

Public Policy of the Republic of Guinea

Nankouman KEITA

Department of Political and Legal Sciences in Public Law specializing in public management at HUBEI
UNIVERSITY in Wuhan China

Abstract

Under the UNFCCC, climate change is defined as climate change that is attributed directly or indirectly to human activity, modifies global atmospheric composition, and adds to the natural variability of climate observed over comparable time periods. This definition is different from that of the IPCC, which says that climate change refers to any change in climate whether it is human or natural. Vulnerability is the degree to which a system is sensitive to the adverse effects of climate change, including climate variability and its extremes. It is a function of the nature, magnitude and rate of the climate change to which the system under consideration is exposed, the sensitivity of this system and its capacity for adaptation. Vulnerability is thus a function of physical and socio-economic characteristics. One of the characteristics of Guinea is the very marked contrast between the different natural regions in terms of socio-economic conditions, population density, rainfall and hydrological regimes, relief, soil distribution, and wildlife. Flora. The populations of these different zones are to varying degrees, exposed to poverty (53% of the population live below the poverty line), to variability and to climate change (droughts, floods, extreme temperatures, disruption of the rainfall regime, etc.). Guinea, as a party, is receiving support so that, like other least developed countries, lacking the capacity to address the proven vulnerability of its resources and socio-economic groups, it is preparing its NAPA. This work falls within this framework and aims to outline urgent and immediate adaptation measures, any delay of which will cause increased vulnerability or increased cost. The document produced is the National Action Plan for Adaptation to Climate Change PANA.

The document produced is structured as a foreword by His Excellency the Minister of Agriculture, Livestock, Environment, Waters and Forests, an introduction, five chapters, a conclusion, a list of bibliographical references and appendices. The first chapter provides the national context for NAPA: physical presentation, socio-economic aspects, and environmental constraints, institutional and legal framework. The second chapter deals with the NAPA framework. It outlines the climatic risks identified during the regional public consultation workshops, describes their consequences on means and modes of existence, and indicates their trend in the four natural regions. It establishes the vulnerability of socio-economic groups presents the predictable trends of each climate risk and ranks them in order of sensitivity. It shows the integration of NAPA into sectoral development policies and synergy with other multilateral environmental agreements. Finally, this chapter briefly presents the purpose, objectives and constraints of the implementation of the NAPA. The third chapter deals with basic needs for adaptation. Several options have been proposed by natural region. The in-depth analysis of these has allowed them to be grouped into thirteen adaptation options that have been weighted, prioritized and ranked according to six criteria including adaptability, coherence with local development plans, synergy with multilateral environmental agreements.

Keywords: Public Policy, Republic of Guinea

DOI: 10.7176/RHSS/12-11-03

Publication date: June 30th 2022

Introduction

Coming 178th (out of 187 countries) on the Human Development Index, the Republic of Guinea suffers from severe structural vulnerabilities, despite recent progress. The national poverty rate stood at 55.2% in 2012, meaning that 6.2 million Guineans were living below the poverty line. Around one child in every three was suffering from malnutrition in 2012. In short, few Millennium Development Goals (MDGs) are likely to be reached in 2015. Nevertheless, against a background of strong demographic growth (with the population doubling every 25 years), there is an urgent need to speed up and diversify economic growth to meet the present social challenges whilst not placing undue constraints on future generations. Sustainable development is therefore still a priority if the vital needs of the Guinean population are to be addressed. Moreover, the greenhouse gas (GHG) emissions of the Republic of Guinea are well below the global average.

The Republic of Guinea ratified the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol in 1993 and 2005 respectively. Since then, it has worked out strategies to combat climate change, including its Initial National Communication, on the basis of an inventory of greenhouse gases (GHG) taken in 2001 (based on emissions in 1994). A second inventory was taken in 2011 (emissions in 2000), but has not yet led to the submission of a new National Communication. Finally, the Republic of Guinea prepared its

National Adaptation Plan of Action (NAPA) in 2007 and undertook several projects to implement the plan. Guinea must now face up to two major challenges: lifting its people out of poverty and ensuring the country's

food security – with a population growing at 3% per year and expected to reach 18 – 20 million in 2030. Its ambition is also to move from the status of Least Developed Country (LDC) to that of Emerging Country by 2030, which means that GDP must grow by 5-7% per year. Bearing in mind these aims and population growth, Guinea's energy needs may well double in the space of 20 years. Consequently, assuming that practices and systems remain unchanged, the estimated annual emissions growth rate is +4.4%, i.e. slightly more than doubling every 20 years.

Have you had the efforts of the Government of Guinea regarding environmental policy?

In this subject, our analysis will focus on three aspects, namely need capacity and barriers in the field of environmental policy in the Republic of Guinea.

