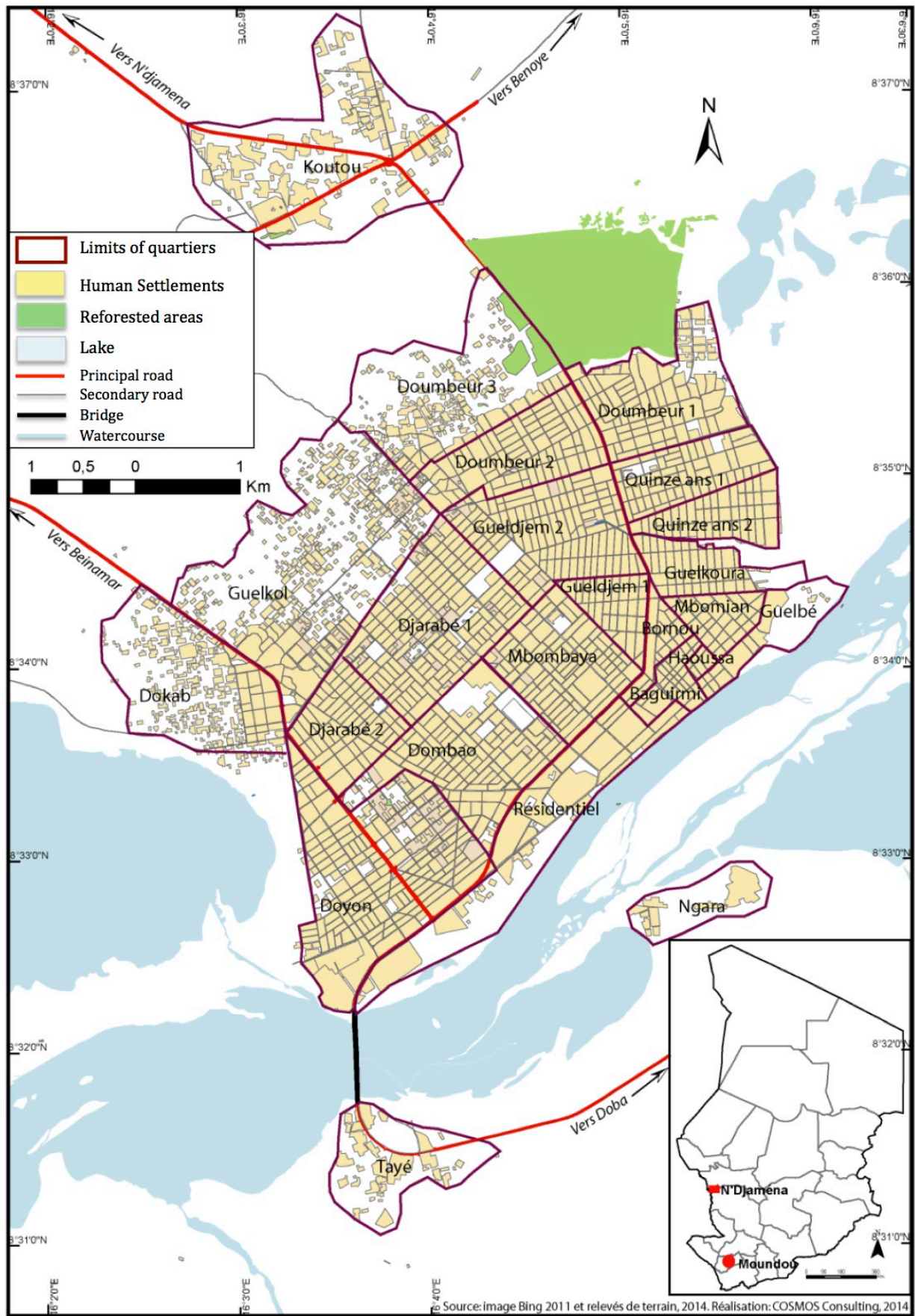
Administratively, Moundou is ordered as capital of the region of Western Logone, in accordance with the provisions of the organic laws (No. 002/PR/2000 and 007/ PR/ 2002) of February 16th and June 5th 2002 establishing the status of decentralized territorial communities. The Municipality is divided into 7 districts with a total of 27 *Quartiers*. Moundou has an administrative organization by the decree N°39/PR/MISD/99 of February 1st 1999 on the establishment of districts of the municipality of Moundou. This decree is put into application by the municipal decree N°59/PLOC/CM/99 of July 7th 1999. With the Act on the "Status of Decentralized Territorial Collectivities" passed in January 2000 by the Chadian House of Parliament, the municipality of Moundou is now a local community administered by a municipal council composed of elected officials for a six years term, renewable.

Table 7.1: Administrative Structuration of the Municipality of Moundou

<i>Districts</i>	<i>Quartiers</i>
1 st District	Ngara, Doyon, Tayé, Dokab
2 nd District	Guelbé, Mbomian, Guelkoura
3 rd District	Dombao, Djarabé1, Djarabé 2, Guelkol
4 th District	Baguirmi, Bornou, Haoussa
5 th District	Quinze Ans I, Quinze Ans II, Doumbeur I
6 th District	Mbombaya, Gueldjem I, Gueldjem II, Dournbeur II, Doumbeur III
7 th District	Doheuri, Koutou, Guelmbague, Belaba, Jericho

Source: Municipality of Moundou, September 2014

Figure 7.1: Administrative Plan of the Municipality of Moundou



Source: image Bing 2011 et relevés de terrain, 2014. Réalisation: COSMOS Consulting, 2014

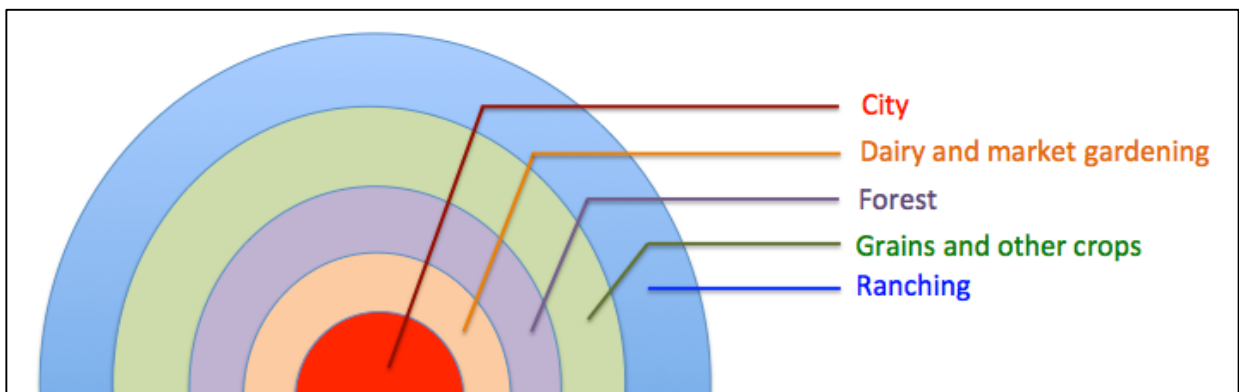
Source: Municipality of Moundou, 2015

Although the city hosts today several ethnic groups of Chad, the autochthonous people known as the Ngambai People have settled the area for several centuries before any other group. The Ngambai with other ethnic groups composed the Sara group that constitute the largest ethnic group in Chad, making up to 30% of the total population, mostly non-Muslim people, rather Christians with most practicing traditional faiths (Lemarchand, 1980:4). Without any written document, the origin of the Ngambai people is very difficult to determine with accuracy likewise any other African culture. Based on oral tradition and little found artifacts, historians can only make speculation especially when it comes to look very far in the past. Magnant (1986) and Magrin (2001) for instance speculate that the Ngambai originate from the Ouaddai in Eastern Chad and probably Sudan. They migrate progressively to the current settlements in the 15th Century, and have settled permanently in the 18th Century (*ibid*).

7.2. Land Uses in the Municipality of Moundou and in its Suburban

In the mid 19th century, Johann Heinrich Von Thünen (1783-1850) developed a Model of Land Use based on agriculture and its driven forces near urban areas (Fujita and Thisse, 2012). Based on the transport cost factor, the model generated four concentric rings of agricultural activity. For this theory to be relevant, Von Thünen assumed that the city is located centrally within an “Isolated State” which is self sufficient and surrounded by an unoccupied wilderness on a completely flat terrain with consistent soil quality and climate throughout the State. The four concentric rings are composed of four main land activities: intensive farming, timber and firewood, extensive fields crops, ranching and wilderness.

Figure 7.2. Von Thünen Model of Land Use



Source: Author’s illustration, as described by Fujita and Thisse (2012)

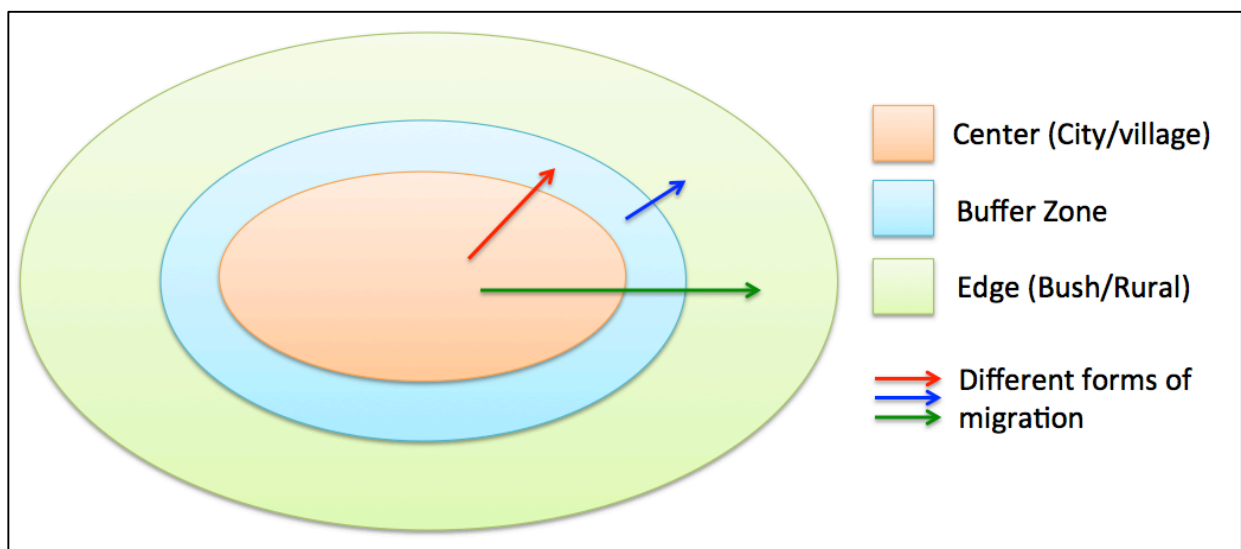
- **Dairying and intensive farming** occur in the ring closest to the city. Since vegetables, fruit, milk and other dairy products must get to market quickly, they would be produced close to the city
- **Timber and firewood** would be produced for fuel and building materials in the second ring. Before industrialization (and coal power), wood was a very important fuel for heating and cooking. Wood is very heavy and difficult to transport so it is located as close to the city as possible.

- The third ring consists of **extensive fields crops** such as grains for bread. Since grains last longer than dairy products and are much lighter than fuel, reducing transport costs, they can be located further from the city.
- **Ranching** is located in the final ring surrounding the central city. Animals can be raised far from the city because they are self-transporting. Animals can walk to the central city for sale or for butchering.
- Beyond the fourth ring lies the **unoccupied wilderness**, which is too great a distance from the central city for any type of agricultural product.

One important point that emerges from Von Thünen model is the illustration of the balance between land cost and transportation costs. The value of land increases, as one gets closer to the center city, which is still relevant in present days. However, the driven forces in most Chadian rural communities regarding interest for lands far from the center are rather tied to soil productivity and the size of parcels.

In fact, with a shifting and extensive agriculture system, farmers had no other choice than to move far from the habitation for more productive lands, although transportation could appear as a hindrance in this case. Over the years, not only arable soil became scarce, but also the population increases. Therefore, urbanization added more pressure on land resources; people tend to move more and more in the outskirts of villages or cities, especially those who can no longer afford the increasing cost of life in the center.

Figure 7.3: Adapting the Von Thünen Model to the Chadian Context of Land Use



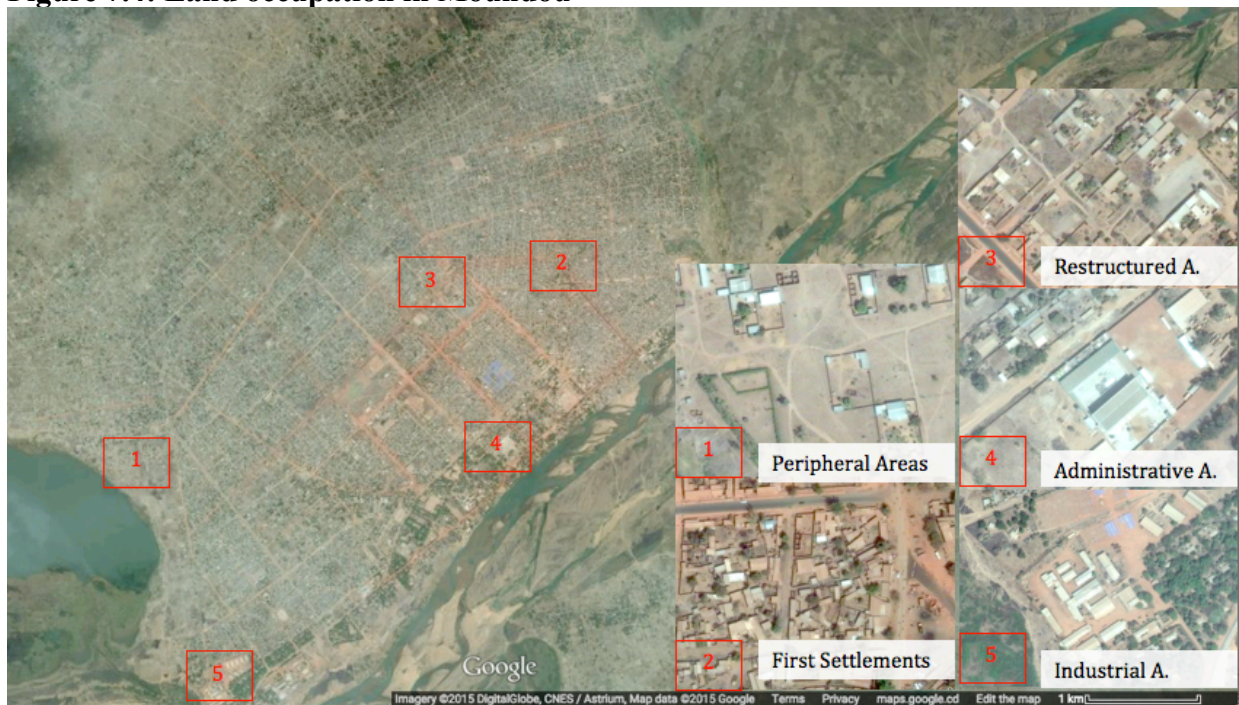
Source: Author's illustration, based on field investigation, 2013

Considering that the mode of land use differs progressively from the center to the edge for a given community, three essential zones can be identified. However, the form of occupation in these three zones differs from whether the center is rural or urban. The buffer zone is a kind of transitional area between the center and the edge. In rural settings, it represents quite often the

boundary limits between two communities or a transitional zone towards an open space (bush) that can be later settled for those seeking new agricultural lands or home establishment. In cities, the buffer zone represents the urban fringe with usually quite a number of informal settlements where rural and urban land uses mingle together.

Although the difference that could be drawn between a town and a village depends on the local realities, it can be however assumed that a city or town is a settlement with decent housing, sanitation, utilities and transportation systems. While a village still have the main configuration of rural activities such as agriculture and open spaces. In Chad, the concept of a city is the lack of rural activities. Therefore, whenever a locality change the status from rural entity to urban one, the conversion of agricultural land into housing, commercial or industrial settlement seems to be the driven force of local authorities. Paradoxically, these conversions of land uses are not preceded by any land development. Roads are limited by landmarks but never built or hardly maintained, and facilities like sewage systems or streetlights are almost inexistent.

