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Status of Land and Natural Resources Administration in Burundi: an overview

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Abstract

In the framework of collaboration for country based case studies on land and natural resource tenure security in Eastern and Southern Africa by the University of Nairobi/ Centre for Urban Research and Innovation, a case study was conducted in Burundi. Data collection was based mainly on literature review of legal texts and all studies realized in the area of land tenure and natural resources in Burundi, and field visits. This paper presents only the synthesis of the information and data collected on land, water, mines and forests. The results include mainly their distribution, legal framework and administration. The diversity of actors and institutions intervening in the management and administration of the land and natural resources in Burundi is challenging. In such way, existing education programmes related to land are involving many Departments and Faculties of the main University (University of Burundi). I the aim of human and institutional capacities building, it is therefore important to set up a specific teaching/training and research programme dedicated to the land administration.

Key words: administration, Burundi, land, natural resources

I. INTRODUCTION

Land and natural resources are critical aspects for the development, especially in developing and emerging countries, but this condition becomes a reality as long as those natural resources are well managed and the subsequent rights are well enforced. Those rights can be notably rights of access, use and distribution.

With an average of about 6 Children per women (Burundi Population census 2008-Ministère de l'Intérieur 2011), Burundi population doubles each 30 years (MINATTE 2005, MASHARABU 2012) leading to a high pressure on natural resources and land conflicts. More than 70 % of conflicts reported in Burundi through different courts are linked to land (KOHLHAGEN, 2011). Figure 1 shows the demographic trend over time and size of protected areas in Burundi 1970-2008 (MASHARABU, 2012).

Attention will be focused here on Burundi natural resources, particularly land, forest, water and minerals' distribution at the national level, the subsequent legal framework and their administration institutions. It important to remind that in the framework of collaboration for country based case studies on land and natural resource tenure security in Eastern and Southern Africa by the University of Nairobi/ Centre for Urban Research and Innovation, a case study was carried out in Burundi by Kabanyegeye & Masharabu (2015).

2.0 MATERIAL AND METHOD

Study area

Figure 2 shows the location of Burundi through which protected areas are also highlighted (MASHARABU et al., 2012). Those protected areas are hotspots for natural resources in Burundi.

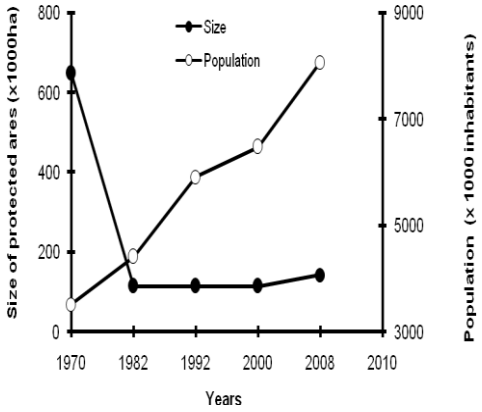
Data collection and analysis

The study was carried out through literature review of existing legal instruments and studies realized in the area of land tenure and natural resources in Burundi. The main information collected and

discussed is related to land, forest, water and minerals' distribution at the national level, their subsequent legal and institutional framework.

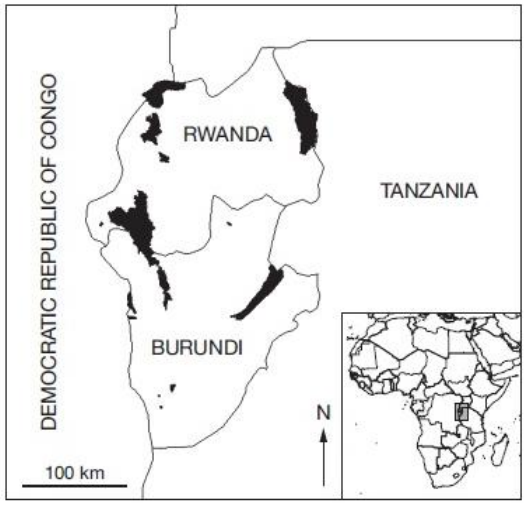
The main legal and institutional instruments consulted during this study included government policy documents and reports mainly in the Water, Environment, Sanitation and Minerals. These included the old records from 1976 to 2000 and those in place during 2008 to 2013.

Figure 1: Demographic trend over time and size of protected areas in Burundi 1970-2008



Source: Masharabu (2012), modified

Figure 2: Location of Burundi, highlighting the protected areas



Source: Masharabu (2012), modified

3.0 RESULTS AND DISCUSSION

3.1 Land

Land Use Distribution

Currently, the existing data on the land occupation in Burundi are very contradictory and there is not inventory so far. However, estimates comparing diverse data are provided in the following table (Table 1).

