



Urban extension in periurban state protected forests: case of the mont-korhogo classified forest (Côte d'Ivoire)

Andon N'Guessan Simon¹, Alla Kouadio Augustin², Koffi Simplicie Yao³

^{1, 2, 4} Lecturer-Researcher, Master-Assistant Professor, UFR Social Sciences, Department of Geography, Peleforo Gon Coulibaly University, Korhogo, Côte d'Ivoire

Abstract

Ivorian protected forests are initially perceived as a territory but a territory containing resources, and it is to one or other of the titles that they are coveted. This gives rise to strong anthropogenic land pressures in a context of urban extension. Thus, part of the listed forest of Mont-Korhogo, peri-urban protected forest was urbanized. How are protected forest lands urbanized? Is this a strategy of re-appropriation of the territory of this forest protected by the indigenous populations? The objective of this research is to understand why a protected forest supposed to be free from all human activities, is partly urbanized. The triangulation of methods (direct observations, collection and processing of primary data, and analysis of secondary information) through surveys, field surveys (geopositioning), shooting, satellite images and documentary research was carried out. The results show that the urbanized portion of the protected forest was parceled out in the absence of state authority during the crisis (2002-2011). It was carried out with the aim of relocating indigenous populations of the village of Sonzoribougou who did not obtain any lots after the subdivision of the said village through the urban extension of the city of Korhogo. In other words, it is the individualization (subdivision: modernization) of community lands (belonging to families and / or communities) that is at the origin of this situation. But with the approval and the viabilisation of this space by the State, is not this another form of reappropriation of this protected territory by the indigenous populations after that of the Cocody district?

Keywords: Periurban protected forest, urban extension, Korhogo, North Ivory Coast

1. Introduction

Deforestation is not a new phenomenon. For more than half a century, the dramatic and spectacular setback suffered by the rainforest has been and continues to be the subject of numerous studies both on a global scale and at regional, national or local scales (Roche and De Koninck, 2002: 1). The extent of primary forests continues to decrease, although clear changes have been observed over the past 25 years. The rate of forest loss has dropped by 50% in Europe and Asia (FAO, 2015: 9) ^[12]. In Africa, on the contrary, the area of forests continues to decrease at alarming rates.

In Côte d'Ivoire, there is general deforestation including protected state forests. As in all West African countries, Côte d'Ivoire has been marked since the early 1960s by major changes in its environment which have resulted in a decrease in forest areas (Brou and Chaléard, 2007: 65) ^[7]. The Ivorian forest, which has represented 16 million hectares since 1900, is today less than 2.5 million hectares (RCI, 2016: 16) ^[19]. Protected areas were the subject of several anthropogenic pressures from neighboring populations, but the politico-military crises unleashed in 2002 and enshrining the partition of the country will remove several other protected areas from state control. Hence an aggravation of the human grip on the latter (Sangne *et al.*, 2015: 2). However, according to De Koninck *et al.* (1994) quoted by Andon (2010: 32) ^[11], "all forests, whatever they are, must first be conceived as a territory but a territory containing resources, and it is to one or the other of the titles that they are coveted". This very often leads to contradictory and conflicting interests between the

stakeholders of protected forests (State, private, environmental movement, local communities and local indigenous populations). This situation is more frequent between public authority and local communities of state-owned protected forests and generally relates to land ownership issues. This is why Côte d'Ivoire has adopted legislative and regulatory texts on land, including rural, urban and forestry, in order to promote economic development and preserve social peace and natural resources for present and futures (RCI, 2016: 11, 14) ^[19]. However, the implementation of rural, urban and state-owned forest land management reveals contradictions and shortcomings linked on the one hand to the existence of a multitude of public institutions whose means and objectives are not coordinated and on the other hand to the resistance of collective memories of property and territorial representation by the indigenous populations. This still creates numerous disputes and conflicts between individuals, between rural and urban communities, between the State and communities, between local authorities and communities, etc. (Same: 14). Indeed, land constitutes an important capital to ensure investment and the development of agro-economic and mining activities, and also to meet the growth needs of cities which are experiencing a rapid increase in their populations (Ibid.). The latter is carried out in order to respond to situations of glaring deficits in housing and basic infrastructure.