Figure 7.4: Land occupation in Moundou



Source: Google Maps as illustrated by Author

Even if cited as the second biggest city in Chad and the economic capital, Moundou still lacks basic infrastructures. With the high unemployment rate, the municipality looks more like a town with pockets of rural entities sparsely distributed inside. The administrative and industrial areas are structured and run alongside the Logone River. The structured areas looks more organized than the first settlements that are rather saturated. In fact, those structured areas were subject to allotments and restructurings as they were sparsely occupied, therefore easier to correct the configuration compared to the first settlements. Over the years, the dynamic of

settlement continues towards agricultural lands and villages in the peripheral areas, dictating the decision on the municipality boundaries.

7.2.1. The Industrial and Administrative Areas

The industrial area covers essentially the cotton industry facilities and the employees' lodges situated at the exit of the city on the border with the region of Eastern Logone. The facilities date of the colonial period and are still in good conditions although some renovations are still needed. The cotton industry remains the main activities in the municipality, and the local economy is highly tied to it as pictured by the social conditions of most of its employees that are among the highest class. However, as years pass by and with the uncertainty of the cotton price on the international market, the cotton industry in Chad knows hard times with huge impacts on local producers.

Picture 7.1: View of a Street and an Old Building in the Administrative Area



Source: Author (2014)

Moundou has a central administrative area, which dates back to the colonial period. This administrative area remains of "average size" and under-dimensioned in relation to the size of the city. The central area hosts several buildings that serve as administrative offices lodgments for local authorities such as the Governor and the Prefect. Most of these buildings however, are generally in bad conditions and need renovation.

7.2.2. The First Settlements and the Restructured Areas

Around the administrative and industrial areas, first settlements took place even before the colonial period but continue until the independence. These settlements were based on kinship without any administrative documents on ownership. At the image of Kibera Township in Kenya and the Favela in Brazil, the readjustment of these settlements is difficult because of the over-crowding. Only major streets were developed, meantime long corridors of just one or two meters wide run on hundreds meters in-between houses with irregular configurations.

Picture 7.2: View of Settlements in the Restructured Area



Source: Author (2014)

The municipality claims these lands to be on public domain and intend to soon or later demolish all the buildings. This probably explains why most of the residents live on a daily basis thinking that soon or later they will have to move to a place elsewhere. However, for the municipality to expropriate would require acknowledging a risky procedure. As land has become scarce and unaffordable for number of households even in the peripheral areas, any form of eviction in this oldest area would be easily subject to a massive protest. Meantime the municipality authorities need to provide documents that reserved those lands under the public domain.

7.2.3. Peripheral Areas

Moundou was once a rural settlement with a configuration as described previously by the adapted Von Thünen model, surrounded by a buffer zone made of open spaces. However, as the city expands its footprint, villages in the surrounding were progressively encroached. The peripheral areas of the municipality have this same configuration of rural entities with the difference that all pieces of lands have owners. Even marshes are landmarked for housing, and rice fields surround buildings on lands that owners delay to occupy. Roads, sanitary and water networks crucially lack in the peripheral areas.

Picture 7.3: View of Settlements in the Peripheral Area



Source: Author (2014)

Most of the dwellers are new workers that did not have the possibility in the past time to get plots in the inner city. Most of them anticipate on the extension of the municipality, which means that they would buy customary lands in the surrounding villages before the decision of annexation. Lands are then affordable with the only risk that readjustment could align great portion or the totality in a public domain (roads or reserve). However, at this low price most

people get big plots to limit the risks. The difference of price can range from twenty to hundred times more expensive after restructuring and allotment.

As it will be discussed later, the urbanization of these peripheral areas has an important impact on local livelihood since it affects all rural activities found there. Without a sound urban policy on urban planning, most of the lands necessary to meet the demand will always require conversion of agricultural lands. The abundance of those lands in the peripheral of new urbanized areas and their weak value explain their conversion into spontaneous settlements. In theory, urbanization in Chad is guided by the *Law N°006/PR/2010 fixing the fundamental principles in terms of urbanism*.

7.3. Urbanization in Chad under the Law N°006/PR/2010

As evidenced by the diversity of national urban definition summaries in the publications of the United Nations Population Division cited by McGranahan and Satterthwaite (2014:7), there is no international consensus on how to determine the boundaries of urban areas or identify when settlement is urban. The simple and standardized definition refers to population size and density criteria, but more often the expectation that urban settlements are to serve certain administrative functions. In Chad for instance, the attribution “urban” is mainly decided by decrees since the decentralization movement stipulated in the Constitution of 1996. These “urban” entities in forms of municipalities have the status of decentralized collectivities.

Urbanization on the other end, in conventional terms refers to a broad-based rural-to-urban transition involving population, land use, economic activity and culture, or indeed any one of these (McGranahan and Satterthwaite, 2014:6). Since definitions of what is or is not urban differ from one country to another, however, so do interpretations of what the designation urban implies. However, the term is frequently used to refer to changes in land-use for specific areas (usually on the periphery of urban concentrations) as this land becomes ‘urbanized’ and is sold and developed for urban use (e.g. the sale of plots for housing and/or other commercial purposes) (*ibid*).

The process of urbanization involves then a series of linked transformations, not only in where people live and what they produce, but also in how they live. Therefore, the necessity to regulate the process calls for a set of rules and regulations in order to sustain the different activities and living conditions in both urban and rural settlements. In Chad for instance, the *Law N°006/PR/2010* lays down the principles that aim to rigorously guide the process of urbanization for decentralized collectivities.

In the second Article, the Law stipulates that the State has the full prerogative on the conception of the policy, the regulation and measures when it comes to urbanism on the national territory. The third Article, however burdens the responsibilities on decentralized administration for the applications of urbanization measures in their territories. The central administration transfers

progressively to local administration the competences allowing them the management of these urbanization aspects in due respect to laws and regulation of the Republic of Chad.

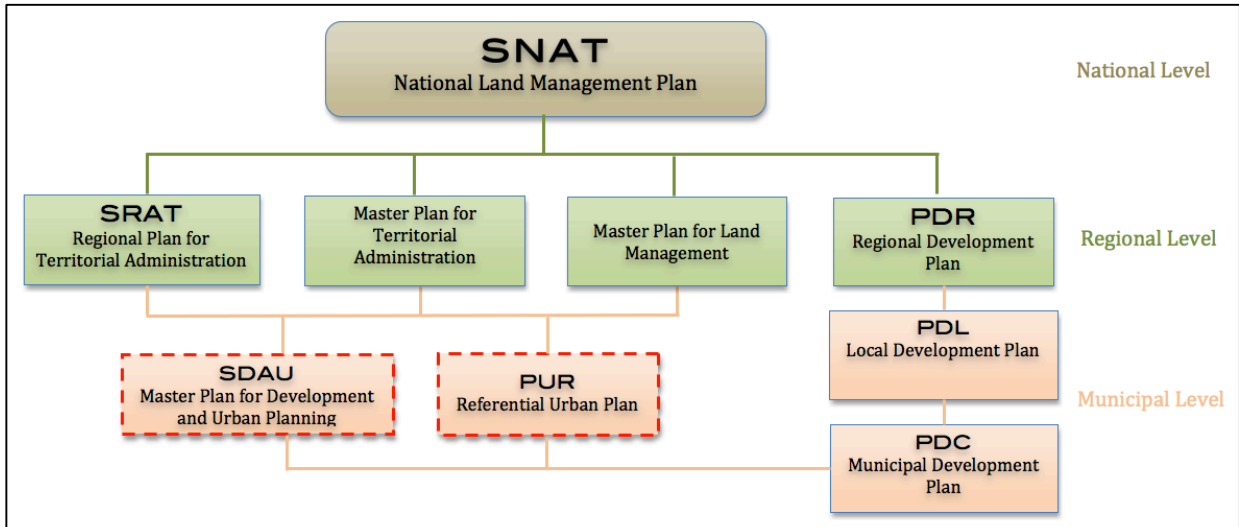
As found by Lwasa and Kinuthia-Njenga (2012:5), in most African countries, urban planning refers to physical land use planning, consisting of three key elements: first, an overall framework, usually a master plan, second, a set of planning and building standards and regulations and third, a development control system. Chad is no exception to the rule, as it appears in the Article 5 of the *Law N°006/PR/2010* on urban planning, which stipulates that the master development plan is the spatial framework for urban planning. It defines the transport networks and any other physical and economic development of urban centers.

7.3.1. The Different Tools of Urban Planning in Chad

The Ministry of Land Management does the conception of the master development plan at the national level covering more general orientations (SNAT). Municipalities have the prerogative to design and implement their own master development at local level, but they have the duty to inform the host ministry in order to get prior approval. When a municipality does not have the competencies, it can entrust the mission to a private or public institutions with relevant prerogatives. The municipality works then closely with the third party institutions to enclose at the best all the expectations.

According to the Article 10 of the *Law N°006/PR/2010*, urbanization is only possible in areas designated for urban settlements through approved documents of urban planning. Before occupation, land allotment must precede. Urban planning has for object to define first the vocation assigned to urban lands, expressed through planning documents, which serve as reference for the operational actions. The Article 12 cites the different documents allowing the development of cities in the national territory: The Master Plan for Development and Urban Planning (SDAU) and the Referential Urban Plan (PUR).

Figure 7.5: Presentation of Different Development and Planning Tools in Chad



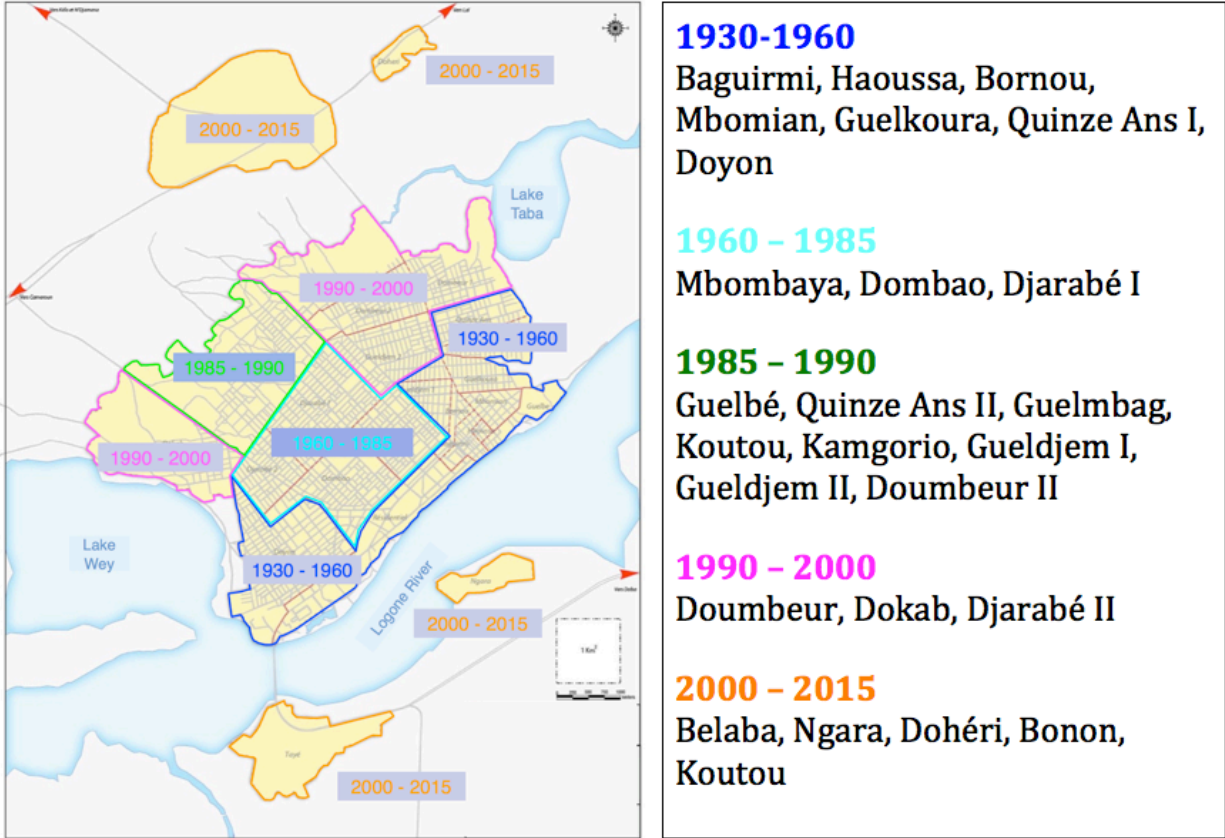
Source: Author’s illustration based on field investigation

The elaboration of SDAU and PUR are guided at the regional level by the regional plan for territorial administration (SRAT), the master plan for territorial administration and the master plan for land management, that are all part of the national land management plan (SNAT). At municipal level, the SDAU and the PUR are integrated into the municipal development plan (PDC). So far, none of these documents are really implemented. Efforts have been made for local development plans (PDLs) and PURs, motivated by external supports. However, their elaborations did not consider local participations.

7.4. The Urban Growth Dynamic of the Municipality of Moundou

The earliest account of Moundou history dates back to 1923 when the Sergeant Russel decided to install his military camp on the left side of the Logone River near the village Ngara, only occupied by farmers and fishermen. From the military camp, the city rapidly expanded to become the second largest one in terms of population density in Chad. The different sources of information recall five main stages of expansion, with major urbanization steps in the years 2000s.

Figure 7.6: The Dynamic of Urban Growth of the Municipality of Moundou



Source: Studi (2013:11) as illustrated by Author

The **First Stage (1930-1960)** covered the area of Baguirmi, Haoussa, Bornou, Mbomian, Guelkoura, Quinze Ans I and Doyon. The colonial administration started restructurings of autochthonous settlements alongside the Logone River, followed by forced evictions. The block represents today the administrative and industrial areas. In order to have more access to the

population for taxes and other economic purposes, restructuring continues on the surrounding areas. The irregularity of roads for example, pictures the unplanned character of the different restructurings.

The **Second Stage (1960-1985)** covered the area of Mbombaya, Dombao and Djarabé I. Unlike the first stage, the second was marked with the notion of spatial management put in place by the first post-independence administration. Based on aerial photography, the restructurings put in place during that stage offered more regular roads with the vision of sustainable planning as noted by the delimitation of reserved lands for future needs. However, this stage is marked by several conflicts: the coup d'état of 1975 and the two civil wars of 1979 and 1982 that split the country into two communities based on religion as manipulated by politics. Following these unstable situations, native of the region that lived in the capital city moved back to Moundou to get protection from their community supported by the former settler France. This massive migration increases informal settlements in many unstructured districts of the city and its suburban.

The **Third Stage (1985-1990)** covered the area of Guelbé, Quinze Ans II, Guelmbag, Koutou, Kamgorio, Gueldjem I, Gueldjem II, Doumbeur II. This stage is marked with the presidency of the dictator Hissen Habre that is current judged by the African criminal court for the crime of more than one hundred thousand Chadian during his office from 1982 to 1990. Hissen Habre was the brain behind the idea of “Chadians of the South” and “Chadians of the North”. Beside the fact that Moundou hosted most of the important economic activities (sugar and cotton industries, brewery, etc.), the government of Hissen Habre gave little attention for local development. The city lacked of technical and financial supports for land development. The recurrent assassinations of Southern elites across the country and mostly in the capital city added to the migration phenomenon to Moundou and increased the movement of informal settlements. Without consequent means, the local land administration had no choice but to restructure some of those settlements by portions.

The **Fourth Stage (1990-2000)** covered the area of Doumbeur, Dokab and Djarabé II. With the seemingly end of dictatorship, the feeling of a more secured environment motivated settlements further from urban districts, encroaching principally on rural activities. The official recognition of informal settlements as being part of Moundou increased land speculations and sent low-income households further in the outskirts for more affordable lands.

The **Fifth Stage (2000-2015)** covered the area of Belaba, Ngara, Dohéri, Bonon and Koutou. This stage is one of the most impacted in terms of economic activities and public infrastructures: In 2001, the construction phase of the oil project in the Eastern Logone started with Moundou as the heart of most economic transactions; In 2005, the development of the missing 100km out of the 500km that links Moundou to the capital city Ndjamená; In 2007, the inauguration of the road linking Moundou to the Cameroonian border; in 2008, the construction of the road towards the Central African Republic border. With these major infrastructure

projects, lands around the city and its major access roads gained in value. As lands gained in value, so increased the number of land related conflicts. Also, this stage of urbanization corresponds to the different decrees of municipal restructuring following decentralization in Chad, with readjustment of rural lands.