Table 1: Land occupation in Burundi

Ecosystem types	**Surface (ha)**	**%**
Natural forests ecosystems	240716	8,65
Artificial forests ecosystems	164000	5,89
Aquatic ecosystems (Lakes, Rivers& non cultivated Marshlands)	263400	9,46
Food crops (outside marshlands)	1210000	43,47
Cash crops	104000	3,74
Marshlands (cultivated)	81403	2,92
Pastures, savannahs	725381	26,06
Towns	25000	0,90
Total	**2783400**	**100**

Source : Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme, 2013, modified

Legal framework

Burundi used to be among the first countries in the sub-region to adopt a land policy in 1986. Since 1986, other laws have been enacted but they only amended it partially.

This code took its origin from the ambition of harmonizing different existing land statutes. The review of the land Act in 2011 did not comply with a complete review of the whole set of instruments having a direct link with the land issues, notably the forest legislation, water related legislation, legislation of marshlands, legislation on the environment, etc.. Thus, some provisions of the new draft land Act are likely to run in

contradiction with the existing legal instruments, notably in terms of succession (CCFD, 2009).

Although the 2011 Land Act was translated into Kirundi, there is evidence to indicate public ignorance of the law is still rampant. Queries such as those recorded by Ouédraogo(2007) have persisted:
"…*legitimately why they are asked to undertake lengthy procedures, complicated, and expensive, to recognize land rights they hold from their ancestors, and that everyone recognizes as legitimate on their hill*…"

Land administration institutions

Land matters in Burundi are handled by at least six ministries and a host of public commission and institutions. These include: (i) The Ministry of National solidarity, Repatriation, National Reconstruction, Human rights and Gender; ii) the Ministry of Agriculture and Livestock; iii) the Ministry of Water, Environment, Land Management and Urban Planning; iv) the Ministry of Public Works and Equipment; v) the Ministry of Home Affairs and patriotic education; vi) the Ministry of Justice and Keeper of the Seals.

Beside the ministries, there is the National Commission for Land and other properties (CNTB), an institution established in 2006 whose competence covers disputes related to all lands and all other properties destroyed or stolen during the Burundian Civil Wars of 1990s. Others include the National Communities and Hill (COLLINE) which is an institution of elected people, Courts and the Institution of Bashingantahe, a traditional informal institution recognized by the society.

For purpose of coordination and smooth implementation of the national land policy, the Government of Burundi has set in place the following institutional device:

(i) Land Sector Based Groups;
(ii) Inter-Ministry Steering Committee for Land Reform;
(iii) Coordination Unit of Land National Programme;
(iv) The National Land Commission and
(v) The Coalition of the Civil Society on Land.

3.2. Water

Water distribution

Recent data related to the use of water are rare at national level and the sole data available are those drawn from the National Action Plan for the adaptation to climate change (PANA) of January 2007 (MINATTE, 2007).

According to those data, water resources are still less used in the process of socio-economic development of Burundi, with sector based estimates of water use respectively 69% for agriculture, 17% for home use, 8% for livestock and 6% for industry. Figure 3 shows Burundi natural water distribution across two watersheds (basins): Nile and Congo watersheds (basins).

Legal framework- Water Sector

The analysis of legal and regulatory documents on water in Burundi shows that water has been submitted to varied legal plans, depending on prominent concerns prevailing at a time.

The legislation applicable to water during the colonial period was decree of 6 May 1954, whose content is transposed in article 19 of the former book II of the Civil Code which is applicable in Burundi. During that period, water was in abundance and was not considered as a scarce resource, to be used within limits.