Guinea has particularly abundant natural resources, especially forests, meaning that it is considered as a carbon sink (Initial National Communication, 1994). In addition, more than 1000 watercourses and four of the major West African rivers rise in the country. These resources are under severe threat from the impact of climate change and regional population flows are likely to increase the pressure. Because of its geographical location, Guinea could become a refuge for people from neighboring Sahelian countries to the north, especially pastoralists who are more seriously affected by drought and changes in rainfall patterns. Moreover, Guinea is of great significance to the aluminum industry in the world, as it holds more than one third of the planet's bauxite reserves. For all these reasons and with a view to making the most effective contribution possible to its own and its neighbors' sustainable development, Guinea seeks to become a stabilizing influence in the sub-region by 2030, as a result of:

- preserving and enhancing its water resources;
- striving to keep its status as a carbon sink;
- exploiting its soil and sub-soil resources on a rational basis;
- Stimulating thinking at ECOWAS level with a view to greater consideration of climate change issues in the Regional Transhumance Plan.

There are several possible ways of achieving these aims, such as developing renewable energies, improving energy efficiency, reducing pressure on the forests through sustainable management of forestry resources and land, developing and improving farming and pastoral practices to cope with climate change, etc.

THE PROCESS OF PUTTING TOGETHER GUINEA'S INDC

The National Environment Department of the Ministry of Environment, Water and Forestry (MEEF) is responsible for coordinating the implementation of government policy on combating climate change and also deals with GHG inventories. The National Consultation Platform on COP21 (hereinafter PNC-COP21) was set up on the initiative of the MEEF to mobilize representatives of the State, technical departments, civil society and the private sector so that Guinea's voice could be heard, taking on board contributions from all relevant institutions and every level of society. Its objectives include the development of information and communication concerning COP 21 and raising the awareness of civil society and economic operators. It comprises a high-level (ministerial) segment and 11 thematic panels which helped to draw up the INDC.

ADAPTATION COMMITMENTS NEED AND BARRIERS.

JUSTIFICATION FOR THE INCLUSION OF ADAPTATION IN THE NEED AND BARRIERS

Promoting sustainable economic development that takes account of adaptation to climate change is key to anticipating impacts and thus being able to reduce the expense and damage they can cause. In this regard, it is vital to include Guinea's main adaptation challenges in the INDC, in order to draw the attention of the international community to the massive efforts that the country needs to make to cope with the negative impacts of climate change, as well as to shoulder its responsibilities in relation to the vulnerability of the West African sub-region. Guinea finalized its National Adaptation Plan of Action (NAPA) in 2007, having identified the following vulnerable sectors: crop and livestock farming; water; and the coastal and forest zone. The NAPA also helped to identify the groups most vulnerable to climate change in different regions of the country, including in particular poor communities in rural areas such as farmers and small producers (men and women) and people whose livelihood mainly depends on the use of natural resources (hunters, fishermen, salt producers, etc.).

Guinea has ratified the other two Rio conventions and put together national strategies to combat desertification and soil degradation, as well as conserves biodiversity. Implementation of these two strategies will also facilitate adaptation to climate change.

IMPACTS OF CLIMATE CHANGE

With its present favorable climate for agriculture (average annual rainfall of 1200 mm in the North and Northeast, 4000 mm in Conakry and up to 1800 mm in the mountains of Fouta-Djalon), Guinea is both exposed and sensitive to climate change and has very little capacity to adapt. The main impacts of climate change affecting the country include: i) an overall increase in average temperatures; ii) a drop in average annual rainfall especially

in North-West and North-East Guinea, together with a change in the frequency and intra-year distribution of precipitations; and iii) the rising sea level (around 80 cm by 2100). These new climate conditions could therefore have negative consequences for many different sectors. Nevertheless, even with altered rainfall patterns, Guinea should still continue to enjoy more favorable climatic conditions than its neighbors to the north and could become a more important transhumance destination for Sahelian herds than it is now, resulting in serious conflicts over land use.

CURRENT AND PLANNED COMMITMENTS

Guinea is both sensitive and exposed to climate change. Located at the gates of the Sahel, one of the regions of the world most affected by climate change, Guinea must quickly reduce its vulnerability for the benefit of both its own people and its neighbors the country include:) an overall increase in average temperatures; ii) a drop in average annual rainfall especially in North-West and North-East Guinea, together with a change in the frequency and intra-year distribution of precipitations; and iii) the rising sea level (around 80 cm by 2100). These new climate conditions could therefore have negative consequences for many different sectors.

Nevertheless, even with altered rainfall patterns, Guinea should still continue to enjoy more favorable climatic conditions than its neighbors to the north and could become a more important transhumance destination for Sahelian herds than it is now, resulting in serious conflicts over land use.

CURRENT AND PLANNED COMMITMENTS

Guinea is both sensitive and exposed to climate change. Located at the gates of the Sahel, one of the regions of the world most affected by climate change, Guinea must quickly reduce its vulnerability for the benefit of both its own people and its neighbors.