Known to be essentially farmers and hunters, the Ngambai people have a very spiritual connection with land that sustains their livelihood. They follow a general concept that considers land as owned by spirits (spirit of water, spirit of land, spirit of hunting, etc.) under a supreme God. Therefore, individual ownership cannot be claimed as known today with the statutory system. However, the configuration of today's land occupation results from indigenous land uses that has evolved over history, but still very present even in this modern civilization.

7.5. Municipal Restructuring and Land Readjustment in Moundou

When Sergent Russel settled in the surround of the Logone River in 1923, three villages were incorporated to form what is known today as the municipality of Moundou. Initially, Bebakor, Guelmi and Nondal were villages of fishermen and farmers. In 1926, the French colon created the company "Société des Cotons du Congo", and built a cotton ginning plant near the Logone River, which also marked the first cadastral plotting of Moundou. In order to secure the lodges and other infrastructures, the French settlers registered their occupied lands and those for future development. As the cotton industry and the settlers in the surrounding began to employ, population began also to increase.

As in response to the demographic pressure, progressively the city encroaches on neighboring villages in form of annexation. In the early stage, the expropriation that occurred with the implementation of the first cadastral plan did not compensate the earlier occupants. However, at that time most of expropriated lands were virgin, either bush or fallows. Therefore, the impacts on local activities were not that important as those of today. In few decades, Moundou became the second largest city in Chad after the capital city N'Djamena with the increase of pressure on land resources for settlement and agricultural activities. Lands that were simply given away began to have some monetary value.

With education and the increase in land value, more owners seek security on their property from the cadaster service. At the same time, public administration progressively implemented regulations to formalize settlements, and therefore put in place systematic land readjustments. However, the implementation process of municipal restructuring that continues in form of annexation and the readjustments of non-urbanized lands that follow raise concerns on tenure security and sustainable land development. Does the municipality follow the administrative and technical processes of municipal restructuring and land readjustment?

The theoretical concept developed in the case of this study presents municipal restructuring as a decision regarding boundary setting taken by the central administration and put in place by the municipality through readjustments of non-urbanized lands. The municipality then put in place

a board of specialists (a lawyer, a land evaluator, a land surveyor and two members of the local parliament) to decide on the conception and the implementation of the different readjustment processes. Cooperation with local population constitutes one key-element for the success of any productive land readjustment.

7.5.1. Process of Municipal Restructuring and Land Readjustment in Moundou

The process of municipal restructuring and land readjustment in Chad involve seven main categories of actors: The municipality, the local commission for urbanism (CLU), land owners, traditional authorities, judicial institutions, private institutions, the regional delegation of the Ministry of finance, and the delegation of the Ministry of Land Management composed of two departments that are: Department of Urbanism/Habitat/Land Development and the Department of Cadaster.

Department of Urbanism/Habitat/Land Development (UHLD) is currently responsible for the development of urban planning documents, the control of their application and their revision. The Department works on the development and control of public land reserves. Any decision on municipal restructuring and/or boundary extension needs technical expertise from this Department.

Department of cadaster establishes and maintains the cadastral plan. It coordinates, verified and centralizes all surveys decided by the municipality. The Department of Cadaster works on the identification and the census of properties for the definition of property taxes, as well as the implementation of new settlements.

The **Local Commission for Urbanism (CLU)** is a deconcentrated service of the Ministry of Land Management (MATUH) under the Law N° 006/PR/ 2010. Found in every main region town, the commission revises then approves/rejects plans related to urbanism. When needed, the CLU sends to the Ministry of Land Management, the revision of these plans in conformity with the development of the municipality or any other circumstances making the revision necessary; The commission also considers and adopts drafts of legislation and/or regulations related to all urban planning matters regarding the municipality. Any project of subdivision, restructuring and/or extension of the municipality needs approbation of the CLU, as well any evictions from informal settlements.

Delegation of Economy and Finance Ministry manages all of the state property, and is responsible for the execution of the tax policy. Its jurisdiction covers all urban land transactions. The service collects the different taxes and fees related to sales and leases of urban lands, that it reverses to the Department of Cadaster.

Judicial Institutions are composed of the Court of First Instance and the Court of Appeal. These institutions are involved in the management of both formal and customary tenure systems when it comes to the settlement of land related disputes. They are also involved in the approval of urban planning documents.

Private Economic Institutions are composed of economic operators acting in the land sector. In Moundou the two major components are real estate brokerage agencies and firms of notary responsible to authenticate acts of land transactions. These institutions play an important role of facilitating land acquisitions procedures and/or consolidating ownership.

Traditional Authorities used to have power on all land transactions in their given entity. However, they continually lose their authority as their lands mingle with the municipality limits, which arbitrary evolve under the pressure of urbanization. These traditional authorities are composed of villages and canton chiefs of neighboring communities.

Land Owners are part of population that own land either in urban or rural areas, or both. However, because of the pressure on land resources and the lack of adequate services ensuring their ownership rights, they constantly face forced evictions from municipal restructuring and/or overlapping land claims. Those from rural settlements have very lesser means of enforcement of their rights.

Under the different laws and decrees on land management, these groups of actors are sought to act in synergy during the different steps of municipal restructuring and land readjustment. According to the Law N° 006/PR/2010 laying down the fundamental principles on urban planning, Any development of urban spaces in Chad should be the expression on the field of the Master Plan on Urban and Regional Planning (SDAU¹⁰). However, the country has not yet worked on a global master plan. Meantime, the same law offers a second option for urban municipalities to evolve on the basis of Referential Urban Plans (PUR¹¹), which are very summarized documents on Urban Planning. In fact, the development of PUR does not require in-depth studies.

The Referential Urban Plan is a quick exploration of the existing situation and identification of major issues, which in turn lay down the basis for the definition of solutions¹² through seven instruments that are:

- Allotment
- Land Fragmentation
- Joint Development of Urban Extension
- Urban Regeneration
- Urban Restructuring
- Urban Restoration
- Urban Renewal

From the list of these seven instruments that could somehow overlay one on another, the implementation of PUR in most cities of the country works with only two: Allotment and

¹⁰ In French : Schéma Directeur d'Aménagement et d'Urbanisme (SDAU)

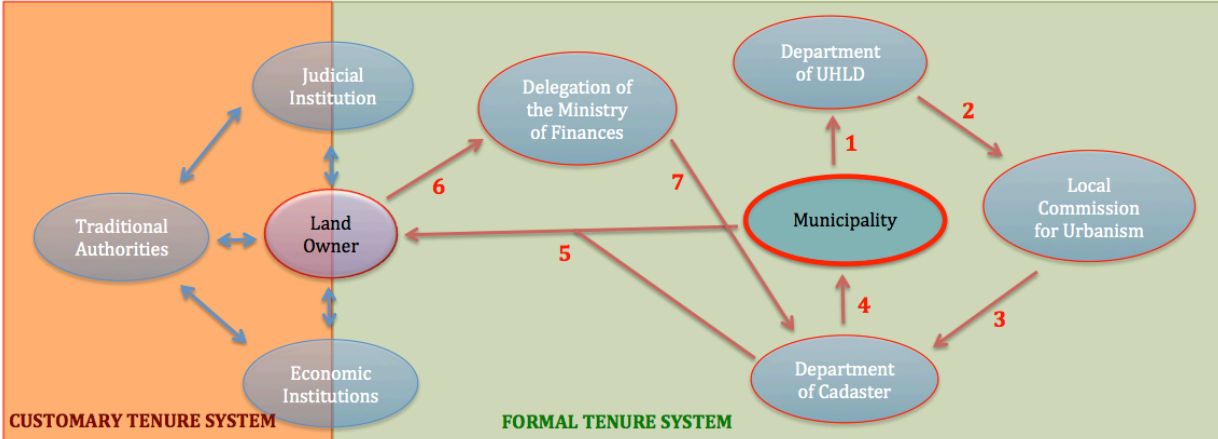
¹¹ In French : Plan Urbain de Référence (PUR)

¹² Article 4 of the Law N° 006/PR/2010

Urban Restructuring. Allotment is a subdivision of virgin land of a single taking into plots with appropriate infrastructures to accommodate housing by the prospective occupants (Article 20 of Law N° 006/PR/ 2010). It constitutes the essential mode of occupation of urban land. Urban restructuring on the other hand gives to an urbanized space but of irregular structure, a new allotted structure without contribution of infrastructures (Article 24 of Law N° 006/PR/ 2010).

Allotment and urban restructuring are the two major components of land readjustment that follows the decision on municipal restructuring. In fact, the annexation of neighboring rural entities calls for correction of the rural configuration and/or informal settlements into urbanized plots. This decision of change in boundary can only be decided under the elaboration of the PUR that has to be initiated by the municipality, but under the supervision and with the technical expertise of the Department of Urbanism, Habitat and Land Development (**First Step**). The **Second Step** is to send the decision to the Local Commission for Urbanism with references on coordinates and villages to be enclosed.

Figure 7.7: The Different Steps of Allotment and Urban Restructuring in Chad



Source: Author’s illustration based on field investigation

The CLU makes field investigation to ensure that the reason behind the decision of restructuring and/or boundary change does not compromise the peaceful cohabitation with the impacted populations. Once the CLU approves the decision, it transfers the files to the Department of Cadaster that works on the project of land readjustment (**Third Step**). Together with the Municipality, the Department of Cadaster defines the priority areas for allotment and/or urban restructuring (**Fourth Step**). The Department of Cadaster does the implementation of allotments and/or urban restructuring under the supervision of the Municipality and in presence of local land users and traditional authorities (**Fifth Step**).

The Department of Cadaster delivers temporary documents to land owners with customary rights. These rights are recognized either in form of occupied lands with fields, fruit trees and/or infrastructures (houses, wells, etc.), or in form of transaction documents delivered by traditional authorities. The recognized land users with plots are sent to the Delegation of Finances for the payment of allotment fees (**Sixth Step**), before getting their cadastral plans

with the Department of Cadaster (**Seventh Step**). This step is not the last but just the beginning of the long process to land title, because in Chad as in many other French-speaking countries, a cadastral plan is not an ultimate proof of ownership.

7.5.2. The Realities of Municipal Restructuring in Moundou

In the early independence between 1962 and 1965, Moundou has benefited from the first master plans for urban and regional planning developed by the architect Legrand as the framework for the development of the four major cities of that period (Fort-Lamy¹³, Bongor, Fort-Archambault and Moundou). These master plans however, have not been formally adopted although it helped lay out the foundation of these major cities. At the end, Moundou does not have today a master plan or a PUR that could serve as blueprint in all projects on boundary extensions.

In 2012, the program PADUR¹⁴ (Program for Support to Urban and Regional Development) backed by the World Bank elaborated an attempt of Referential Urban Plan for the municipality of Moundou. The PUR has not been formally adopted and the lack of funding hindered its implementation. In addition, the projections made did not take into account some of the major issues, as it did not commit to discussions with local authorities and population. Most of the projects did not meet the expectation, at the example of the new bridge built right next to the old one.

Picture 7.4: The View of the Two Bridges on the Logone River



Source: Author (2015)

The population of Moundou could hardly understand the reason of having two bridges next to each other while the city is locked between the Logone River and the two lakes Taba and Wey. It would have been more beneficial to decongest the city with a new bridge in another location. Without a master plan, the question on how the municipality expands its boundary poses the problem of sustainability, as Moundou continues to encroach on neighboring rural entities. Like most cities in Chad and across Africa, the urbanization process of Moundou has mainly been influenced by economy.

¹³ Fort-Lamy is the former name of the capital city namely N'Djamena

¹⁴ In French : Programme d'Appui au Développement Urbain et Régional (PADUR)

From its strategic position on the border of the main Chadian watercourse and its location in the most favorable climate zone of the country, Moundou has been economically prioritized. The cotton industry in the early independence and today's oil exploitation in number of surrounding localities, have drained population from different horizons, increasing the pressure on land resources. The late 1990s and early 2000s have completely reshaped the configuration of Moundou as the urbanization encroached on a greater number of surrounding rural communities. In less than ten years, at least ten big surrounding communities have been merged to the municipality.

Among these communities are: Ngara, Tayé, Koutou, Kamgorio, Belaba, Bonnon, Doheuri that were once administrative entities since the colonial era. The most remarkable was the annexation of Koutou, a Canton entity with a community forest. Koutou is now part of Moundou and the forest is slowly being changed into settlements. In its origin, Moundou covered only three quartiers (Bebakor, Guelmi and Nondal) over an area of about 300ha. Slowly, Decisions, Decrees and Orders, Moundou extended its boundary to reach today an area of more than 2,200ha.

- The Decree N°029/AG.AP of november 20th 1954 annexed the village of Ngara to the urban center of Moundou.
- The Order N°770/INI/ADG of November 20th 1958, sets the limits of the municipality.
- The Ordinance N°04/INT/SGCM of January 29th 1962, suppressing the Prefecture of Logone and creating the Prefectures of Western Logone, Eastern Logone and Tandjilé, drew new boundaries for the city.
- The Decree N°238/PR/PM/MAT/SG/DEL/07 of January 7th 2007 pushed the boundary of Moundou beyond the Logone River.

In 2010, the Ministry of Decentralization revised the perimeter of the municipality after a conflict on the border between the Western and Eastern Logone regions. In fact, the Ordinance of 1962 set the Logone River as the limit between the two regions. However, accessing administrative services in Moundou is less demanding for the communities of Eastern Logone located just across the river, than paying the price of traveling 37km to their nearest municipality. For that reason, the Decree of 2007 pushed the boundary between the two regions beyond the River Logone. Tayé and Ngara that were theoretically within the boundary of the region of Eastern Logone were then annexed by the municipality of Moundou located in the region of Western Logone.

The incoherence of the 2007 Decree and the boundary set in the Ordinance of 1962 motivates the Ministry of Decentralization to make a new Decree¹⁵, and agreed by the governors of the two regions to set the boundary to be the Logone River. However, the new mayor of Moundou

¹⁵ Decree N°3361/PR/PM/MAT/SG/ on the boundary setting of the Municipality of Moundou, of December 14th 2010

continues to claim the annexation of the communities of Ngara and Tayé, based on historical facts indicating that the population of Moundou originates from the communities on the other side of the river. Because these communities are tied historically to the population of Moundou, the boundary limit should not be the Logone River. But, how far should that limit be, is not clearly expressed by the Mayor.

7.5.3. The Realities of Land Readjustment in Moundou

As stated previously, land readjustment in Chad covers essentially two procedures that are land allotment and urban restructuring. Their implementation in the municipality of Moundou as found during the field investigation revealed that local authorities have a lot more preference towards land allotment rather urban restructuring. In fact land allotment occurred on uninhabited lands, while urban restructuring calls for destruction of all or part of existing buildings on public lands. Consequently, the costs involved in the second tend to postpone most restructuring projects on one end, and on the other the interest generated by the selling of new allotted lands rushes land allotment procedure.

a. Land Allotment

The history of land allotment is well structured in the policy of the United States federal government to allot American Indian lands in the General Allotment Act of 1887 (Dawes Act). The Allotment Act advocates that the Indian way of life and collective use of land needed to be reversed into individual ownership of private property, in order to promote investments. Furthermore, the Dawes Act opened Indian lands for settlement of other communities as well as for railroads, mining, forestry and other industries. As it appears today across the United States, allotment has caused Indians to be removed from their tribal lands.