Thus the Classified Forest of Mont Korhogo (MKCF), a protected peri-urban state forest in Korhogo, at the same time considered as a land which conceals resources of

biological diversities, is subjected to anthropic pressures of which the main one is the urban extension from the town of Korhogo. We note, in fact, that a part of the MKCF, peripheral to the town of Korhogo, has been urbanized. This situation shows that we are facing a problem of intrusion of urban sprawl in the MKCF. This raises the question of how is state-protected forest land urbanized? Is it a strategy of reclaiming the territory of this forest protected by the indigenous populations? This research would like to examine the causes of the urban extension of Korhogo in a protected peri-urban state forest in the savannah region in the North of Côte d'Ivoire and analyze the underlying reasons which motivated this situation in order to understand the societal and land factors that comes into play.

2. Methodology

The methodology relates to the triangulation of methods notably documentary research, field investigation and direct observation with shooting (analysis of secondary information; collection and processing of primary data; and direct observations) through documentary research; surveys, land surveys (geopositioning) and shots. Each of these methods will be developed after the presentation of the study area.

2.1 Presentation of the study area

The Gbon district is a recent district located north of the Municipality of Korhogo and within the southern part of the Classified Forest of Mount Korhogo. It is part of the last urbanized part of the Classified Forest of Mount Korhogo with Ouanwonvogo after that of the Cocody district in the 1990s. Indeed, to fill the housing deficit in a context of insufficient space in the North of the Municipality of Korhogo, three subdivisions were made in the Classified

Forest of Mount Korhogo before and after the year 2002 thus depriving the forest of 341.88 hectares (Andon *et al*, 2018: 235) [2]. This district has the geographic characteristics (relief, climate, vegetation, fauna, and population) common to the town of Korhogo. The relief is characterized by a vast set of plateaus, surmounted in places by a few isolated elevations, made up of granite domes and hills. The climate is characterized by a tropical Sudano-Guinean climate, marked by two main seasons, a rainy one which extends from May to October, a dry one, from November to April. As for the vegetation, it consists of grassy savannahs and trees. The animal biological diversity is made up of, among others, antelopes (*Gazella spp*), *Canis spp*, *Python* while that of plants, we find the *Acacia Auriculiformis*, *Daniella Oliveri*, *Tero Carpus Erinacius* which is used to make balafon, the *nééré*, tamarind, shea, etc. The population of Korhogo, which amounted to 159,567 inhabitants in 1998, increased to 286,071 inhabitants in 2014 according to the General Census of Population and Housing (INS, 2014). This population is made up of natives, natives (Baoulé, Bété, Malinké, etc.) and foreigners, mainly from the West African sub-region. The indigenous populations of Korhogo are Senoufo of Tiembara ethnicity (94%). However, these Tiembara coexist with other Senufo ethnic groups from elsewhere, notably Fodonon (3%) and Nafara (3%). The Senufo people are animists even if some have become Christians or Muslims. With the advent of Peleforo Gon Coulibaly University in 2012, each year, thousands of students are added to which are civil servants of the State and others in search of work in private companies (Ivorian Company de Coton, etc.) and small and medium-sized enterprises (SMEs) arriving in Korhogo. This situation creates urban land pressure, particularly due to the high demand for housing.