In order to deal with the local consequences of climate change – for which it actually bears no historic responsibility – the Republic of Guinea hereby undertakes the following commitments:

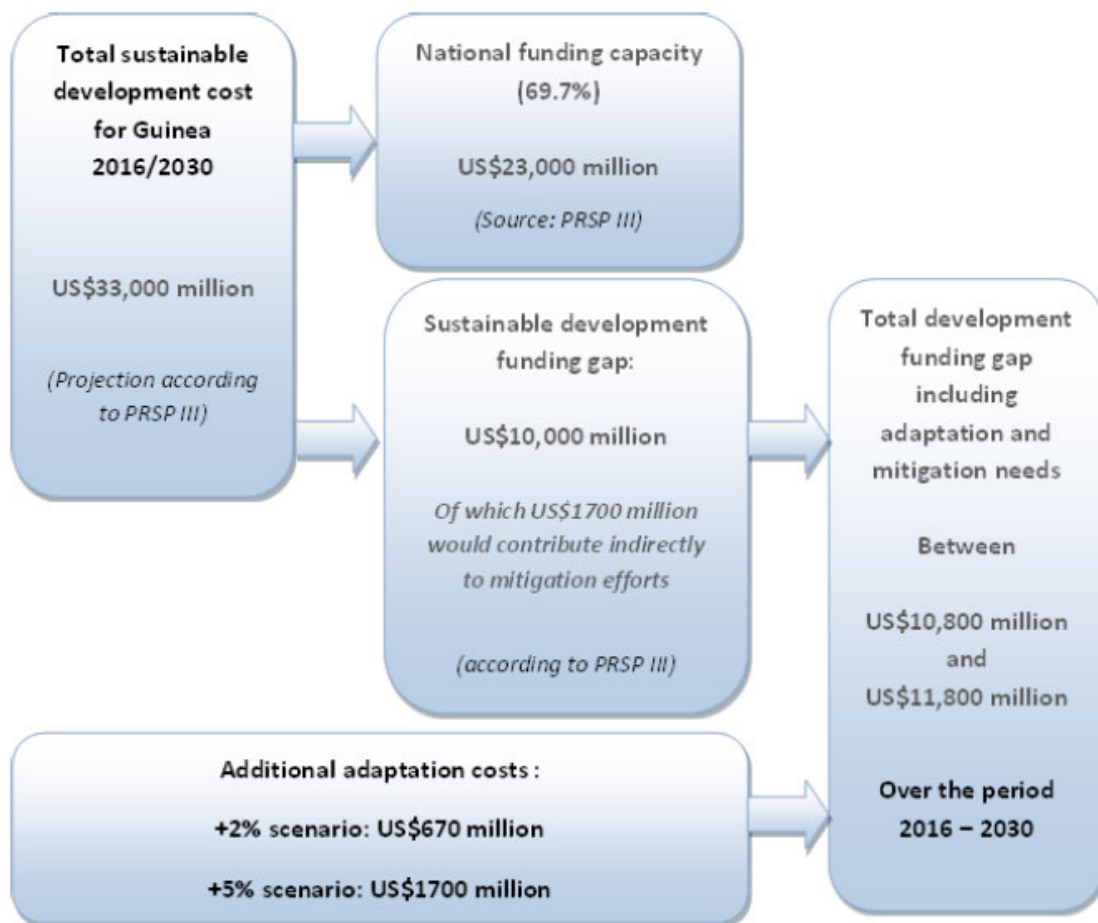
Commitment	Context and description of the commitment	Actions
<p>In order to deal with the local consequences of climate change – for which it actually bears no historic responsibility – the Republic of Guinea hereby undertakes the following commitments:</p>	<p>Guinea is considered as the "water tower of West Africa". Four catchment basins of key importance to the sub-region, particularly due to their potential in terms of economic development and maintenance of biodiversity, have their source in Guinea. As a result of climate change, the flow rate of watercourses will be reduced, possibly by as much as 50% of the current daily average by 2100. For example, the flow of the Niger River is likely to reduce everywhere by between 16 and 28% (sensitivity 2.5°C) and up to 23-54% (sensitivity 4.5°C). Given Guinea's strategic location upstream of the main West African catchment basins, choices in respect of water resource management will inevitably have impacts downstream, beyond the borders of Guinea. These international implications mean that Guinea has an even greater responsibility to manage its resources appropriately in the face of climate change.</p>	<p>Priority Actions:</p> <ul style="list-style-type: none"> - Preserve and restore the riparian forests at the spring heads and along the banks, in particular on cross-border watercourses; - Ensure the preservation of the banks and beds of national and transnational watercourses. - Seek alternatives to uses and offtake that are detrimental to water quality (brickmaking, dredging of riverbeds to obtain minerals, etc.); - Ensure that the climate change dimension is taken on board in the institutional and legal frameworks and by the organizations responsible for managing and developing cross-border catchment areas; - Set up a system of hydro-ecological monitoring of international rivers.
<p>Put in place the measures needed to protect, conserve and manage ecosystems, revive economic activities and boost the resilience of communities in its</p>	<p>The coastal zone is of strategic importance to Guinea. It is the country's leading economic area and holds around 38% of its population. It also plays a key role for the agricultural and energy sectors and accounts for 24% of national rice production. Potentially arable land on the coast amounts to 1.3 million hectares, including 380,000 ha under cultivation every year. Various cereal, fruit and vegetable crops and tubers are grown in the mangrove hinterland. More than 140,000 ha of</p>	<ul style="list-style-type: none"> - Update the Mangrove Management and Development Plan (SDAM) ; - Reduce the sources of mangrove degradation; - Include adaptation in local development plans and spatial planning tools; - Enhance scientific knowledge of