Picture 7.5: View of allotted plots on an agricultural land



Source: Author, 2014

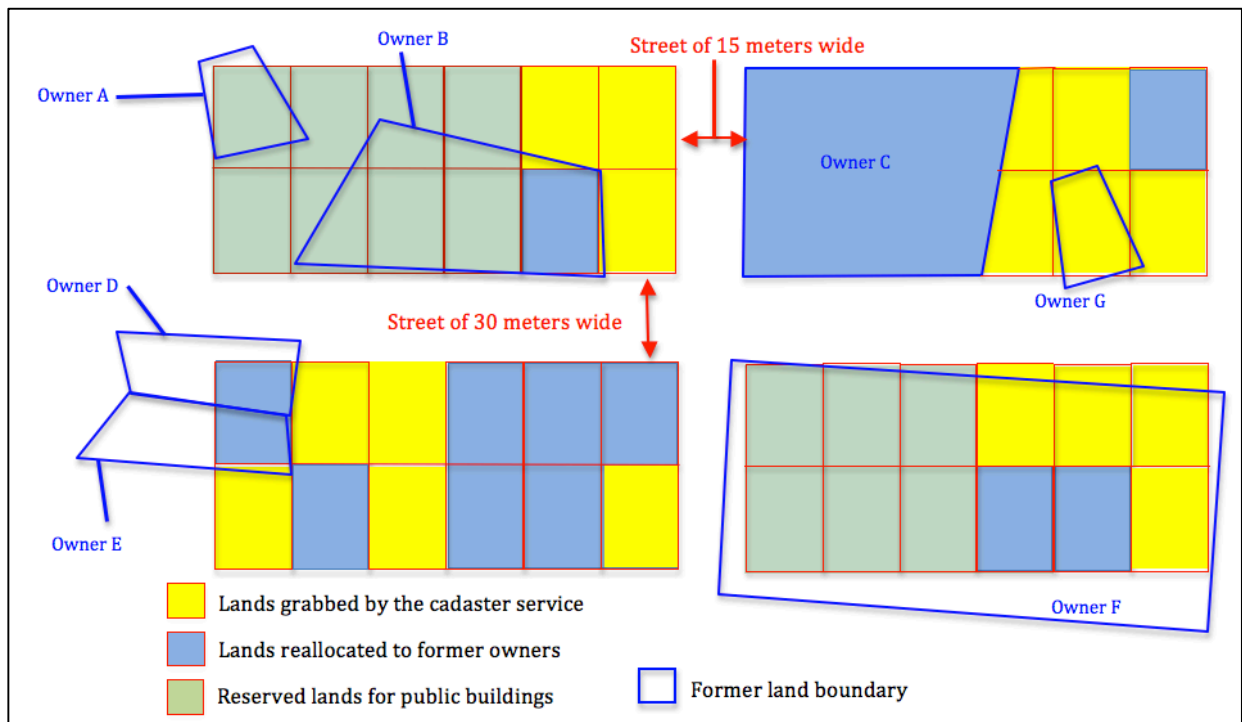
In the context of this current study, land allotments mainly occur on agricultural lands, where most often no housing is found. The Department of Cadaster with the municipality of Moundou develops the mass plan of the area to be allotted. The plan defines the number of plots and their uniform sizes with the different access roads. Plots are grouped in block of 6, 8 or 10. The common used dimensions are 450m² (30m x 15m), even though the dimension of 1000m²

(40m x 25m) is rarely used for residential areas. Following the development of plans, the Cadaster technicians do the survey for the implementation of the plan through land marking.

Landmarks are made of concrete and planted at each corner of the plots. They exist in two sizes and placed according to the dimension of access roads. The bigger landmarks indicate wider access roads. The cadaster technicians proceed to the implementation regardless of existing activities, but they consider the different ownership claims on the allotted lands. The redistribution of allotted lands to those who hold customary rights is made very difficult, leading to abusive expropriation. Out of the two criteria that are “relative size” and “relative value”, the cadaster service seems to operate based on the relative size criteria.

However, without neither previous study nor specific objectives, the technicians operate on the base of random criteria that varies mainly according to the social class and/or awareness of ownership rights. In a land allotment project well designed and implemented with due respect to the basic principles of the Chadian land tenure system, “*the ownership right remains untouchably and unchangeably; merely the object (parcel), that the ownership is regarded to, shall be changed concerning location, form and/or magnitude*” (Thomas, 2009:4). However, the field investigation reveals that ownership rights are simply suppressed in most cases.

Figure 7.8: Different Schemes of Land Redistribution during Land Allotment

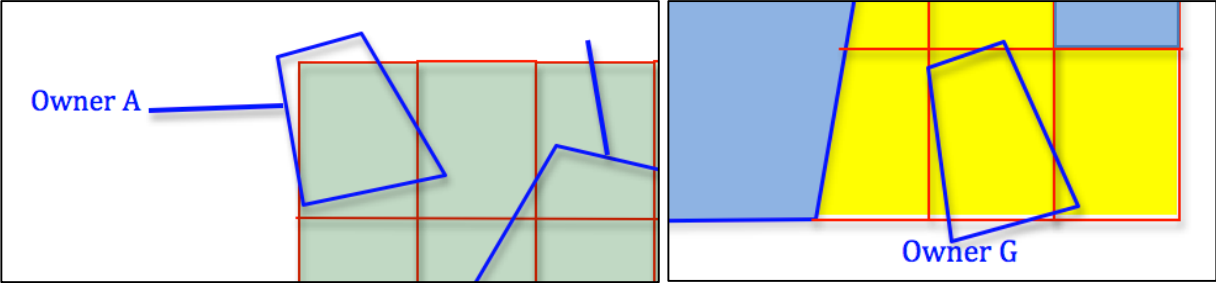


Source: Author’s illustration based on field investigation

The Figure 7.6 shows a situation of land allotment where former owners face different schemes of expropriation and/or reallocation of their lands. The exact proportion of expropriated and reallocated lands cannot be estimated due the difficulty to access data from the cadaster department. The figure only aims to showcase the different schemes that occur after the

implementation of land allotment. Four schemes of land expropriation and/or reallocation are possible, and they depend on the ability of the former owner to prove his ownership and/or to enforce his rights.

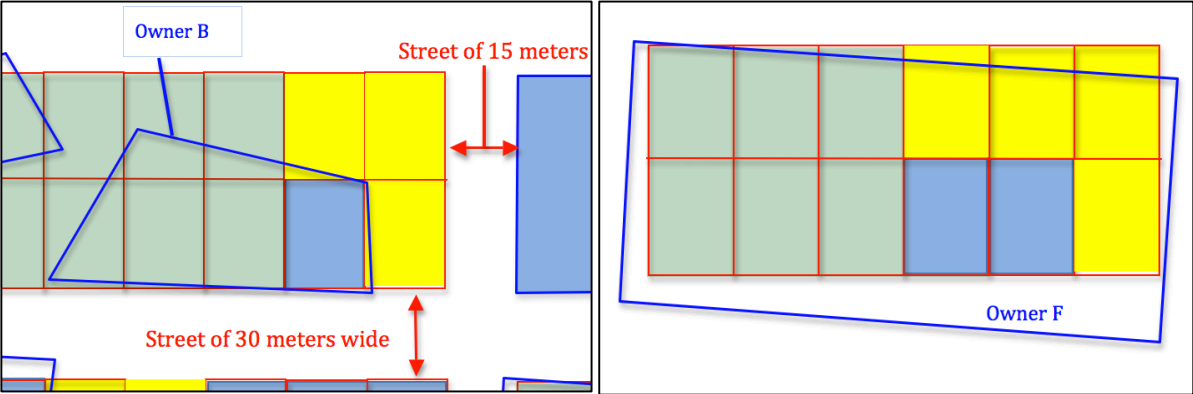
Figure 7.9: First Scheme - Total Expropriation for Owner A and Owner G



In this scheme, owner A and owner G have customary rights on lands they acquire before the readjustment. They might have bought their lands with a local inhabitant or have inherited them. Either way, they are evicted from their lands after the implementation of the allotment. For Owner A, a small part of the land is found to be on the streets while the biggest part is supposed to be a reserved land for public buildings. Owner G is simply expropriated from his land by the cadaster technicians. Either Owner G did not have the possibility to pay the implementation fees, or that he delayed to show up with ownership proof.

In the two cases, none of the owners receive compensation. The land expropriated from Owner G is simply sold by the cadaster technicians and the gain shared. When there is an imminent project, the land expropriated from Owner A is indeed given for public buildings. However, most often when the implementation of the project for which the land is reserved delays, the cadaster technicians sell the land to another requester. In 2014, for example the Ministry of Justice faced the situation where the land allocated for its new building has been sold to an expatriate businessman. In fact, the government allocated the land two years ago, but because it has not been exploited, some of the high ranked cadaster officials sold it.

Figure 7.10: Second Scheme - Partial Expropriation for Owner B and owner F

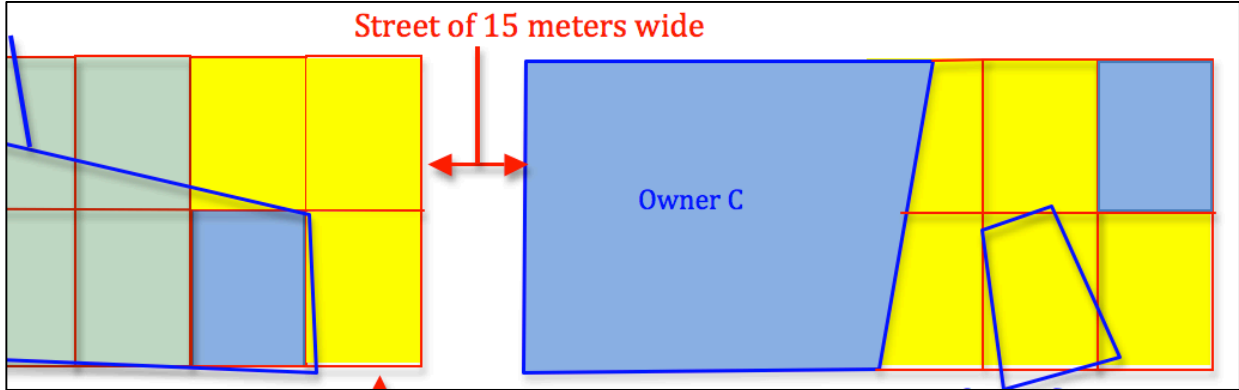


Owner B and Owner F receives plots after the subdivision, but not entirely in term of size left after the encroachment of streets. After the implementation, Owner B is left with at least three

plots and Owner F with not less than eleven plots. Owner B could have been expropriated for reason of public interest. It could also be that he did not have the possibility to afford the payment of the implementation fees, and supposedly the value of the two plots compensated the charges. Out the three plots, two are taken by the cadaster service to cover the implementation fees. However, these two expropriated plots may end up sold to new requesters.

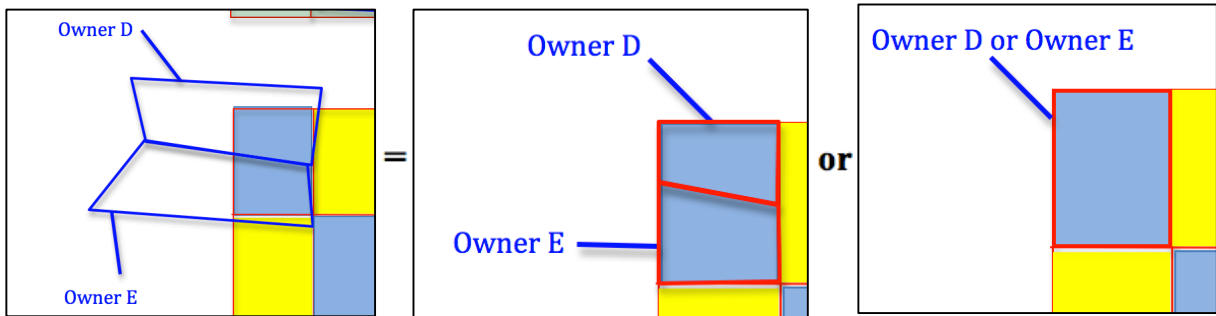
Owner F ended up with at least eleven plots, and because he doesn't have enough financial resources to cover the implementation fees of all the eleven, he ends up with only two. Sometimes, the cadaster technicians argue that nobody is allowed to have a certain number of plots together in an urban entity. Interestingly, this number always varies and the legal text on it does not appear anywhere. If Owner F were an influential personality he would have more chance to receive all the plots. Not only because he would have the possibility to pay all the charges, but also because he would know how to enforce his rights in this case.

Figure 7.11: Third Scheme - Total Land Reallocation for Owner C



Owner C is aware of the value of lands in the peripheral areas, so he not only buy a big portion but make sure he has the full statutory rights on it. Most often, people acquire lands in the neighboring villages under customary rights and have the cadaster service delimitate them and start the process of land titling. In this example, Owner C finished the process and has formal documents of his ownership. Therefore, the allotment that follows the restructuring of the area considers the limits of his plot. In some cases, his plot would dictate the allotment plan as being the reference.

Figure 7.12: Fourth Scheme - Plot Sharing for Owner D and Owner E



In this scheme, Owner D and Owner E end up with portions of their lands in the same plot. Because the plot is at the corner of the block, both of them have access to a street. It may happen that one of the two owners sell his portion to the other. Or that one of the two owners is an influential personality that simply corrupts the cadaster service to possess the entire plot without compensation to the other. Other possible scenarios are that one of the two owners did not show up on time to claim his rights on his portion, or that he simply did not have the resources to pay the implementation fees.

b. Urban Restructuring

Urban restructuring in Chad, guided by the *Law N°006/PR/2010*, involves demolition of structures, relocation of people and businesses, for the development of public infrastructures. The process itself is an important tool to land administration for the reoccupation of public lands informally settled, and also for the improvement of infrastructures such as roads and sewage systems. The essence of urban restructuring as stated in the texts, involves establishing a spatial structural logic or order by creating spaces or breaking down fragmented urban pattern. Thus, improving the quality of the spatial environment through the development of public spaces where they are required.

Urban restructuring as operating in Chad slightly differs from urban renewal and urban upgrading, but somehow encloses some elements of the two. Both urban renewal and urban upgrading calls for the improvement of living conditions in the slums. In fact, slums are unplanned and under-served neighborhoods typically settled by squatters without legal recognition or rights (World Bank, 1999:1). Urban renewal on one end as recalled by Daunton (2000) is motivated by the clearance of slums in order to provide new flats meant to offer more community friendly atmosphere at very affordable rental price. On the other end, urban upgrading is not only about housing improvements and access to social and municipal services, but also about regularizing security of land tenure (World Bank, 2004:2).

Figure 7.13: Configurations of Formal Settlements and Informal Settlements in Moundou



Source: Google Maps (2015)

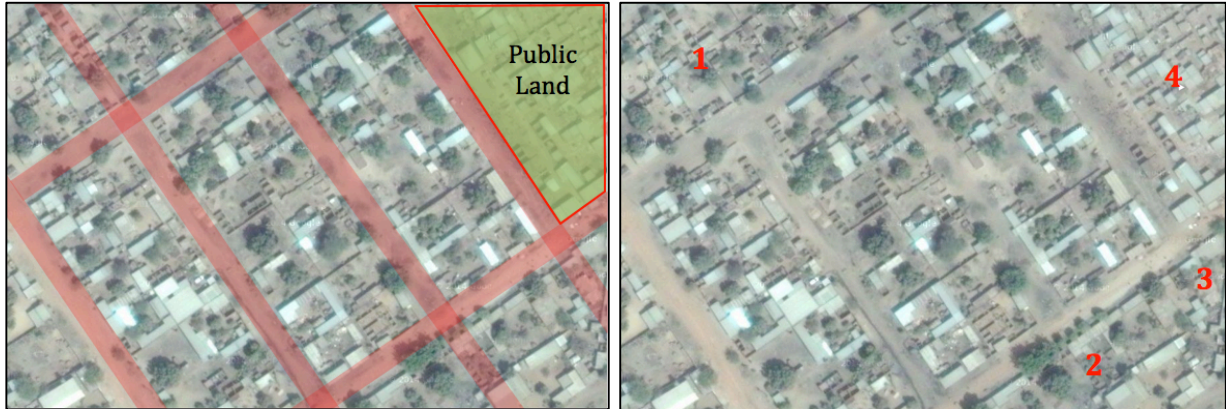
Due to the dualism of the tenure system in Chad, most occupations are done under the customary tenure system. The dwellers of these places are not illegal occupants as long as they

do not settle on public reserved lands, which they are not always aware of. When the occupied plots progressively enter into the urban boundary, restructuring comes to correct the spatial configuration of settlements and also to initiate the process of land titling for the dwellers. However, most often, urban restructurings lead to forced eviction by withdrawing part or the entire occupied land. The process follows the Hyppodamian plan, in which, streets run at right angles to each other, forming a grid.

The current urban structure of Moundou allows distinguishing two types of neighborhoods: the formal settlements and the informal settlements. The difference between the two settlements is rather based on the spatial configuration and more importantly on the fact that land occupation in formal settlements followed well-established cadastral plans, than the ownership rights. In fact, informal settlers are not necessary illegal squatters as they usually hold customary ownership rights.

However, residents of informal settlements live in a permanent state of legal-social insecurity. Although they may have ownership rights under customary system, their settlements are not recognized by formal authorization use of land. They are therefore characterized by the absence of formal planning and unplanned growth. These informal settlements are found in a variety of locations, usually on land not suitable for development like in the nearest of the two lakes and the Logone River.