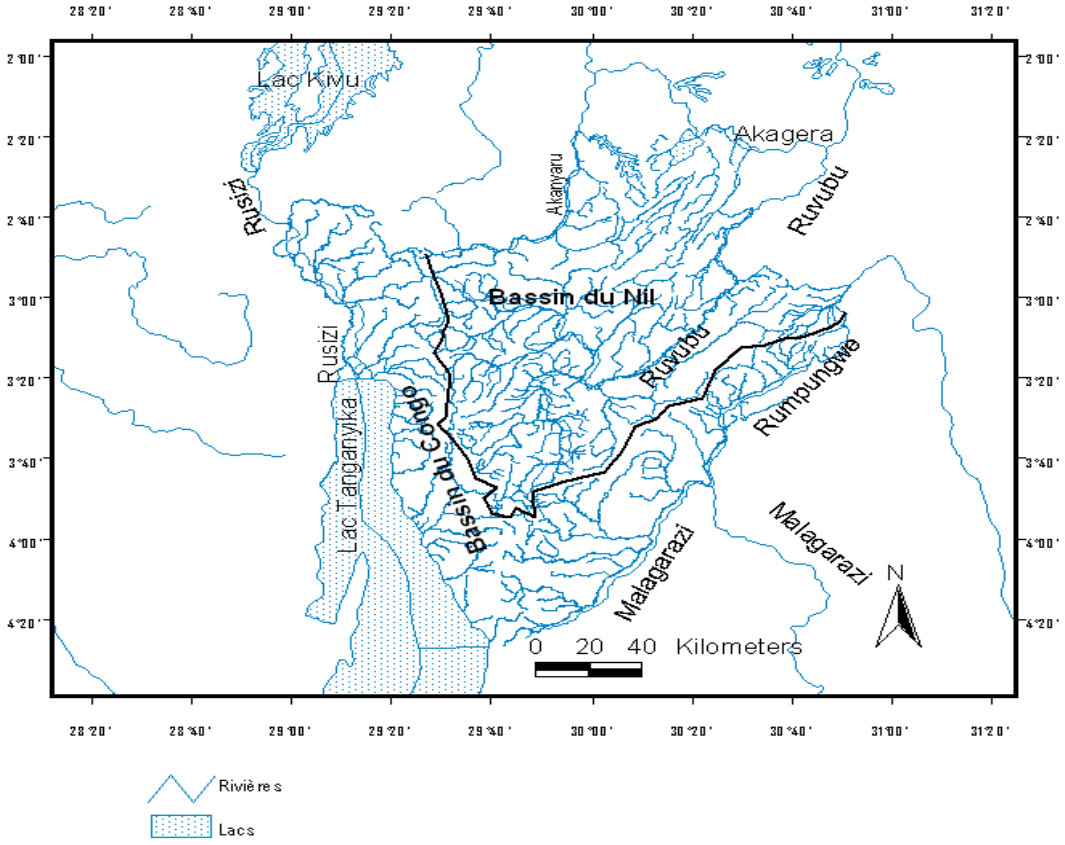
With time, the pressure on water combined with the effects of pollution, climate change and mismanagement, it has been recognized that water was no longer an inexhaustible resource. It became a resource which was more and more threatened and which deserved a special protection. This led the Burundian legislator to change directions in terms of legal framework on water:

"…*water stopped being in the category of common things left for uncontrolled use of all and moved to the category of resources worth appropriating, and for which the country should continuously assure protection...*"

It is with the enactment of the "Land Code" by the Decree n°1/008 of 1st September 1986 that the first step towards changing the legal framework on water was achieved.

Burundi had to wait for the enactment of Decree No. 1/41 of 26 November 1992, governing the establishment and organization of the public hydropower sector, to strengthen the will to ensure a better protection of water resources in a unified legal context.

Figure 3: Burundi natural water distribution



Source: Polygenis-Bigendako(1990), modified by Bizuru (2005)

Decree No.100/241 of 31 December 1992 regulates the drainage of waste water in urban areas. The decree was entered into force one month after the enactment of the decree governing the establishment and organization of the public hydropower sector but not at the same level in terms of hierarchy as the text here above mentioned. Indeed it constitutes an implementing regulatory instrument and is hierarchically lower. It only provides for implementation modalities of some of the instructions and general guidelines formulated by the decree of 26 November 1992. Exclusively covering urban centers, the decree intends to preserve the quality of the environment, assure hygiene and public sanitation by regulating the drainage of waste water from domestic, handicraft, industrial, agriculture sectors or any other similar water. The same document does not

only determine the modalities of draining waste water and similar waters, but those modalities must also be organized around the collection, drainage, treatment and rejection of treated wastes as well as the remnants resulting from the treatment process.

The enactment of Law n°1/010 of 30 June 2000 governing the Code on Environment came to strengthen the decree establishing the public hydropower sector. The Code on Environment therefore included several additional provisions to the decree of 26 November 1992 in order to adequately regulate *activities of collecting water intended for human consumption*, the collection of water in water springs for commercial, industrial or agricultural ends, the pouring, running, rejection of direct or indirect deposits of any nature likely to provoke or increase surface and underground water pollution. Moreover the Code on Environment was enacted to fill a big gap that was so far left unresolved by the Organic Law of the public hydropower sector.