Commitment	Context and description of the commitment	Actions
coastal zone	<p>the 385,000 ha of mangroves currently in existence have been converted into rice paddies. As regards energy, the mangroves in the zone provide 60% of domestic energy for the capital and the main coastal towns.</p> <p>The coastal zone is particularly vulnerable to climate change due to the rising sea level and intensified coastal erosion, leading to adverse effects on fishery resources, the destruction of infrastructure in coastal towns and villages and the disappearance or salinization of the rice paddies.</p> <p>All these factors mean that the coastal zone is under extreme pressure from the economic activities being undertaken there; the anarchic urbanization that arises from the lack of a Coast Code and non-compliance with the Land Code; and the impacts of climate change.</p>	<p>the coast as a whole;</p> <ul style="list-style-type: none"> - Develop rice production by improving yields through use of varieties better able to cope with the impact of climate change (particularly ingress of salt water). - Extend the pilot initiatives already launched, especially the Increased Resilience and Adaptation to Adverse Impacts of Climate Change in Guinea's Vulnerable Coastal Zones (RAZC) project, to all the municipalities on the coast.
<p>Support the adaptation efforts of rural communities to develop agro-salvo-pastoral techniques enabling them both to continue their activities and preserve the resources on which they rely</p>	<p>Food security is not currently guaranteed in Guinea. The priority is therefore to increase production, despite the risk of falling yields as a result of the impact of climate change.</p> <p>Farming practices capable of ensuring sustainable management of land and water resources and limiting GHG emissions are to be encouraged.</p>	<p>Food security is not currently guaranteed in Guinea. The priority is therefore to increase production, despite the risk of falling yields as a result of the impact of climate change.</p> <p>Farming practices capable of ensuring sustainable management of land and water resources and limiting GHG emissions are to be encouraged.</p> <p>schemes;</p> <ul style="list-style-type: none"> ● Development of techniques to conserve and process agricultural, forestry and fish-farming products; ● Better management of pastoralism, especially transnational pastoralism, so as to limit degradation of grazing and soil and reduce the risks of usage conflicts.

GAPS, BARRIERS AND NEEDS

The Republic of Guinea faces considerable socio-economic challenges in addition to the current and future impacts of climate change. Four main barriers to meeting these adaptation needs have been identified:

1. The huge costs of adaptation, coming on top of the funding gap in respect of vital development and poverty reduction needs (source: Poverty Reduction Strategy Paper 2013-2015 – DRSP-III). Funding needs for adaptation (in addition to development funding needs) are estimated at between US\$670 million and US\$1700 million. The success of international efforts to keep global warming below +2°C would of course help to reduce the impacts and related costs.



By way of example, the total cost of the "Mano River Union Ecosystem Conservation and International Water Resources Management" project amounts to US\$31 million over five years. Funding needs for the water resources commitment alone could therefore amount to around US\$300 million for the three international catchment basins over the period 2015-2030.

2. Gaps in terms of reliable, robust climate data as well as all statistical data relating to natural resource management;
3. Inadequate integration via government institutions and local authorities of the adaptation dimension in development planning;
4. Obsolescence of, and failure to comply with, spatial planning schemes.

MITIGATION COMMITMENTS

JUSTIFICATION FOR THE REFERENCE YEAR, COMMITMENT PERIOD AND SECTORS COVERED

Guinea issued its Initial National Communication to the UNFCCC on the basis of data from 1994. That year was therefore considered as a benchmark and all the GHG emission results have been extracted or extrapolated from the data in that document.

Furthermore, for the energy sector, full use has been made of the data for the years 2011 – 2014 produced by the *Sustainable Energy for All* (SE4ALL, 2014) program, which sets targets for 2030.

For the sake of simplicity and clarity and in line with the objectives of the PRSP III, emissions avoided by means of SE4ALL activities have been assessed over the period 2015-2030.

The inventory of greenhouse gases made for the Initial National Communication (based on emissions for 1994) shows that the **energy**, **land-use change and forestry** (LUCF) and **agriculture** sectors are the main emitters. As they therefore represent a strategic priority for Guinea in terms of mitigation, they have been included in the INDC.