Figure 7.14: Scheme of Urban Restructuring in Formal Settlements



Source: Google Maps as illustrated by Author (2015)

Urban restructuring involves costs that are entirely supported by the municipality, which makes it difficult to implement. In fact, allotments that normally precede urban settlements are not systematically implemented. One of the major reasons most housing are improvised and lacks basic infrastructures. Upgrading the existing infrastructures require an important budget that the occupants hardly understand the necessity of their contribution in the process. Therefore, the municipality only spots areas that hold immediate interests. The implementation follows the master plan of the city. However, most cadastral plans are not fully integrated to a master plan, which makes most of the restructuring very subjective.

In formal settlements, the main network of roads exists physically but it happens that some are obstructed like in *Spots 1, 2 and 3* in the Figure 7.12. High ranked officials that have the possibility to alter cadastral plans, sometimes do these obstructions. Taking the example of *Spot 1*, they would argue that the road ends in form of T and does not go beyond the intersection. It may also happen that in a previous restructuring, the areas were marked but never demolished, so over the years it gets resettled. *Spot 4* is a public reserved land that was spontaneously occupied.

Picture 7.6: Occupation of a Public Reserved Land by a Local Businessman



Source: Author (2015)

Public reserved lands are not only occupied by poor dwellers. For example, Picture 7.6 shows a pump station located on a portion of land reserved for a holding pond project. This notorious businessman convinced the municipality to sell this strategic plot at the corner of one of the most frequented streets. Interestingly, those who likewise occupied the land were forcibly evicted years before. Soon or later, this occupant will be asked to vacate the land. He may have connections with the current authorities, but this doesn't guarantee his ownership on a long run. Many among the high social class make use of their influence to occupied public reserved lands, but most have failed to keep their lands as heads of public administration are continually replaced.

Picture 7.7: Restructuring of an Obstructed Crossing Point



Source: Author (2014)

When restructuring affects a public reserved land, the whole area is torn down, regardless of the type and/or value of the buildings. When it touches settlements that obstruct roads or that encroach on public reserved lands, marks are put on the structures showing the limits to be extruded (cf. Picture 7.7). This gives time to dwellers to remove from their structures what could be used later, such as bricks or wood. The owners of buildings are given the best option to proceed to the demolishing themselves, because the process usually involves big engines that can affect the solidity of structures or that can demolish beyond the extrusion limits.

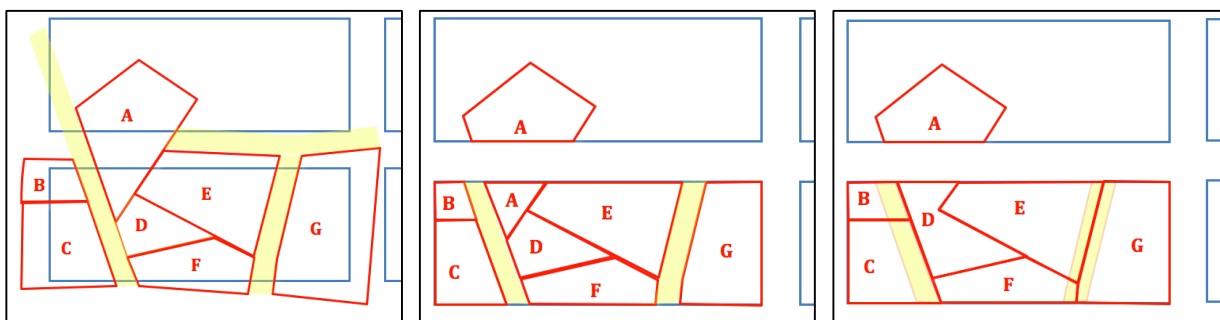
Figure 7.15: Scheme of Urban Restructuring in Informal Settlements



Source: Google Maps as illustrated by Author (2015)

Most dwellers of informal settlements do not possess any formal documents on their ownership. They also lack access to basic municipal engineering services such as water, sanitation, roads and electricity. Peripheral areas and/or neighboring villages to be enclosed in the municipality compose in great majority the configuration of informal settlements in Moundou. Houses are often limited by trails in irregular forms. Access to these areas is made difficult, especially during rainy seasons. Upgrading roads is very crucial for traffic to the residential and administrative areas.

Figure 7.16: From Informal Settlements to Restructured Compound

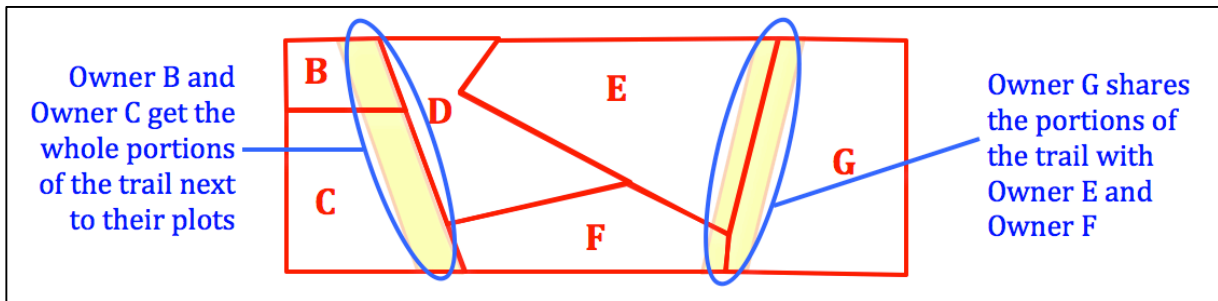


The different spots in **Figure 7.15** numbered 1 to 11, show where houses are to be demolished as part of a restructuring project. The focus is given to the materialization of roads as they appear on the cadastral plan. Not only the materialization of roads destroys part or all of some houses, it also creates new context of relationship among the dwellers. In fact, what used to be access roads may no longer exist as such, and new ones are created out of the cadastral plan.

Some landowners might be left without access to a street, other with an extra portion of land from the trail that is no longer part of the road (**Figure 7.16**).

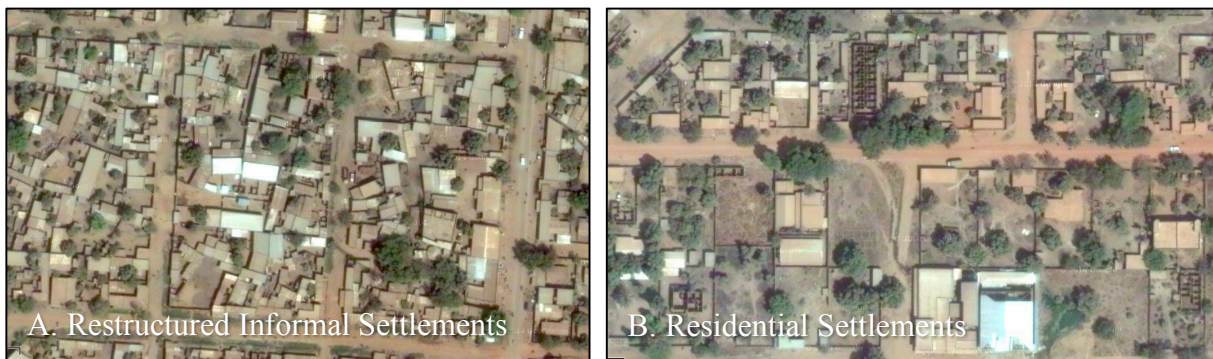
With land allotment, the forms of plots are easier corrected because of the absence of structures. Urban restructuring on the other side focuses more on opening roads and creating blocks of housing as pictured in the **Figure 7.16**. Therefore, the irregular patterns of plots inside blocks are kept as such, because the consolidation of these fragmented lands would require demolishing almost the entire block. However, when some dwellers are left without access to a road, they would negotiate with their neighbor to get a corridor of access or even buy a portion of land next to them. In this example (**Figure 7.16**), Owner A has his land split on each side of the road. Owner D, left without access gets Owner D to sell him one of his portions that would allow a direct access to the road.

Figure 7.17: Covetousness over portions of trails left after restructuring



Trails that are left inside blocks raise covetousness from adjacent dwellers. Sometimes, former owners who sold these adjacent lands would come back to occupy the portion of trail or sell it, because they would assume that it was part of their land. In this example for instance (**Figure 7.17**), Owner G shares half of the trail with Owner E and Owner F, while Owner B and Owner C take the whole portions of trail next to their respective plots. It also happens that cadaster technicians grab these portions of trails and sell them to the adjacent dwellers or even expropriate in the surrounding to make one or more plots in the restructured block.

Figure 7.18: Patterns of Plots in Different Types of Settlements

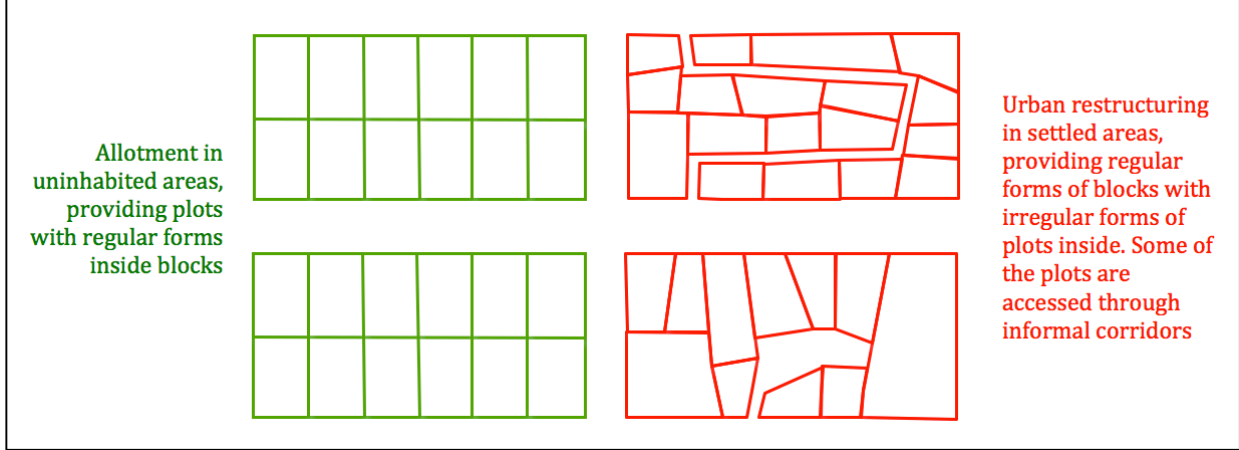


Source: Google Maps as illustrated by Author (2015)

Although urban restructuring comes in correction of spatial configuration of informal settlements, they almost never affect the forms of plots inside blocks as shown in **Figure 7.18**.

Irregular forms of plots inside regular forms of blocks are very common to restructured settlements while in residential settlements the forms of plots are regular and of same size. Land allotments always precede any forms of occupation in residential settlements, which explains the regular forms of plots. In sum, urban restructuring affects the form of blocks in settled areas, and lands allotment designs the form of both blocks and plots.

Figure 7.19: Patterns of Plots in Allotment and Restructured Informal Settlements



The realities of land readjustment in forms of land allotment and urban restructuring picture a real dichotomy with the texts, but the municipality authorities and those of the cadaster department create an environment of tenure insecurity for low-income households. The surrounding rural communities do not know exactly how to handle the situation as their traditional authorities lose all their power when the municipality encroaches on their entity. This way of doing things has enormous impacts not only on rural means of life but also on the provision of food and other means of life for the municipality.

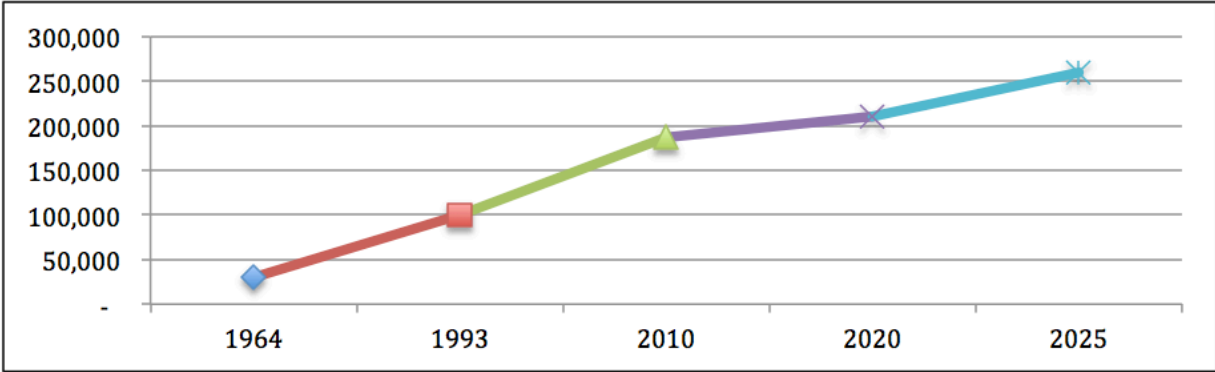
7.6. Impacts of Land Readjustments on Local Land Uses in Moundou

On the demographic level, Moundou is changing faster over the last decades. As the statistics show, its total population was multiplied by more than six time in the last fifty years. The estimated growth rate is 4.3% per year, so the population is expected to exceed 300 000 inhabitants in 2025. From an area of about 300ha in the early 1960s with about 30 000 inhabitants, Moundou covers today an area around 3000 ha with nearly 190 000 inhabitants from the census of 2009. The urbanization of Moundou before the independence was slow. However, it increases in the eve of independence to pic in the early 2000s.

Rural exodus dating from the colonial period and intensifying in the last decades, has mainly socio-economic reasons, such as the search for employment by the valid populations fleeing their campaign to install in town where they seem to find different services and industries. On the other hand, civil wars in the late 1970s and early 1980s, with the political instability of the 1990s also increased the concentration of the population in Moundou considered as place of

refuge for those fleeing the murdering of southern elites in the capital city and abductions of young men in the neighboring villages.

Figure 7.20. Population Growth in the Municipality of Moundou



Source: Archives of the Municipality of Moundou

As for many other cities across the country and even across the continent, this urbanization is not without consequences on the environment and the means of subsistence mainly based on agriculture. First, the destruction of natural habitats with increasing pressure on the preservation of natural resources. Second, the lack of adequate waste management facilities generates important pollution. For instance, the non-segregation of wastes drains potentially hazardous wastes of industries and hospital into the Logone River, the main source of water supply. Finally, the inappropriate sewage system is a recurrent source of flooding.

On the socio-economic level, urbanization in Moundou caused a lot of inequalities among the population. These inequalities are not only noticed in terms of infrastructures but also in terms of tenure security and access to land. Land speculation drains the less fortunate among the population to the peripheral areas where basic infrastructures lack and under customary rights. Meantime, those among the high social class have the possibility to acquire lands in the new restructured areas with more security on their ownership. This land speculation is also source of abusive expropriations from poorer landowners.

a. Land Access Inequity

Compared to Asia and Europe, Africa still holds the image of land-rich and sparsely populated continent where large rural populations exist depending, to varying degrees, on the land (Peters 2004:269). However, the image of plentiful land for all who need it no longer holds for most of countries in the Sub-Saharan Africa. Even though on average, land is still abundant, the number of Africans with limited access and those without land keeps increasing (Raikes 2000:66).

Peters (2004:305) in her analysis on land access inequity, considers that the proliferating tensions and struggles between generations and genders, or between groups labeled by region, ethnicity or religion, are intimately tied up with the dynamics of division and exclusion, alliance and inclusion that constitute class formation. Chad is not an exception, and has its land

inequity essentially characterized to two main factors that are access to land and the ability to keep and defend ownership rights.

In 2012, a Non Governmental Organization named “ Association Ngaoubourandi” (ASNGA) conducted a survey on local land uses and the impacts of urbanization on rural communities in the surrounding of Moundou (All-Yom and Madji, 2012). From a sample of 350 respondents, the study let appear the context of access to land based on gender, social class and marital status. Only 16.25 per cent of women claimed land ownership compared to remaining 83.75 that are men. Although this number is very low, it pictures a change in the perception that women are not entitled to land ownership.

The weight of cultural consideration is progressively lighten to give women the opportunity to access and inherit land, but the obstacles remain especially when it comes to enforcement of ownership rights in case of conflicts. The analysis demonstrates that women holding ownership rights are either married or widows, showcasing here the importance of men support in land acquisition process. However, the marital status does not apply only to women when it comes to know which group holds an important part of ownership between single and married individuals.