The Law n° 1/014 of 11 August 2000 governs the liberalization and regulation of public bodies in charge of potable water and power energy. This law was enacted to open the management of potable water to registered public and private companies.

Although the decree n°1/16 of 17 May 1982 governing the code of public health does not have any provisions regarding the water sector or natural resources, it however has, in title I, several provisions and measures applicable in agglomerations and among which some are related to water and sanitation. Some measures are related to drinking water. In that regard, any water project intended for consumption of potable water is subject to the prior authorization of the Minister of Public Health or health authorities appointed by him. Besides, the project must comply with international standards on drinking water.

Water administration institutions

At least 11 ministries are responsible in one way or another, with the management of water resources and infrastructures of the water and sanitation sectors in Burundi: These include (1) the Ministry of Water, Land Management, Environment, and Urban Planning, responsible for water management, in a bid to achieve the post 2015 Millennium Development Goals related to management of the environment; (2) the Ministry of Public Health, in charge of public health, hygiene and sanitation; (3) the Ministry of Agriculture and Livestock, responsible for agriculture, livestock and fisheries; (4) the Ministry of Energy and Mines, with the responsibility of managing water and hydraulic infrastructures; (5) the Ministry of Planning and Reconstruction, with the responsibility of reducing poverty and public expenditures; (6) the Ministry of Public Works and Equipment, in charge of road drainage; (7) the Ministry of Commerce, Industry and Tourism, responsible for industrial waste water; (8) the Ministry of Transport, Posts and Telecommunications, in charge of lake transport; (9) the Ministry of Decentralization and Communal development, responsible for community commitment and local infrastructure; (10) the Ministry of High Education and Scientific Research, in charge of research and statistics; and (11) the Ministry in charge of East African Community Affairs, in charge of regional integration.

Apart from the multitude of ministries involved in this sector there are six Para-statal institutions which are in charge of the water sector and sanitation. These include (1) Water and Power Production and Distribution Company (REGIDESO) which is in charge of production, supply at a fee of potable water in Burundi urban centers; (2) the General Directorate of Hydrology and Rural Energies (DGHER) whose main mission consists of initiating projects on production of potable water in the Burundi's rural areas and supervise Communal water utilities to sustain the

distribution and maintenance of those infrastructures; (3) the Burundi Geographic Institute (IGEBU) whose main mission is to collect hydro-climate data; (4) the Burundi Environment Authority (OBPE: Office Burundais pour la Protection de l'Environnement) responsible for the protection and management of protected areas (parks, national forests); (5) the Municipal technical services (SETEMU), in charge of sanitation in urban areas as well as treatment and recycling of waste water; (6) the General Directorate for the Promotion of Health, Hygiene and Sanitation (DPSHA) responsible for (i) Promoting public hygiene and hygiene of the area for a sustainable human environment; (ii) Contributing to all activities related to sanitation of the area; (iii) Contributing to the establishment of a monitoring system of water quality in collaboration with all the institutions in charge of potable water supply; (iv) Mobilizing the population to adopt conducive behaviors, attitudes and practices for health; (7) The National Commission for Water and Sanitation is in charge of trans-sectoral coordination.

Finally, there are also various associations (local NGO's) operating in the sector of water and environment, without forgetting a great number of companies dealing with mineral water business: Akacu, Aquavie, Kinju, Ramba, Saga, Sangwe, Tanga.

3.3. Forests

Forest Distribution

According to the data from the "Evaluation of global forest resources 2010" of FAO, Burundi forests' surface was 10,000 ha and has remained stable despite the destruction related to the 1993 crisis. In 2010, forests' surface was estimated at 15,000 ha. These are public forests, located on deep and rich soils. The increase in the 2010 estimates is due to the 2001 forest policy which intended to increase forests coverage to 12% of the total land surface by 2012 by promoting agro-forestry, developing forest resources, promoting alternative mechanisms conciliating conservation and development and by reducing the degradation rate of natural forests and protected areas (FAO, 2010).

Legal framework related to Forests

Burundi is equipped with legal and regulatory texts such as domestic legislations and international conventions ratified by the Government.

Concerning domestic legislations, the government enacted a forest policy in 2006 which is a set of action guidelines adopted by public officials in charge of forests and in harmony with national socio-economic and environmental policies and intended to guide future decisions on the management, use, and conservation of forests and trees in favor of the society. The 2006 Forest Policy, describes the goals, priorities and implementation measures on forests .The national forest programme refers to a wide range of approaches for the formulation, planning and implementation of the forest policy at the national and sub-national level.