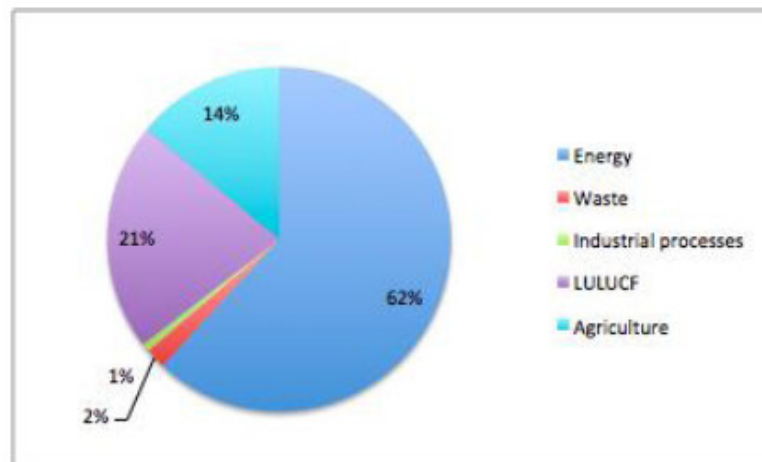


Figure: GHG emissions balance sheet according to the INC, excluding GHG sequestration (1994 data)

The absence from this INDC of commitments relating to the "industrial processes" and "waste" items is due to the fact that:

- these sectors have, according to the assessments made (Initial National Communication, work on the Second National Communication), **much lower emissions than the others**, bearing in mind emission calculation methodologies and the unstructured nature of these sectors;

- collection and treatment of rubbish and wastewater is still very limited, despite the importance to the population of this sector in terms of environmental preservation, quality of life and health. Nevertheless, in view of projected demographic growth which will affect the level of emissions from the waste sector, Guinea's national contribution could, when next revised, include this sector on the basis of better knowledge of the respective emissions through the establishment of appropriate facilities and management procedures.

The 1994 INC takes account of the following trends (continuing through to 2030):

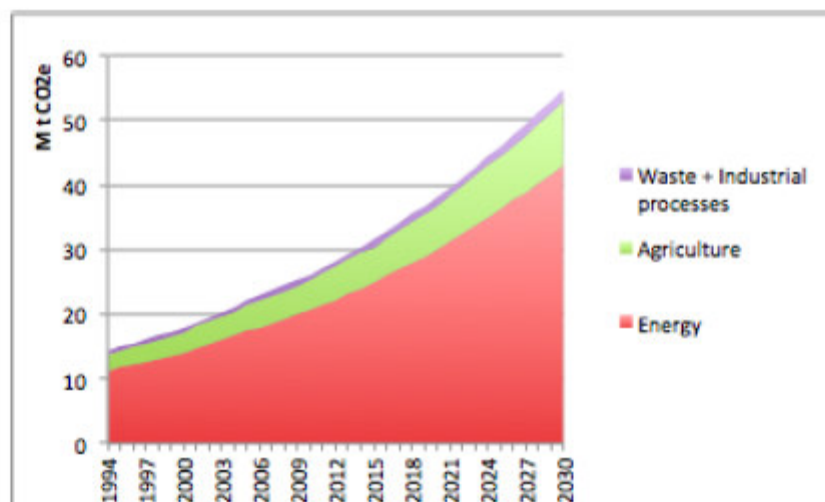


Figure: Guinea's projected emissions (excluding LUCF) (source: according to 1994 INC)

The emissions growth rate is taken as 4.4% per year over the period, with emissions rising from 2.1 to 2.7 tons CO₂eq per capita. In total, that would mean a doubling over 20 years and emissions of some 55m tons CO₂eq in 2030.

THE LEGAL INSTRUMENT FOR THE PROTECTION OF ENVIRONMENTAL CAPACITY

LEGISLATION: THE BROAD PICTURE

This legislative review focuses on statutory property rights to natural resources in order to bring into PRADD analysis the full range of legislated rights and restrictions that may apply in alluvial diamond mining areas and particularly those that might be relevant to artisanal diamond mining operations. However, it is useful to

progress toward a specific focus on property rights having first gained an appreciation of the overall NRM legislative and policy landscape. This introductory section is intended as a wide-angle snapshot with the objective of developing the NRM statutory context prior to zooming in on the specific topic of property rights. The following is a non-exhaustive list of current environmental legislation, or of legislation that substantially impacts environmental management. It should be noted that most of the items below are placed at the high end of the statutory pecking order, and in most cases a significant stream of “application texts” has also been (or is also being) developed to clarify and implement the “codes.”

1. Water Code – Loi L/94/005/CTRN Portant code de l’eau – 15 février 1994.
2. Forest Code – Loi L/99/013/ AN du 22 juin 1999 portant code forestier .
3. Forest Code application texte - Projet de décret d’application de la Loi L/99/013/AN du 22 juin 1999.
4. Agricultural Policy: Politique Nationale de Développement Agricole: Vision 2015.
5. Pasture Management Policy: Loi L/95/51/CTRN DU 29 Août 1995, Portant code pastoral
6. Environmental Protection – Code de la protection et de la mise en valeur de l’environnement, Ordonnances N°045/PRG/87 et N°022/PRG/89 .
7. Wildlife protection and hunting regulations: Loi L/99/038/AN Adoptant et promulguant le code de protection de la faune sauvage et réglementation de la chasse.
8. Mining code: La Loi L/95/036/CTRN du 30 juin 1995 portant “Code Minier” de la République de Guinée .