The poll conducted by ASNGA reflects that among the 83.75 per cent of male landowners, the overwhelming 89 per cent are heads of households against 11% that are single men. This low proportion of single landowners in comparison to married landowners tends to corroborate the general thought among the Ngambai people that considers a single man as a least responsible person who cannot establish and maintain a household because he is individualist and lives on a daily basis incapable of projecting into future.

Therefore, for a married man to distinguish himself from a single man, a “Gaouba”, he should hold a piece of land as long as he has the possibility to do so. Since the price of parcels inside the municipality is not affordable to everyone, low-income households usually seek ownership outside the municipality under customary rights. The other main challenge of owning parcels outside the municipality and under customary rights resides in the ability to resist expropriation during land readjustments or by voluntary sale.

During the field investigation, it came out that voluntary sale is the advantageous alternative prior to land readjustment. Instead of being expropriated without adequate compensation, landowners sell their parcels to new dwellers from the inner city. They became later simple workers on the lands they once owned.

b. Insecurity of Tenure for Vulnerable Land Holders

The dualistic system of tenure in Chad most often opposes customary ownership and formal ownership, when it comes to tenure security. The two systems usually reflect the mode of land use and the type of settlement: customary rights in rural settlements where agricultural activities predominate, and formal rights in urban settlement with predominant housing, commercial

and/or industrial activities. In the fringe of the two systems, the intersecting interests create more insecurity for vulnerable land holders that are found to be rural land users.

In one of the surveyed village named Kamgorio recently added to the municipality, one owner of orchard had his land with eight adult mango trees enclosed in the readjustment area. Out of his land, the allotment gave up a total of four plots with two reassigned back to him. In order to enter in full possession of the two plots, he had to pay the allotment fees before starting with the titling process. Unfortunately he ended up without a single plot, as the cadaster service at some point refuse to deliver the referent documents.

The process did not take into consideration the Laws 24 and 25 of July 22nd 1967 respectively on the regime of land ownership and customary rights and on the limitation of land rights, which call for compensation to owners in case of expropriation. In this case of expropriation, the value of only one mango tree could have paid off the land marking fees. The other landowners in this village live in fear to see the cadaster service proceeding without warning and agreement on the parceling of their remaining fields.

Cadaster officials usually argue with these uninformed landowners that they should justify their ownership with formal documents, or that they cannot possess more than a certain number of plots in an urban area. Women are in these cases even more vulnerable, as they should also go through bureaucratic procedures, but are less prone to gain satisfaction compare to men due to the social burden. Most of these snatched lands, if not all, ended up sold or reappropriated by the cadastre technicians, and rarely reserved as public lands.

c. Unsustainable Land Use Planning

In this case, the absence of any land use plan or strategic planning framework to guide the potential changes showcases how land readjustments happen haphazardly. Rather, little consideration is given for control over land use conversions from agriculture to non-agricultural uses, in the sense that low-income households most often migrate in search of new settlements. This migration is also sometimes motivated by the search of gain in this sudden increase in land value.

In Belaba, one of the encroached rural communities in the surrounding of Moundou, local populations start selling plots prior to land readjustment process because they heard of a road of 60 meters wide that was planned to cross the area. Some of the local businessmen and administrative authorities, informed of the situation, have therefore sought to acquire all parcels on the edge of this road. This expected project generated a sudden interest in the area, and later enclosed the community into the municipality of Moundou. Land readjustment that comes in forms of allotment and restructuring does not always take into consideration the sustainable management of the resource.

This constant restructuring of the municipality of Moundou implying its growth causes the natural entities in the surrounding to decline by fragmenting or destroying large areas of natural

habitat. While the different components of those areas are taken away, the growth implies the increasing in demand for natural resources such as wood fuel and other products. Moundou is located in this small part of the country where the climate is favorable to the development of different forms of flora. Therefore, encroaching without control on the natural habitat result in compromising the entire system that sustains life not only in the municipality but also in the entire country.

Rural entities in the outskirts of the Moundou enclose several pockets of Wooded Savannah, which are over the years endangered by the constant growth of the municipality. This growth encroaches on rural communities that seek affordable lands further in their surrounding open spaces. One noticeable example is the forest of Koutou, now totally enclosed in the city. Created by the Order N°29 of January 15th 1955 by the Governor of French Colonies, the reserve of Koutou is a wooded entity that initially covered an area of 200ha.

The reserve of Koutou was located in the outskirts of Moundou until late 1980s, under the administration of the rural community of Koutou. The perimeter of Koutou is a strictly protected ecosystem where limited activities such as vegetables production were permitted in its marsh area near the Lake Wey. However, following the urban growth of the municipality in the early 1990 confirmed by the restructuring of 2007¹⁶, deforestation and human settlements encroached progressively as shown by the construction of a high school, a number of houses and gardening activities.

Without an adequate system of waste management, the reserve of Koutou became over the years a dump pit for the population of Moundou. Although the restructuring decree of 2007 did not change the status of the reserve as a strictly protected area, the fragmentation of this natural habitat is being done even with the approval from the cadaster service and the municipality. Land readjustments continue to encroach on agricultural lands and natural reserves, with little consideration in sustaining rural livelihood that compose of more than 80 per cent of the total population.

7.7. Discussion

Moundou remains one important city in Chad, noted by the increase in industrial activities during the last five years. Important oil reserves are found in the surrounding of the city with a pipeline that cross the Logone River to join the exportation shore in Cameroon. The flux of migrant workers from other part of the country put another pressure on land resources. With the constant extension of the municipality, land readjustment done in an unsustainable manner can only put a great toll on local land uses, especially those of rural communities.

It appears that most of the municipal restructurings that occurred in the last ten years does not have to do with decentralization process. In fact, only the Decree

¹⁶ The Decree N°238/PR/PM/MAT/SG/DEL/07 on the boundary definition of the Municipality of Moundou

N°238/PR/PM/MAT/SG/DEL/07 of January 7th 2007 corrected by the Decree N°3361/PR/PM/MAT/SG/10 of December 14th 2010 is part of the new restructurings of the municipality induced by the decentralization process. Rather, local authorities see in restructurings and land readjustments, good opportunities to generate income, but not always for the public administration.

The Article 27 stipulates that not more than 5% of the value or the size of a parcel can be expropriated without compensation, but above that percentage the local administration is required to provide another parcel according to the size/value and/or to pay a monetary value. It appears from the investigation that neither the cadaster technicians nor landowners are aware of these texts. For urban restructuring, the Law 23 of July 22nd 1967 stipulates in its Article 7 that all transfer of rural lands should be done on a consultative approach.

The Local Commission for Urbanism (CLU) instituted by the Law N° 006/PR/ 2010 on urban planning, has theoretically the same duty as that of land readjustment board. In fact, the commission whether approves or reject propositions of land readjustment plans. However, if the land readjustment board cited by Müller-Jökel (2004:5) involves an independent board of experts (lawyers, land evaluators) and two members of parliament, the CLU is rather composed of the same that propose the plans. Therefore, the objectivity in the decision is then compromised, because the same that elaborate land readjustment plans are called to approve or reject them.

In reality the Local Commission for Urbanism only exists in the texts, because the field investigation did not reveal any meeting of the board. Land readjustments are decisions of compromise between the municipality and the cadaster department. They proceed on land allotments and urban restructuring mostly without technical basis such as comprehensive master plans as required by the *Law N°006/PR/2010*, which lays down the principles of urbanization process for decentralized collectivities.

Good governance in Chadian public administration needs to be addressed properly in order to face the situation on land management in a sustainable manner. However, in a country ruled by the same leader for more than twenty-four years and high-level administrators from the same ethnic group, Chad has a very long way to go. The glimmer of solution can be seen through decentralization, as more and more mayors are taking initiative for the development of their municipality.

Chapter Eight: Confirmation of Hypotheses and Recommendations for Better Land Readjustment

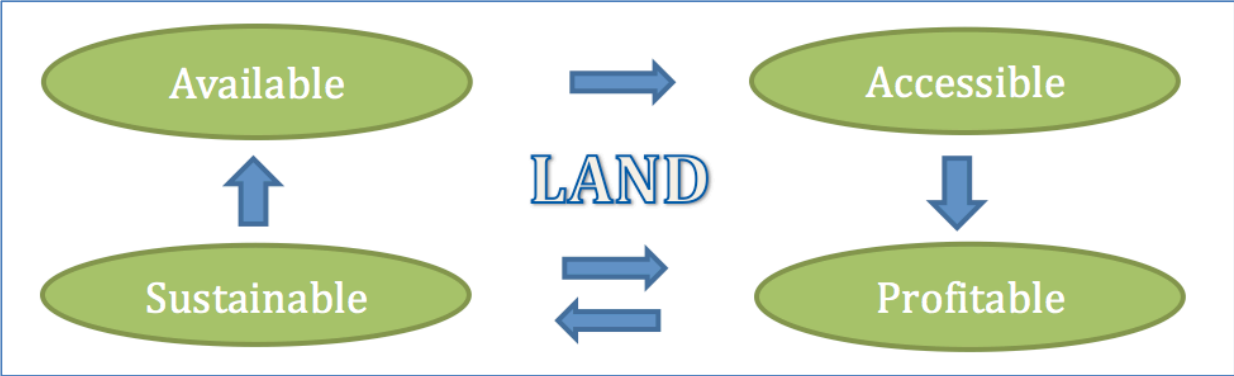
The challenges that the municipality of Moundou faces in terms of local land management include in majority those of other regions. Especially when it comes to land readjustments following municipal restructurings. Abusive expropriations during Annexation and incorporation have drastically changed the perception of tenure security in a sense that the dualism of the tenure system becomes questionable.

8.1. Emerging Issue: Tenure Security or Tenure Viability?

A secured land tenure offer a guaranty on a continuing use of the resource, but it does not necessarily ensure its productivity. In agriculture for example, a productive land provides a fertile soil that ensure good harvest. In urban development and housing, land can be considered productive if basic infrastructures are accessible. In sum, adequate land development puts land use in its optimum profitability, because it reduces the vulnerability of local population to hunger and poverty; influences the capacity to invest in their productive activities and in the sustainable management of their resources; enhances their prospects for better livelihoods; and helps them develop more equitable relations with the rest of their society, thus contributing to justice, peace and sustainable development (IFAD, 2008:4).

When the profitability of land resources meets today’s needs and those of the future, it ensures what could be discussed as “tenure viability”. This viability ensures the ability of the different relations over land resources to be sustained and to continue to operate at its optimum possible even under difficult circumstances. From the principle that if the different uses of land are planned and considered during development, the value of land is boosted and sustained on a much longer period. Considering the context of municipal restructuring in Chad where the systematic development of rural lands into urban endangered the sustainability of rural land uses, tenure viability would have four elements to be considered: its availability, accessibility, profitability and sustainability.

Figure 8.1: Tenure Viability



Source: Author

These four elements interrelate in the sense that if land is available, it can be made accessible to all, even to the poor. And when land is accessible and generates profits, ensuring its sustainability is less exhausting as users would understand the necessity. As long as the resource is used in a sustainable way, it keeps the profitability going on while preserving the capital (availability of land).

8.1.1. Availability: diversity in land uses

It results from the study that the scarcity of land limits number of activities, especially the agricultural ones. Land has always been in demand, and now even more due to demographic pressure. The issues that face most dwellers are tied to the systematic changes in land pattern. In the case of municipal restructuring where all lands are converted for housing, industrial and commercial purposes, the question of land availability for other uses such as agricultural activities raises concerns. It appears from the research that the situation calls for local authorities to assess and identify sites or broad locations, which are suitable for particular use.

8.1.2. Accessibility: same rights for all

Although lands might be available for particular use, its accessibility is not always evident for potential users. As for housing for example, it happens that people are evicted from a location to have it sold to new dwellers. Land accessibility poses the problem of equity, because the different schemes of land redistribution pictured in Chapter 7 show how access to land can be compromised by social and political consideration. Taking into account the fact that Chad has a density population of less than ten inhabitants per square kilometer, land is surely available but how accessible it is for the common Chadian remains a big challenge.

8.1.3. Profitability: beneficial land uses

Whether for housing, agricultural or other commercial activities, the value of land highly depends on the profitability it generates or could generate. With the development of public infrastructures, the profitability of land is boosted because this offers a suitable environment for different activities. A landlord with rental houses in a structured area with good roads, sewage system and other infrastructure, has likely better chances to find tenants ready to pay higher rent. However, the profitability does not only depend on the services to be provided by public institutions, land users have also their responsibilities in creating favorable conditions in that sense, by respecting for example their living environment.

8.1.4. Sustainability: anticipation on future needs

Planning on land uses in Chad is not a major concern for public authorities as none of them seeks to follow a well-established master plan for future development. The demolishing of expensive private buildings in the capital city shows the context of unsustainable management of land resources. This added to the encroachment of natural entities during municipal restructuring where local land uses are simply suppressed. The systematic assessment of existing potentials could have offered alternatives for land use by adopting the best land-use

options. In fact, sustainability helps in selecting and putting into practice those land uses that will best meet the needs of the people while safeguarding resources for the future.

All these considerations put together offer what is discussed here as tenure viability. However, the rights to benefit from this context of tenure viability need to be preserved in form of tenure security.

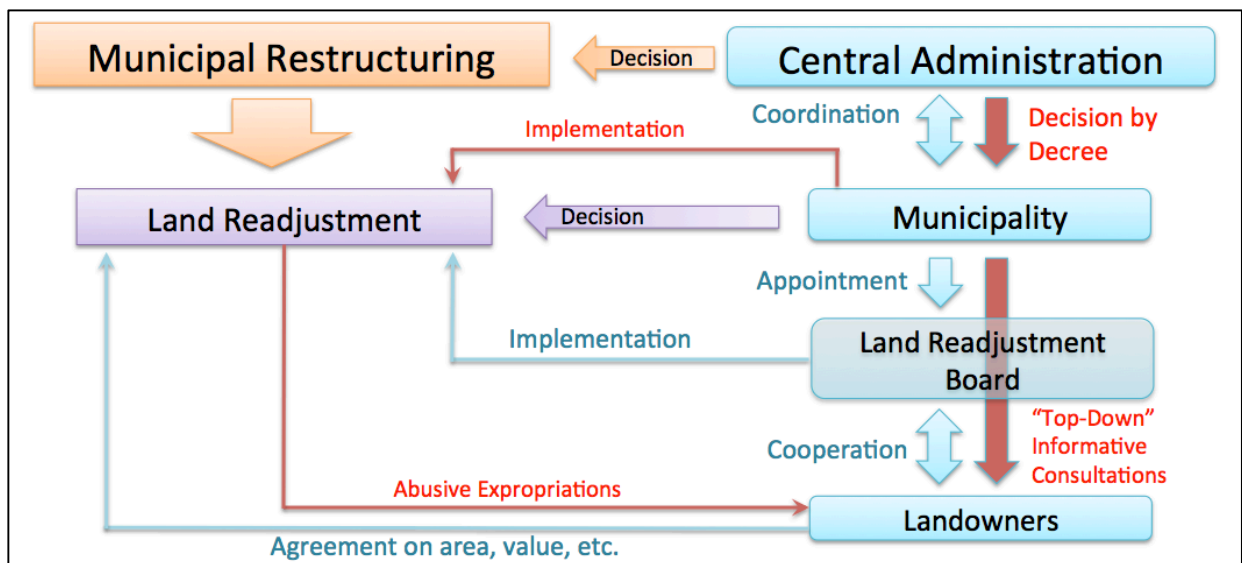
8.2. Confirmation of Hypotheses

Customary land rights become obsolete wherever land readjustment takes place, dissolving traditional prerogatives within municipal boundaries. The local needs that were supposed to be better considered with decentralization are in some extent jeopardized with the process of municipal restructuring where new entities are created or extended without any previous studies and local participation. In sum, the research concludes in the confirmation of the two hypotheses stated in the first chapter:

H1: Municipal restructurings in Chad are motivated by the need to provide more urban lands through readjustments of rural lands.

H2: Land readjustment as it occurs in Chad, creates an environment of tenure insecurity for customary land holders in form of abusive expropriations.