Furthermore Burundi has ratified a number of international conventions on the conservation of natural resources including the Convention to Combat Desertification (CLCD); the Convention on Biological Diversity (CDB); the United Nations Framework Convention on Climate Changes (CCNUCC); the Convention on wetlands of international importance especially as waterfowl habitat or the 'RAMSAR Convention'; the Convention on International Trade of Endangered Species of wild fauna and flora (CITES); the Paris Convention on the protection of the world cultural and natural heritage; the African Convention on the conservation of nature and natural reserves; the Convention on the Protection of Vegetal among member states of the Economic Community of the Great Lakes Region Countries (CEPGL)and the Phytosanitary Convention for Africa.

Forest administration institutions

The Ministry of water, environment, land management and urban planning is in charge of forest policies formulation and hosts institutions of the Central Administration placed under the Minister. Public administrative institutions under the Minister's authority are the OBPE which is the forestry public body with expertise in the conservation of forests; and the General directorate of forests and environment responsible for the implementation of forest laws.

3.4. Mining Resources

Distribution

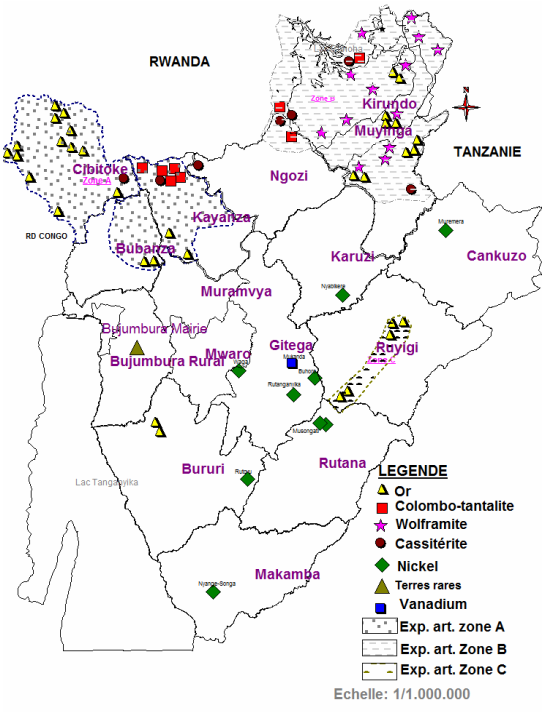
Burundi is endowed with important mineral resources. The country has many sites with great quantities of Gold, Nickel, Coltan, Cobalt, Phosphate rock, Quartzite and rare reserves of Uranium (Ntiharirizwa, 2013; Yager 2015).

However mineral resources are inequitably distributed throughout the Burundian territory (Figure 4), some being almost unexploited due to low level of extracting technology through artisanal methods and a less structured system which is much more complicated by the absence of transformation tools, inadequate electricity supply and transport infrastructures.

The mining sector is not well regulated and is largely informal. The minerals exploited are gold, colombo-tantalite (coltan), cassiterite, and wolframite. In accordance with Extractive Industries Transparency Initiative (ITIE-EITI, 2014) feasibility study report, some licenses for research do exist for nickel, rare soils, gold and hydrocarbons.

Tables 2 and 3 indicate the status of activities on the following different indicators: mineral, location, tonnage (reserves), concentration, and observation.

Figure 4: Location of traditional mining sites in Burundi for metallic sectors



Source: Midende (2010)

Legal framework- Mining Sector

In general, Burundi's mining sector is governed by at least 8 legal and regulatory texts which include the following:

1) The law n°1/21 of 15 October 2013 establishing the mining code of Burundi;
2) The law n°1/24 of 10 September 2008 establishing the investment code of Burundi
3) The law n° 1/008 of 1st September 1986 establishing the land code of Burundi
4) The law n° 1/010 of 20 June 2000 establishing the environment code of Burundi;
5) The law n° 1/015 of 11 August 2000 determining the particular provisions related to posts for exploitation, purchase and export of minerals traditionally extracted or imported;
6) The decree n° 1/40 of 18 December 1991 amending the regulation on technical and administrative management of quarries in Burundi;

7) Ministry Order n°760/540/1758/2013 establishing the administrative and fiscal conditions for the grant and renewal of authorization for prospection, license for research, license for traditional exploitation and approval of trading posts of minerals artisanally extracted in Burundi ;

8) The Ministry Order n°760/540/770/1757 determining the annual contribution for the rehabilitation of artisanal exploitation sites of minerals, quarries as well as trading posts of artisanally exploited minerals signed on 26 December 2013.