In addition to legislation, Guinea has developed and adopted a number of strategic policies and action plans targeting the management of natural resources. Guinea developed a national forestry policy in 1989, followed by the adoption of a national forestry action plan in 1990, a national environmental action plan in 1994, a national strategy for conservation of biological diversity and sustainable use of resources in 2002, and a national action plan to combat desertification and drought in 2006.¹⁰ Each of these statutes and action plans prioritize environmental protection and sustainable use of natural resources. The natural resources policies, action plans, and legislation are implemented by an ever-shifting array of technical agencies.¹¹ In 1986; Guinea established a Ministry of Natural Resources, Energy, and Environment. Following a restructuring in 1993, a Ministry of Energy and Environment emerged. In 1996, the “Environment” was housed in the Ministry of Mining and Geology. In 2004, Guinea created the more specialized Ministry of the Environment. In 2007, the “Environment” moved to the Ministry of Agriculture, Livestock, Environment, Water, and Forests. Most recently (less than two weeks before the present document was drafted), on August 1st, 2008 Guinea created the Ministry of Sustainable

Development and Environment, In view of the above, it is not surprising that Chamois et al. makes the following observation: “According to the EU’s 2004 assessment of Guinea’s environmental management, recurrent institutional problems are responsible for the government’s inability to implement its National Environment Action Plan, created in 1994. In addition to frequent institutional changes, a number of sectoral ministries (agriculture, livestock, and environment) have independently developed environmental strategies and action plans. Unfortunately, these plans are developed in isolation, and a lack of coordination among ministries makes it very difficult to establish who is responsible for what.”¹² Based on the preceding, our first general observation regarding the mass of NRM and environmental legislation in Guinea is that there appear to be immense difficulties in implementing it.

The second general observation is that the policies are quite progressive in terms of marrying environmental concerns with local development. Regarding the forest code adopted in 1999, Catterson et al. note:

“This new law explicitly recognized the need to engage the rural population in a participatory Management process for both classified and community forests. Among other things, this

Legislation calls for the transformation of forest service agents from enforcers to advisors. It

Also recognizes the need for forest management plans (development plans) to be prepared in collaboration with the local population. A forest management plan should balance the

Socioeconomic needs of the population with the need to protect resources, thus having both production and protection objectives. A similar assessment that goes beyond the forest code in addressing the entire body of environmental legislation is found at a United Nations Development Program (UNDP) website: “A common element across Guinean legislative texts that address environmental protection is a tendency to favor giving responsibility to local populations so that they can manage their own environment. Several types of popular participation are encouraged: associations, local collectives, informal groups, or simply citizen It should be noted that the policy tendency toward shifting responsibility toward local populations as a formula for achieving sustainable development extends beyond the strictly speaking

“Environmental” legislation. It includes such examples as the rural land policy addressed in a

Preceding section of this paper, the decentralization law of 2006, and the agricultural policy adopted in July 2007.

- LEGISLATION: KEY PROVISIONS AND PROPERTY RIGHTS

Forest code (Loi L/99/013/ AN du 22 juin 1999 portant code forestier):

The basic property rights structure regarding vegetative resources is defined in terms of the “forest domain” and its sub-domains. The “forest domain” consists of all areas containing vegetation that is not directed toward agricultural production or environmental restoration (Article 16). The forest domain is divided into:

- The state forest domain;
- The forest domain of local collectives, districts, and villages;
- The private forest domain; and
- The non-classified forest domain.

The state forest domain consists of classified forests and parks and is clearly the property of the state (Article 18). Likewise, the forest domain of local collectives consists of forests that have been designated as such (by decree), and are the property of the collectives (Article 19). Collectives are legally established bodies of government, particularly including urban communes and rural development communities (CRDs). The private forest domain is also defined by legal texts that assign property rights to specific individuals or associations (Article 20). Finally, the non-classified forest domain consists of the remainder of the “forest domain” (as defined above) that is not included in the above categories (Article 21).

Although statistics are not currently available to PRADD/Guinea, our belief is that the vast majority of the forest domain—probably including much or most of the forested areas found in diamond mining areas.

– Consists of the fourth of the above-defined sub-domains, i.e., the non-classified forest domain. However, each of the other sub-domains may also be present in the same zones.

It is important to note that the areas subject to each of the legal categories described above are not static.

Article: 23 of the forest code establish a “forest classification commission” in each prefecture, which suggests that areas within the non-classified domain are potentially candidates for classification. The legal status of a given area should be verifiable since a forestry cadaster is maintained by the ministry in charge of forests and includes all legal documentation that establishes the three legally established domains noted above (Article 31).

Whatever the legal classification of the various parts of the general forest domain, exploitation of forest resources is subject to detailed regulations. Exploitation of a defined area within the state forest domain may be conducted by a third party who has been awarded a “forest management contract” (Article 35), or by a state agency that holds a permit based on a legal ministerial order (Article 38). In either case, the details of the contract or permit conform to a management plan that has been developed to achieve both environmental protection and socioeconomic goals (Articles 33 and 39-41). The management plan in turn must conform to the classification decree (Article 40).