Figure 8.2: Assessment of Municipal Restructuring in Chad



It appears from the study that municipal restructurings are not only limited to the change in boundary of municipalities through conversion of agricultural lands (allotment), but also compromises the restructuring of informal settlements (urban restructuring). However, land allotments and urban restructurings that are part of land readjustments, are simply the consequences of unplanned urbanization of rural communities. Their implementation is based on an informative top-down approach that does not take into consideration the existing rights

on land use. The customary tenure system is simply ignored based on principles contradictory to the Chadian land laws.

Municipal authorities proceed to allotment on lands considered to be uninhabited even though local communities use them for cropping and/or other agricultural activities. Once rural entity, land allotment confirms the new status of the area that is turned to be urban. Land redistribution that follows the allotment does not follow a formal scheme, but rather lays on the pecuniary motivation of the cadaster technicians and the ability of landowners to enforce their rights. For urban restructuring, the major issue that is constantly generated is the partial or entire demolition of houses without consequent development of public infrastructures such as roads and sewage system.

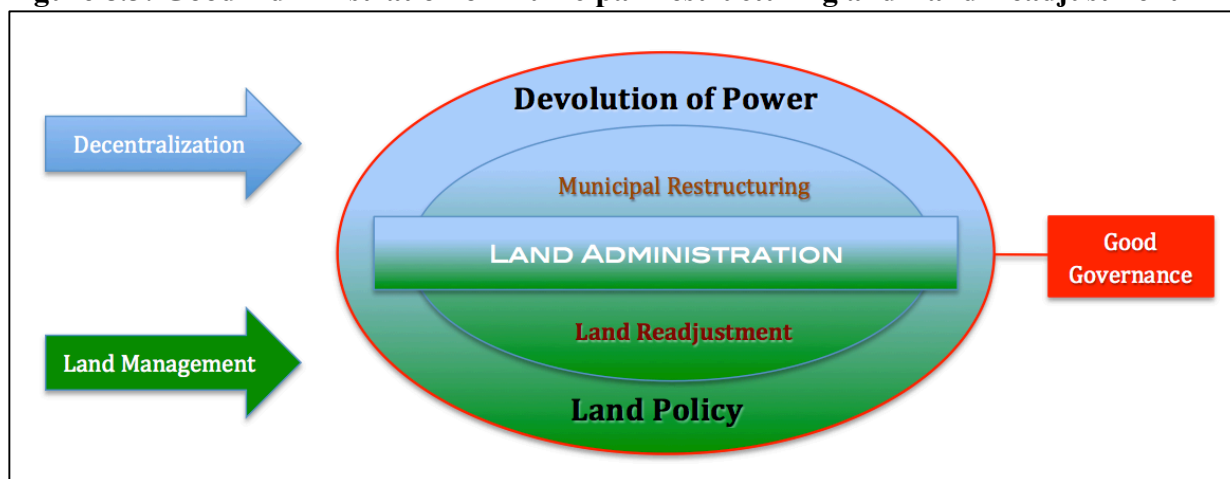
The different official texts in Chad address so well the issues of decentralization and land management. However, their implementation failed to comply with the realities. These realities need strong monitoring due to corruption in the public administration and the lack of expertise. Despite being the major population group in Chad, rural communities are ignored in most municipal restructurings. With the loss of their land use rights, they are often forced to invade and settle precariously in wrong places such as wetlands and unproductive lands. This situation inhibits their ability to sustain local livelihoods and increases therefore their vulnerability. It also makes later improvement difficult, which means more readjustments of these new settlements.

8.3. Recommendations

Decentralization has been developed and implemented not only as a response to national expectation for democratization and local participation in the administration of public affairs, but also as tool for more effective development of responses to recurrent socio-economic problems at local levels. However, at this time neither the transfer of means as part of the subsidiarity principle, nor the fiscal performance of the decentralized entities, have resulted in the availability of consequent budgets to invest in the development of infrastructures and to provide equipment and trainings.

Municipal restructuring occurs with less or no expertise on how to take into account sustainable tools. On the same run, land readjustments that follow simply put aside the vision on protecting local land use rights and the sustainability of land resources. Two elements are therefore deeply needed for a comprehensive consideration of this situation related to municipal restructuring and land readjustment: Devolution of power as part of the decentralization process and land policy as the prerequisite for all actions related to land management.

Figure 8.3: Good Administration of Municipal Restructuring and Land Readjustment



Source: Author's illustration

However, all these elements have to be embedded into good governance in order to deliver the expected impacts on local land administration. The development of private land institutions with proved expertise is one solution among others, as well as the improvement in the functioning of existing public land institutions. The composition of the local commission for urbanism (CLU) needs to be revised in order to efficiently fulfill its mandate of control and evaluation. Members of the commission should have technical expertise to analyze the content of restructuring projects, and they should also be independent from the public administration.

8.3.1. Devolvement of Power at Local Level

The effective granting of powers from central administration through devolution offers better opportunities for sustainable tools such as municipal restructuring. However, devolution of power is not a total separation from the central administration, as the political context in Chad tends to present as one reason that refrain from transferring integrity of powers to local entities. This confusion often misleads deconcentrate officials (Sub-Prefects) in their prerogatives by considering municipal authorities as under their total authority.

For more than half a century before decentralization era, administration in Chad functioned under appointed officials that put mayors hierarchically below Sub-Prefects and Prefects. In order to reverse the mindset on what is sought to be the ultimate principle, there are needs for new elected officials to be trained and have their capacity built on matters related to:

- Effectiveness and efficiency in planning, monitoring and delivery of services
- Local participation in initiating, making, implementing, and monitoring decisions and plans that take into consideration local needs, priorities, capacities and resources
- Accountability and transparency that make local elected officials directly accountable to the communities they serve

Further more, central administration should provide in terms of subsidiarity, adequate technical and financial means to efficiently perform administrative duties at local level. Municipal

restructuring should not only operate according to a top-down approach with decisions that surprise traditional authorities and relegate them into simple spectators in their own territories. Even though rural communities impacted by municipal restructuring are supposed to become urban entities, the role of traditional authorities remains important because they know their entity better than any other their administrative constituents.

8.3.2. Development of Sustainable Municipal Restructuring

Municipal restructuring in Chad needs to be economically viable and more importantly participative, because the social cohesion highly depends on whether those who are put together do not hold conflicting relationships. However, the texts on decentralization give very little indication on how to proceed to the restructurings of municipalities. The single Article that recalls the procedure of municipal restructuring only points out the economic aspect: “*in order to keep a municipality as such or to create a new one, the entity or entities should have a certain level of development that allows sufficient financial resources to sustain the administrative budget*” (Article 35¹⁷).

Mali for instance, has developed one of the best examples in terms of municipal restructuring in Sub-Saharan Africa in the sense that it does not only consider the development/financial factor, but it gives also a particular attention to the participation of communities involved in the process. The 3rd Article of the *Law N° 95-034 of April 12th 1995* regarding the Malian Local Government Code cited by Idelman (2009:3) stipulates, “*When creating a municipality, the primary concern should be that it meets the pre-requisites for a practicable territorial and human setting. These include inhabitants who wish to live together, in social cohesion, and under economic viability*”.

About	Annexation	Incorporation
<i>1.Area and population size</i>	Where existing municipalities extend their boundaries onto surrounding rural entities	Where rural communities are merged to form one municipality
<i>2.Finances and Infrastructures</i>	What are the size and the population of the current municipality to be extended?	What will be the size and the population of the rural communities to be merged?
<i>3.Cohabitation</i>	Does the municipality have enough resources to extend its boundary?	Will the municipal administration have the necessary means?
Do the communities live in harmony, or will they?		

Instead of merging communities without their agreement, Chad should take this example that first seeks the cohesion among those called to live together, and their potential to sustain the functioning of the administration. Whether in a form of annexation or incorporation, some questions need to be addressed before any decision toward municipal restructuring. Taking the example of what occurred in the municipality of Moundou and the impacts on its surrounding rural communities, for a municipal restructuring to be sustainable, these following considerations should at least be included:

¹⁷ Law N°02/PR/2000 of February 16th 2000 on the Statutes of Decentralized Territorial Collectivities

1. **Area and population size:** It becomes important to work within a margin in terms of population size with a lower end from where communities can become municipality, and also a higher end where a municipality can be split or part of it can be detached to a neighboring municipality. The definition of area can also help avoid the creation of small size municipalities. However, the two criteria (area and population) should crisscross.
2. **Finances and infrastructures:** the need for a municipality to sustain basic needs should be one important criterion. Therefore, it is important to make sure that beside the subsidiary support from the central administration, the municipality is or will be able to generate enough income to support a number of expenses (in terms of percentage of the total budget). Also, some infrastructures should exist such as health center, schools, market place, concrete roads, buildings for administrative purposes, a certain standard of housing, etc.
3. **Cohabitation:** communities that are about to merge should share the interest of living together. Of course, when conflicts exist between two communities, the solution will not come at once. And if there is a real need to merge these communities in conflict, local participation should come at the earlier stage. In fact, communities in conflict can hardly come together as one, and work for the development of their entity. However, if they understand the need of being part of the same municipality, they can theoretically put aside their differences.

8.3.3. Development of a Sustainable Land Management

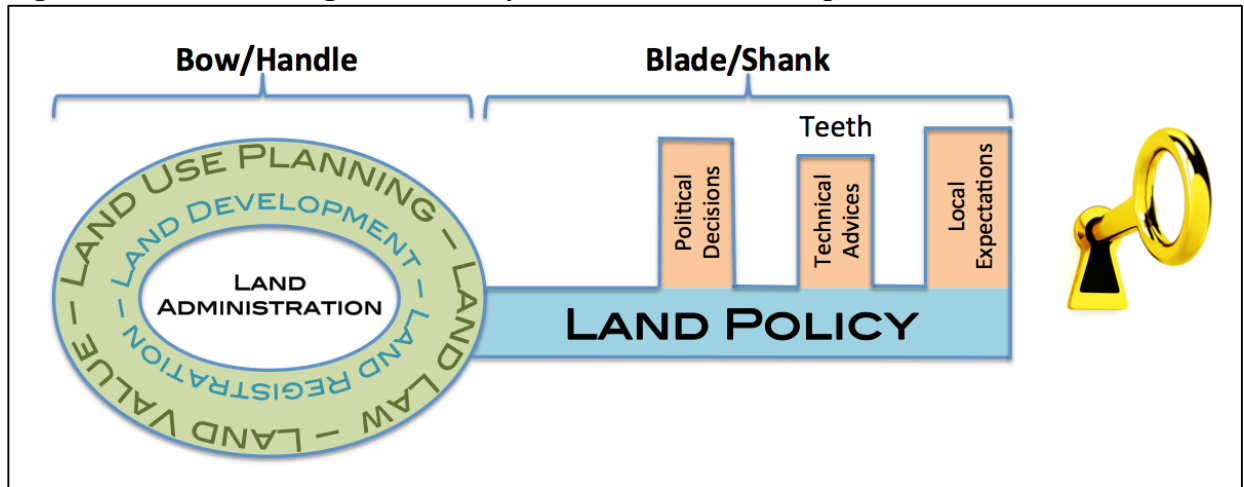
Like in most African countries as cited by UN-ECA (2010: 5-11), land question in Chad has its origins in geo-political, economic, social and demographic factors. These factors include the French colonial administration coupled with the indigenous cultural systems that justify today's dualism of the tenure system. Therefore, the development of sustainable strategies for the management of land resources should take into consideration these different factors with in mind that they constantly evolve over the time.

Land policy in Chad is more often summarized in a form of political vision stated in one or two pages that justifies decisions on recurrent topics such as herders versus farmers' conflicts. The land administration for instance operates under the same law since 1967. The different attempts for modification have failed adoption as soon as they reach the House of Parliament. The recent bid on the pastoral code for example, has raised indignation among the population and within the political sphere reaching the point that the Head of State took a decision to cancel the texts right after its adoption by the House of Parliament.

The incriminated texts clearly favor one side over the other in the very sensitive and recurrent land conflicts between farmers and herders. Without technical expertise and consideration of local expectations, the texts solely based on political concerns could have intensified the already explosive relationship between nomadic herders and sedentary farmers. The country

strongly needs to address the inadequacies of the very old land law with the current realities. Such land policy can offer better guidelines in the mitigation of land related conflicts and a context for sustainable land management.

Figure 8.4: Land Management as Key to Sustainable Development



Source: Author's illustration

For a country that counts on more than 80% on agriculture like Chad, the key to its sustainable development is closely linked to the adequate management of its land resources. However, Chad lacks political will to seriously consider the different issues of land management across the country. A key serves as a security token for access to the locked area, and only persons having the correct key can open the lock and gain access. For that reason land administration requires a board of experts having all the necessary tools in terms of finances and materials. At the end, land policy that sets the objectives needs to be well thought and not developed only based on political motivation.

a. Land Administration

Represented here by the bow or handle, which is the head of the key, left protruding from the lock so that user can apply torque. This is the part of the key that receives the movement for activation. For the implementation of all decisions on land related matters, the land administration needs a certain number of efficient tools. Some of these tools are directly accessible at the municipal level; others require approbation or design from the central administration. Land registration and land development for instance are tools that the municipal implement without approbation, while the aspects of land law, land use planning, and land value require prior decisions from the central administration.

Land registration: Ownership and any land related rights should be recorded and kept in a data base system in order to provide whenever needed, the evidence of title and therefore to facilitate transactions and conflicts resolutions. One important aspect of land registration is the cadaster. As for Chad, the adopted French system needs to be simplified in order to be more relevant and efficient, especially for remote communities.

Land development: Municipalities should be able to offer improved lands ready for housing, commercial, or industrial building sites. This includes sewage systems, drinking water supply, electricity, roads, etc.

Land use planning: The importance of planning land uses lays in addressing the needs of the community while safeguarding the resource for future generations. This requires most often adopting systematic assessment of existing potential, alternatives for land use, and economic and social conditions in order to select and adopt the best land-use options (Young, 1993). The development of the Referential Urban Plan (PUR) should take into consideration the different aspects of sustainable land uses.

Land value: In this case, land value includes both the value of the land itself as well as any improvements that have been made to it. Obeying to the law of markets, land values increase when demand for land exceeds the supply of available land. It can also be because of its particular location with an added value (near a road, in a city, etc.) or that it has intrinsic value greater than neighboring areas (good soil, etc.). Owners of land, use land value to determine how much to charge other parties for its use. Land value in Chad is not regulated by any institution and therefore, prices vary randomly, which limits access to land from low-income households.

Land Law: The dualism of the tenure system in Chad requires a set of laws adapted to the context in order to secure the relationship over land, whether customary or statutory.

The functioning of land administration in Chad is very confusing as the different actors involved in the process are not well equipped: lack of technicians and materials coupled with insufficient budget. Therefore, the difficulty to activate the key refrains the movement that would release the door to a sustainable development.

b. Land Policy

Represented by the blade or shank, which is the portion of the key that slides into the keyway of the lock, land policy is most often the invisible part of land management but not the least important. Like the blade composed of teeth, land policy is shaped by local expectations that in turn guide technical advices, which are at the end revised by the political board of decision-makers. This part of the key is actually the one that engages the tumblers to activate the lock. Teeth are shaped in a form that they usually operate one specific lock or a small number of locks keyed alike. Each country has its own realities, and there cannot be a set of land policy that would work for all countries, even though some general guidelines can be provided for specific regions taking into account the similitudes of politico-socio-cultural contexts.

Local expectations: Most Chadians, especially among the low-income households, claim regularly for equitable access to land resources and a sound security of tenure. However, these claims sometimes go against the sustainability of the resources, whereas the necessity for technical advices on different land related matters.

Technical advices: The vision of experts helps reshaped the expectations in a sense that it provides a technically feasible context without compromising the resources on a long run. These advices also go beyond what is expected by the population, because the different studies done try at the best to include all land related issues.

Political decisions: For political reasons some technical advices may not be relevant or even explosive in terms of conflicts. For example, one of the solutions to the conflict between herders and farmers would be the creation of transhumance route as it used to be in the early independence. However, this route can also increase the already precarious security context.

8.3.4. Harmonization of Customary and Statutory Tenure Systems

The context of land readjustment explored in this study reveals the confusion in the plural legalism of the tenure systems in Chad. The weakness of customary institutions to enforce land use rights makes traditional laws obsolete in face of the statutory tenure system. Knowing that nearly 80 per cent of the Chadians depend on agriculture and on customary tenure system as a mean of access to land, the priority should be given to the harmonization of the two tenure systems.