Table 2: **Metallic mineral resources in Burundi**

Name of mineral	**Location**	**Tonnage**	**Concentration**	**Observation**
Lateritic Nickel	Musongati-Rutana	180 MT	1.62 Ni%	Feasibility study
	Nyabikere-Karuzi	46 MT	1,45 Ni%	Feasability study
	Waga-Gitega	35 MT	1,38 Ni%	Feasability study
Sulfite Nickel	Muremera-Cankuzo	Evaluation undergoing	-	1 license for research
	Rutovu-Bukirasazi-Buhoro (Bururi-Gitega)	Evaluation undergoing	-	1 license for research
Vanadium	Mukanda-Gitega	9,5 MT m. primary 2,1 MT m. Secondary	0.38 Ni% 1.38 Ni%	Pre-feasability completed 1 license application
Gold	Provinces Cibitoke, Bubanza, Kayanza, Muyinga, Kirundo, Ruyigi, Bururi	Evaluation undergoing	-	4 licenses for research Traditional exploitation
Cassiterite, Colombo-tantalite, Wolframite	Provinces Cibitoke, Bubanza, Kayanza, Muyinga, Kirundo	Evaluation undergoing		1 license application Traditional exploitation
Rare soils	Gakara-Bujumbura, Minago-Bururi	5,000 T Evaluation undergoing	-	2 licenses application
Hydrocarbons	Rusizi basin, Basin of Lake Tanganyika	Evaluation undergoing	-	2 licenses application

Source: Ministry of Mine and Energy (2014): Annual Management Report of mines and quarries

Table 3 : Non metallic mineral resources in Burundi

Name of the mineral	**Location**	**Reserves**	**Concentration**	**Observation**
Phosphates	Matongo-kayanza	270 000 T	14.9%P_2O_5	Unexploited
Carbonatite	Matongo-Kayanza	9.44 MT	45.19% CaO	Unexploited
Kaolin	Mvumvu-Kayaza Vyerwa-ngozi	2.7 MT 632 MT		Fine ceramics
Quartzite	Mukinya-Ngozi	5.13 MT		Fine ceramics
Feldspaths	Kanyaru-Haut-Kayanza	0.73 MT on a small lode		Fine ceramics
Peat	Nyamuswaga, Ndurumu, Buyongwe, Nyavyamo	36 MT	11% of humidity	Exploited 10 000t/an
Calcareous	Cibitoke-Busiga (Ngozi)	2.2MT	40.32% Cao 2.2% MgO	Unexploited
Building materials (quarry,gravels, sands, limestones, clays, lateritic, freestones, etc	Everywhere in the country	Abundant		Traditional exploitations throughout the country

Source: Ministry of Mine and Energy (2014): Annual Management Report of mines and quarries

Mineral administration institutions

Ministerial departments and governmental institutions in charge of the mining sector are also multi-sectoral, that leads to a problem of coordination. Indeed the Ministry of energy and mines, the Ministry of water, environment, land management and urban planning, the Ministry of home affairs, the Ministry of public security, the Ministry of public health and ffight Against Acquired Immuno-Deficiency Syndrome (AIDS), provincial, communal and local administrations as well as land owners. Some overlapping functions between two or more institutions may be highlighted by analysing deeply the mandate of these different institutions with regard to the mining sector.

CONCLUSION

Burundi used to be among the first countries in the Eastern African sub-region to adopt a land policy in 1986. However, the diversity of actors and institutions intervening in the management and administration of the land in Burundi is challenging: a blur and juxtaposition of competence defined in the legal and regulatory framework. The respective attributions of different actors are then not clearly defined and do not allow coordinating and optimizing interventions. In such way, existing education programmes related to land are involving many Faculties and Departments of the main university (University of Burundi) as well as Faculty of Science (Biology Department, Earth Sciences Department), Faculty of Agronomy & Bio-Engineering, Faculty of Humanities and Social Science (Department of Geography), Faculty of Engineering Sciences, Faculty of Law,…

The key strategy in human and institutional capacities building in the area of land and natural resources ought therefore to address the coordination of the several actors in each of the four sectors that are interrelated as discussed above. It is also important to seek support of different partners and stakeholders around the region and beyond towards a specific teaching/training and research programme dedicated to the land sector such a unique Programme of Land Administration at University of Burundi as a trans / inter /multi-disciplinary programme.

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