Similar to the state forest domain, the forest domain of local collectives, districts, and villages may be exploited by a third party based on a forest management contract. As is the case for state forests, such contracts must conform to management plans approved by the ministry in charge of forest management. Article 52 states that the exploitation of private forests must conform to regulations included in an application decree of the forest code. PRADD/Guinea has not yet obtained this application decree. Turning to the largest of the legal categories of forests, the non-classified forest domain, one notes that there are comprehensive controls over the forest products market. All marketing of forest products harvested in the non-classified forest domain is managed by the ministry in charge of forests, with prices being established by joint ministerial orders from the ministries of forests and finances (Article 54). Regarding production and harvesting, the non-classified forest domain may be exploited, subject to a cutting permit which specifies the quality and quantity of trees to be exploited (Article 55), or by a forest management contract (Article 56). The clearing of forests to establish agricultural fields, or to expand existing ones, is subject to the acquisition of a clearing permit (Article 74). The forest administration has the right to delimit the forest domain, and to forbid the granting of clearing permits within the established limits (Article 75). In summary, where established, property rights to forest resources

– Whether private or central or local government—are subject to the conditions established in a government-approved forest management plan. In addition, all land owners and managers are required to take active measures to fight against bush fires (Article 84). These measures include the establishment and preparation of a specialized team, the creation of observation posts, and the establishment of fire breaks. Finally, the forest code confirms customary use rights of forest products, based on “traditional” use patterns, provided they do not involve any commercialization of the products (Article 94). Such rights depend on regeneration capacity and may be suspended as necessary by the minister in charge of forests (Article 97). However, such a suspension gives rise to a right of compensation for the customary user of forest resources (Article 97).

Pastoral Code (Law L/95/51/CTRN from August 28, 1995, wearing Pastoral Code): “Natural pastures” consist principally of the portions of the forest domain that provide pasture resources, as well as fallow or post-season crop lands (Article 7). Although subject to environmental protection considerations, as well as to the permission of the property owner in the case of fallow agricultural lands, these areas are open to the pasturing of livestock (Articles 10-12).

Water code 15 (Law L/94/005/CTRN wearing water code -February 15, 1994).

Water resources in Guinea are included in the “natural public domain” of the state (as defined in land law) and cannot be appropriated by private entities (Article 4). However, specific uses of water resources may be authorized on a temporary and limited basis (Article 4).

All individuals have an inalienable right to the use of water to satisfy personal needs (Article 6). This right should be exercised in view of conservation needs as well as the needs of other water users (Article 6). Any non-personal use of water requires a permit or concession (Article 7).

Article: 26 of the water code require that prior authorization be obtained from the ministries of hydraulics and transportation in order for any construction to be completed in a navigable waterway or flood plain. Article 27 forbids any action that would endanger dikes and protective structures, such as the extraction of soil or other disturbance of the dike.

Wildlife and hunting code (Loi L/99/038/AN Adoptant et promulguant le code de protection de la faune sauvage et réglementation de la chasse). While recognizing hunting rights, this code targets the sustainable harvest of wildlife resources and the conservation of natural habitats. Environmental protection Law (Code de la protection et de la mise en valeur de l’environnement, Ordonnances N°045/PRG/87 et N°022/PRG/89). This law seeks to combine protection of the environment with sustainable development of natural resources (Articles 1 and 5). At a level of generality that includes the entire “environment” (defined as all natural and artificial elements engaged in interaction with the activities of humans and all living organisms – Article 2), property rights are shared at two levels: “the Guinean environment constitutes a national patrimony which is an integral part of the universal patrimony” (Article 4).

Mining code (La Loi L/95/036/CTRN du 30 juin 1995 portant “Code Minier” de la République de Guinée). The Guinean mining code is presented at length in a PRADD/Guinea policy review of mining legislation. The key property rights provisions establish all in-the-ground minerals as state property that can be privatized upon harvest based on detailed mining agreements, concessions, or permits.

Decentralization law (Law bearing the Code of Local authorizes of Republic of Guinea), Decentralization law defines the legal regime and rights of local collectives, defined in article 2 as Urban Communes and Rural Development Communes. These decentralized collectives are legal entities possessing their own resources and property. The property of a collective is composed of two domains, referred to as the public domain and the private domain (Article 37). The public domain includes lakes, streams, and subterranean water sources; and local public forests and tourist sites, as well as “collective land reserves” (Article 38). The private domain includes patrimonial resources including, presumably, land holding (article 41).

Conclusion

We can no longer ignore the fact that the world's climate is becoming more unpredictable and more extreme. As water levels rise, the risk of flooding looms large. At the same time, periods of drought are becoming longer and more frequent. Yet, our most precious resource—our planet's biosphere – is not only under threat. It is also the source of many of our solutions. Green Climate Solutions is the Wageningen Environmental Research program that applies our understanding of nature and natural processes to address the challenges of climate change.

Wageningen Environmental Research develops user-driven solutions to climate challenges for policymakers, local authorities, the financial and agricultural sectors, and rural and urban planners. Our climate services experts provide the information needed for long-term strategic planning and to build business models for the transition to sustainable, low-carbon economies.

Wageningen Environmental Research is constantly working on ways to make agriculture more climate-smart. We assist governments, agencies and farmer groups to identify and implement solutions so they can improve water availability and optimize water allocation and saving practices. We offer urban planners tools to design sustainable water management strategies, so that cities become safe, healthy and pleasant places to live. And as governments widen the search for low-carbon energy sources to mitigate climate change, we devise creative solutions.