In September 2013, the government of Chad presented a draft law on land acquisition to the House of Parliament. The project started in 2004 as one-week seminar with the participation of technicians from the different ministries in connection with land. From that seminar, the participants made propositions that aimed to revise the Land Laws elaborated in 1967. However, the texts proposed in the bid cover only a tiny part of the situation on land tenure, which is the situation between nomadic herders and sedentary farmers.

Based on this Chadian context of legal pluralism, the new texts should consider how to best integrate statutory and customary legal systems. The elaboration of the new texts on land law would have to take into consideration the practices of the people and the objectives of the state in order to offer solutions that will be adopted and implemented on the ground, in response to state, community and individual interests.

8.3.5. Simplification of Land Titling Process

The current procedure for acquiring land title certificates in Chad is exhausting and at some point impossible to reach for many among the low-income households. The approach is based on the French cadastral system that requires several institutions to compile the ownership document. For instance, the plan delivered by the cadastral service does not prove ownership. It has to go through the department of domain and finances, and in some cases with notarization of the documents.

The process does not take into consideration the lack of services in most municipalities, and the lack of information for most landowners. The simplification of the land titling process should consider having for example one single institution dealing with the whole process. The other

aspect to be considered should also be the different fees involved in the process. However, the high level of corruption in the land administration should be addressed first in response to need to have transparency in land transactions.

The simplification of land titling process would encourage existing and prospective landowners to regularize their situation and contribute to reducing land disputes and improve access to land in the expanding urbanization. The host ministry should explore the possibility for collaboration of private and public sectors for the provision of services at a “one-stop shop” in the processing of titling certificates.

8.3.6. Regulation of Land Sales (Land grabbing issues)

Large-scale land acquisitions should be regulated, especially in the direct neighborhood of municipalities. Usually, those who acquire big portions of lands are among the high-income social class, with the possibility to easily go throughout the land titling process. This creates landlessness with the impacts on the sustainable use of other natural resources. For example, the sale of lands should be regulated in the sense that external buyers are given the possibility to purchase only up to a certain area in a given community close to a municipality.

Also, orientations should be given for land uses and developments through zoning. For example, rural entities in the surrounding of municipalities should be assigned different specific zones (agricultural, residential, commercial, industrial, etc.) with the description of rules under which those lands should be used. An agricultural lands for instances cannot be developed for residential purposes. When the restructuring of the municipality encroaches on that entity, this will give margins for preservation of natural resources and the development of public infrastructures.

8.3.7. Development of Participatory Land Readjustment

The UN-Habitat with the contribution of the FIG developed a model of participatory and inclusive land readjustment (PILaR) with the following objectives (Padros, 2014):

- Provide affordable serviced land to reduce the negative impact of informal settlements,
- Through land value sharing, offer new public and private sector approaches to help finance infrastructure and share the burdens and benefits of development,
- Generate greater community support for urban development, and,
- Enhance overall urban sustainability.

Introducing the concept in all municipal restructurings will help Chadian government and local authorities to better tackle the challenges of land readjustments, through a rights-based approach where participation and inclusiveness and of managing private and public sector roles and responsibilities will be central. Overall, the implementation of PILaR requires considering the community knowledge, the expert opinion and the municipality needs.

a. Systematic and sustainable Land Allotment

In contribution to avoid unsustainable settlements of agricultural lands, land allotment should be systematic up to a certain radius around municipalities. In order to reduce the cost, this systematic allotment can consider blocks instead of plots. For example, landmarks can be installed for the identification of main roads and streets. Also areas reserved for settlements, agricultural activities and green spaces can be marked to avoid their squatting.

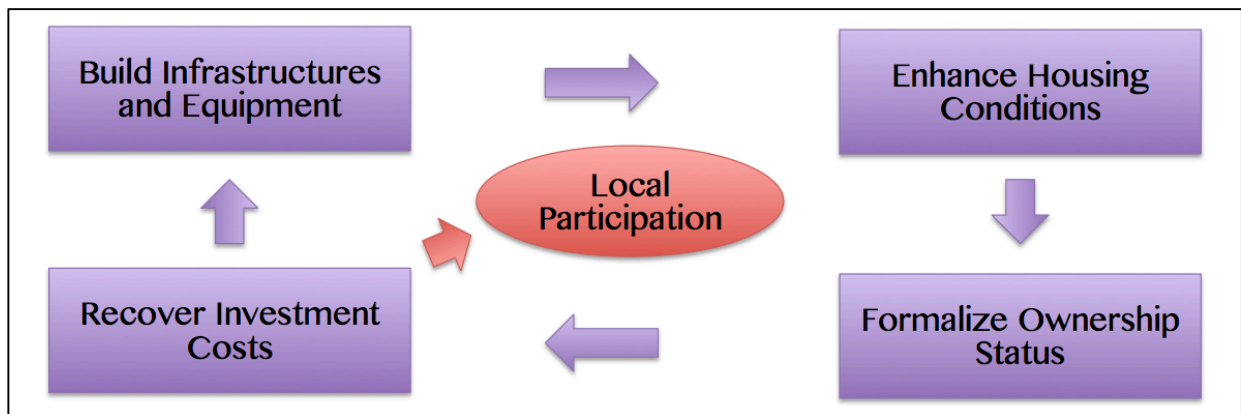
Land allotment should also include public reserves for future projects as the current ones do not consider for example reserving areas for waste collecting, schools, churches, mosques, market places, etc. The demolishing of settlements for public projects tends to create frustration and very often generates violence in their implementation. Because of the dual tenure system, settlers with customary cannot be considered as squatters or informal settlers. Therefore, expropriating them without compensation contradicts the *Law n° 23 of 1967*.

The municipality should also proceed to regular inspection of allotted areas in order to notify probable squatters of their illegal situation and the consequences that would follow.

b. Participatory Urban Restructuring

In order for urban restructuring to fulfill its mission of improvement of spatial environment, the development of public infrastructures should follow the demolishing process. Roads and sewage systems should be built or improved. The formalization of ownership status should offer those under customary rights to engage the titling process. For the costs involved in the restructuring, municipality and population should contribute in covering the expenses. By recovering the expenses, the development of public infrastructures could be extended to other localities.

Figure 8.5: Sustainable Urban Restructuring



Source: Author's illustration

The development of such participatory restructuring calls for consultations with the populations at the early stage of the process. The technical expertise is also one key-element in this case, as it helps for example identifying the type of infrastructures needed and their costs. The provision of adequate services through urban restructuring can be a great motivation towards participation

of the impacted populations. In fact, many landowners across the country take themselves the initiative of restructuring their areas and covering the expenses after requesting and having it implemented by their municipality.

8.3.8. Development of Inclusive Land Redistribution Criteria

The Article 27 of the *Decree N°187/PR of August 1st 1967* stipulates that not more than 5% of the value or the size of a parcel can be expropriated without compensation. Therefore, land redistribution should take into consideration the size and value of lands before and after readjustments. However, if the determination of plots sizes requires little expertise, the estimation of their value needs to incorporate number of factors that calls for multidimensional expertise.

Because of the difficulty to form a board of experts on the subject, the country could develop a concept of fixed value of lands according for example to their location and the existing of public infrastructures. In the case of land readjustment where rural entities are the one to be impacted, the prior value would consider for example the impacted entity as rural and without infrastructures; the post value will depend whether or not development has been made as part of the readjustment.

8.4. Methodological Limitations and Direction for further Research

The choice of qualitative research approach lies in the exploratory scope of the current study. In fact, very few studies exist on land tenure subjects in Chad. Most of the articles found are not scientific, but rather journalistic. Such documents are usually very subjective, and therefore have little contribution in scientific writings. This situation calls then for researcher' own investigation on the field. However, data collection on the field brought other challenges. The political instability and the corruption context make most information on public administration very confidential. Some officials, afraid to be ejected from their position, refuse to divulgate most information; As a consequence, any interview on public affairs requires a signed authorization from the host minister, or a close connection with any influential civil servant.

Some information that might have been relevant to showcase some situation could not be collected. In the case of abusive expropriation for example, it could have been quite relevant to have the size of plotted area in annexed communities; the number of new dwellers that acquire plots through sales after Allotment; the number of landowners with land title for the municipality, etc. Consequently, the research focused on the impacts of land readjustment and how the process could be improved. The study reveals a very strong need for training expressed by all Local Elected Officials, even by most of the cadaster technicians. Therefore, the outcome of this current research could lead to further studies with the objective to adapt it into training materials for public officials.

8.5. Closing Statement

Control over land uses and access remains a constraint despite attempts to rationalize its management. Instead of providing solutions to number of informal settlements, land readjustment as it occurs in the municipality of Moundou tends to rather generate problems mostly in terms of abusive expropriations. Low-income households preferably move to customary lands with easiest access but lesser secured. Moundou has grown over the years to become an inappropriate living place for the poor. The city continually sprawls on the surrounding rural entities without sound technical and law considerations. The nearest municipalities are located at about 30 km to the Southeast and 50 km to the Northwest. These two municipalities however are not economically important as Moundou, which makes their growth quite inexistent. The progression of Moundou can probably only be stopped by the nearest city that can stand its ground.

Although land readjustment remains an important land development tool, especially for the newly decentralized administration, its implementation constitutes a great challenge that requires decisions from the higher institution and participatory approaches at local level. The political context seemingly does not favor any constructive actions for local development. Each political representative at the head of municipality acts as if local opinion and consideration of population needs are not important elements of administration. The essence of decentralization is misunderstood here. However, who is to blame in this case? For the first time in 2012, municipal authorities are chosen among the elected officials, but yet they are given little opportunity to efficiently perform their role and responsibilities. Most of Municipal officials act as if they were still appointed by the central administration, and therefore not accountable to their constituencies.

Land readjustment will remain a crucial issue in the next decades, because annexation and incorporation as part of municipal restructuring continue to be fully integrated in the decentralization process. Although the current research does not pretend to be exhaustive on the issue in Chad, its motivation is to provide a sound understanding of the issue in order to pinpoint some of the crucial elements. From that on, further studies are recommended to adjust the solutions to regional context, knowing the important differences between land uses in the Saharan desert and the Savannah, as found in Chad. However, access to relevant information constitutes one major challenge in doing research in Chad. One obvious proof is that very few information on any topic linked to Chad exist on the web. Therefore only field investigation could provide answers to most of the questions that this study addresses.

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QUESTIONNAIRE GUIDE

A. Key Informants

A-1. Municipal Representatives and Cadaster Technicians

<i>About the Management of Public Administration</i>	
1	Since When does your municipality exist?
2	What was the main motivation behind the creation this municipality?
3	How many villages initially formed this municipality?
4	Do these villages continue to have traditional leaders? What are their prerogatives?
5	Do you work with the traditional leaders? How?
6	Did the municipality change in size since its creation?
7	How do you meet the financial needs of your municipality?
<i>About Land Use and Land Development</i>	
8	Does your municipality have a cadaster unit?
9	What are the major challenges that faces the cadaster unit?
10	Who decides on the design and the implementation of public infrastructures? Central government or your office?
11	Who take in charge the costs of these infrastructures for your municipality?
12	What are the major hindrances in the design and the implementation of these infrastructures?
13	What are the different activities tied to land in your municipality?
14	Does your municipality have a master plan to follow in the development of these activities? Who design it? Central government or your municipality?
15	Do you receive any recommendation from the central government on land development?
<i>About Municipal Restructuring and Land Conflicts</i>	
16	How is decided the extension or the creation of new municipalities?
	What is the process of municipality extension and restructuring?
	Does the municipality has enough skill to carry out the restructuring process?
	Do you involve villagers in restructuring process?
17	Do you incorporate customary ownership during the process of land parceling?
18	In case of expropriation, what are the compensation measures put in place?
19	What sort of conflicts usually arose from land parceling processes?
	How is tenure security affected by restructuring process?
	What are the general problems you encounter during restructuring process?
20	What are the lessons learnt from previous restructurings?

A-2. Community Elders

<i>About Customary Tenure System</i>	
1	How many villages initially formed this municipality?
2	How did the settlement progressively occurred?
3	Do these villages continue to have traditional leaders? What are their prerogatives?
4	Do they continue to work with the municipality? How?
5	Did the municipality change in size since its creation?
6	Could you explain the tenure system according to the local tradition, and how it has evolved over the years?
7	Does the population continue to rely on customary tenure system? Why?
8	How does this dualistic situation of customary tenure and statutory systems work?

<i>About Land Use and Land Development</i>	
9	What are the principal activities that depend directly on land in your municipality?
10	Have these activities changed in the last years? Why?
11	What used to be the principal activities prior to the new municipality?
12	How was the type of relation between herders and farmers?
13	How was the access to land for women and herders?
14	How was the consideration towards natural resources management?
15	Do you think a customary tenure system still has a place in the current municipality? Why?
<i>About Municipal Restructuring</i>	
16	Does your municipality change in size over the last years?
17	How was the participation of the traditional leaders in the restructuring process?
18	Did local population received compensation in the expropriation of their lands? In which form? Are they satisfied with the amount?
19	How did the restructuring change (positively and negatively) the local living conditions including tenure security?
20	What are the principal activities affected by the restructuring?
21	Do traditional leaders oppose municipal restructuring?
22	What do you think could be improved to sustain local livelihood?

A-3. NGO Leaders

<i>About Municipal Restructuring and Natural Resources Management</i>	
1	Does your organization work in relation with land management and/or decentralization?
2	How does decentralization affect the tenure system in your zone?
3	Does your organization know about any consequences of municipal restructuring?
4	What are these consequences?
5	How does the local population feel about the impacts of municipal restructuring?
6	Do you observe any change in land acquisition procedures either in rural and urban areas?
7	What are the solutions usually offered in case of expropriation?
16	Do you see any negative impacts on the sustainability of land resources?
17	What are the alternative solutions for farmers and herders who lose their agricultural and pasture lands?
18	Do you see any positive changes with the new administrative system?
19	What could be the best options or steps in these municipal restructurings?
20	Does the central government learn from its failures? I don't think you can get correct answer.

B. Focus Groups

<i>Women</i>	
1	What are your major land related activities?
2	How do you access land in these activities?
3	Do women hold permanent ownership on land?
4	Is it more difficult for women to access land under customary or statutory tenure system?
5	What are the major changes in favor of women regarding access to land?
6	Can this be improved?
7	How does decentralization/municipal restructuring affect your activities and your land rights?
<i>Farmers</i>	
1	How much do you know about decentralization?
2	What are the positive and negative aspects of decentralization?

3	Will you agree to merge with other rural communities to form a municipality?
4	Is it important to keep your traditional tenure system?
5	What are the negative aspects of the customary system?
6	What are the positive aspects of the customary system?
7	What has changed over the last decades?
8	How do you think you could improve your tenure system?
9	How is the cohabitation with nomadic herders?
10	What are the consequences of municipal restructuring on your activities?
11	What solutions do you suggest in case of restructuring?

Herders

1	How much do you know about decentralization?
2	What are the positive and negative aspects of decentralization?
3	What are your main activities?
4	How often do you migrate? Has the route changed over the years?
5	Do you settle for longer time than before? Why?
6	How do you establish contact with local authorities prior to your settlement?
7	How is the cohabitation with the sedentary farmers?
8	What are the major recurrent conflicts?
9	Is it important for you to keep your nomadic way of life?
10	What are the inconveniences of this nomadic lifestyle?
11	What are the positive aspects of the nomadic lifestyle?
12	What has changed in your activities during the last decades?
13	What are the consequences of municipal restructuring on your activities?
14	What solutions do you suggest in case of restructuring?

C. Household

<i>About Land Development, Land Access and Land Titling</i>	
1	Are you from this community/municipality?
2	What are the existing public infrastructures in your area?
3	Are you satisfied with the public services? If not what services are missing?
4	Do you hold any land ownership? Customary or Statutory?
5	What are the different processes you went through in order to acquire it?
6	What are your main activities on the lands you hold ownership?
7	Do you hold any written document testifying your ownership?
9	Do you think your ownership is secured? Please justify your answer.
8	If you don't have, Why not take a step towards land titling?
<i>About Municipal Restructuring and Tenure Security</i>	
10	Have you encountered expropriation? If yes, is it linked to recent restructurings?
12	have you received any compensation? Are you satisfied with that?
13	How will an expropriation affect your livelihood?
14	Do you have other alternatives?
15	Will you keep your land or sell it if the cadaster grants you some parcels after the restructuring process? (Knowing that the price will rise)
16	What are the major issues raised by the new administrative restructuring?
17	What solutions could be recommended?