REFERENCES AND LEGISLATION

REFERENCES

- Atkins International, Environmental profile of Guinea, final report for the, Commission Europeans, September 2007.
- Catterson, Thomas M. et al, Programmatic Environmental Assessment of Co-Management of Reserved Forests in Guinea, Prepared for United States Agency for International Development (USAID)/Guinea, June 2003.
- Chemonics et al, Guinea Biodiversity and Tropical Forests 118/119 Assessment, EPIQ IQC: EPP-I-00-03-00014-00, Task Order 02, December 2007.
- Food and Agriculture Organization, Cadre politique, légal et institutionnel du secteur forestier: Information's de base at the internet address: <http://www.fao.org/forestry/media/14177/0/77/>.

International Crisis Group, periodic reports available at, <http://www.crisisgroup.org/home/index.cfm?id=1236>.
Land Policy Initiative: A Framework to Strengthen Land Rights, Enhance Productivity and Secure Livelihoods: Regional Assessment on Land Policy in West Africa, Ouagadougou, Burkina Faso, 15 – 18 April 2008.
Ouédraogo, Hubert et al. Comparative study of the implementation of rural land plans in west Africa : Benign, Burkina Faso, Ivory coast, Land Net West Africa (Ouagadougou), January 2004. United Nations Development Programme, Le PNUD in Guinea, with the following address:
<http://www.gn.undp.org/energie/environnement2010.htm>

CURRENT LAND AND NATURAL RESOURCES LEGISLATION IN GUINEA – PRINCIPAL STATUTES

1. Land Law – Ordinance 002/92/019 of March 30, 1992 on the land and state code.
2. Rural Land Tenure Policy – rural land Policy statement, 2001.
3. Decentralization Law – Law wearing Code of local authorities in the Republic of Guinea
4. Water Code – Law L/94/005/CTRN wearing water code February 15, 1994
5. Forest Code – Law L/99/013/ AN/ of June, 22 1999 wearing Forest code.
6. Forest Code application text – Draft law enforcement decree L/99/013/AN of June, 22 1999 (2005).
7. Agricultural Policy: National Agricultural Development Policy: Vision 2015
8. Pasture Management Policy: Law L/95/51/CTRN of August 29, 1995, wearing pastoral code
9. Environnemental Protection –Environmental protection and Enhancement code Ordinance N°045/PRG/87 et N°022/PRG/89
10. Wildlife protection and hunting regulations: Law L/99/038/AN Adopting and promulgating the code for the protection of wild fauna and the regulation of hunting.
11. Mining code: The Mining Code: The Law L/95/036/CTRN of June 30, 1995 wearing “Mining Code in the republic of Guinea.

WEBSITE

<http://www.gn.undp.org/energie/environnement2010.htm>. The original French text is as follows:

An element common to the texts.

Legislative guinea.

WWW.usaid.gov

<http://www.fao.org/forestry/media/14177/0/77>

<https://www.undp.org/content/undp/en/home/sustainable-development-goals/>.

<http://gouvernement.gov.gn>.

<http://meef.guinee.org/wp>.

<https://www.undp.org.gn>.

List of major conventions and international treaties signed and ratified by Guinea relating to the Environment. The list below gives some illustration.

The Vienna Convention for the Protection of the Ozone Layer (concluded at Vienna on 22 March 1985) .Date Entry into force: 22 September 1988.

Date of signature / Ratification by Guinea: 22 June 1992.

Convention on the Protection of the Ozone Layer International Trade in Endangered Species and Wild Fauna and Flora or Washington Convention sometimes referred to as CITES (Convention on the International Trade of Endangered Species).

Date of entry into force: 3 March: 1973.

Date of Signature / Ratification by Guinea: 1989.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes (concluded at Bale on 22 March 1989).

Entry into force May 5, 1992. Date of signature / Ratification by Guinea: April 16, 1995.

United Nations Framework Convention on Climate Change (concluded in New York on 9 May 1992).

Entry into force 12 June 1992. Date of signature / Ratification by Guinea 7 May 1993.

Rotterdam Convention on the Procedure for the Protection of prior consent with knowledge of cues applicable in the context of certain hazardous chemicals and pesticides in international trade (Rotterdam 10/09/1998).

Date of entry into force 24 February 2004.

Date of signature / Ratification by Guinea 7 September 2004.

Stockholm Convention on Persistent Organic Pollutants (POPs); concluded in Stockholm on 22/05/2001.
Entry into force 17 May 2004.

Date of signature / Ratification by Guinea: signed by Guinea on 23 May 2001, ratified by Law L / 2005/022 / AN of 22 November 2005.

African Convergence Convention on Nature and Natural Resources: Adopted in Algiers on 15 September 1968 by the OAU Member States. It has registered 40 signatures and the deposit of 30 instruments of ratification.

Date of entry into force: 16 June 1969.

Date of signature / Ratification by Guinea: 15 September 1968.