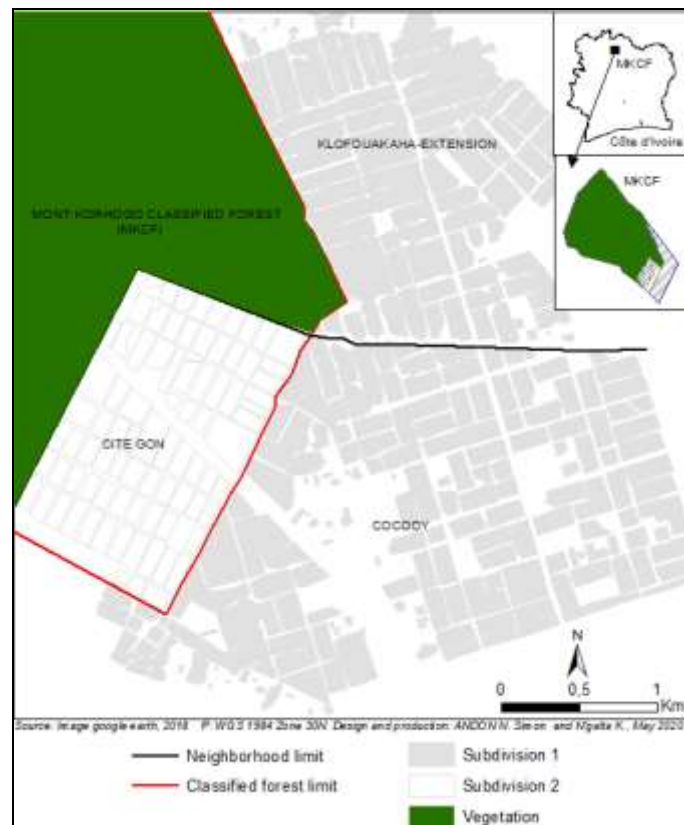


Fig 1: Location of the study area.

2.2 Materials and methods

In order to analyze the land use of the MKCF during our study period from July 2019 to May 2020, we used various materials and methods.

2.2.1 Materials

The materials used are as follows:

- A Landsat Copernicus satellite image of December 31, 2000 has been uploaded to Google Earth.;
- A UTM 2012 map of BNETD / CCT georeferenced
- Garmin Extex 85 GPS;
- A Samsung ST72 Lens 45-22.5mm camera;
- a Laptop with Arcgis 10.2.1 software;
- an Interview Guide and questionnaire.

2.2.2 Methods

2.2.2.1 Geometric correction

Knowing that the raw data of an image acquired by remote sensing contain sufficiently significant geometric distortions that they cannot be directly superimposed on the spatial data (images or maps) produced with known projections (R. Desjardins, 2000, p. 35), we started with a geometric correction of the satellite image downloaded into the Abidjan 1987 projection system and the WGS 84 UTM 30 North coordinate system. The relief being little uneven (285m above sea level), we preferred the so-called polynomial method over that of orthorectification. Indeed, geometric correction by polynomial transformation takes up the principles of spatial reference system transformations. This involves transforming the network of points of the non-georeferenced image system S' expressed in units of pixels, into another corresponding network in the georeferenced image system S whose coordinate axes are generally those of the local cartography (UTM 30 N WGS 84 map of BNETD / CCT) (R. Caloz and C. Collet, 2001, p. 86).

2.2.2.2 Directed classification

Visual perception has allowed us to classify information based on elements of structure, texture, color change, which correspond to objective characteristics which are not, however, immediately identifiable and exploitable. Therefore, a test area has been identified in the image. We then went to the space corresponding to this test area to recognize the different types of land use. Using GPS, we recorded the coordinates of the ground control points in the FCMK test area. Thus, the results of this recognition made it possible to determine three (02) land use classes defined according to our research objectives: vegetation corresponding to the forest classified in the image of 2018 and that of the buildings corresponding to the district. This allowed us to validate the codes of the objects delimited on the images and to make the interactive guided classification. Indeed, the polygon method was used on the Arc-gis 10.2.1 software, to determine samples corresponding to the different classes of the components of the classified forest. These samples guided the software to generate, from an interactive classification that retained in our results (Figure 1). Directed interactive classification performs the maximum likelihood algorithm using a set of samples. The classification consists in grouping the pixels according to their spectral resemblance to form thematically interpretable spatial units. This is a process that uses algorithms,

including the maximum likelihood algorithm, which considers the spectral signature as a normal (Gaussian) distribution. It therefore minimizes possible errors when assigning a pixel to a class. The maximum likelihood algorithm classifies and assesses both the variance and the covariance of the spectral signature categories (A. Shalaby and R. Tateishi, 2007, p. 33). The purpose of processing satellite images is to extract from them useful information for understanding the phenomena (deforestation for this research) taking place on the surface of the earth (R. Caloz and C. Collet, 2001, p.3). The extraction of the desired information depends on the software used in the processing of satellite images. Each software has advantages and limits. Arcgis 10.2.1 software is used to process satellite images downloaded free of charge from Google Earth in our study area. It presents information on the different occupancy classes of the research area in spatial terms. The spatial information obtained makes it possible to describe the phenomenon of the urban occupation of the FCMK.

2.2.2.3 Survey of administrative authorities

In addition, we conducted surveys with several structures including the regional directorate of the Ministry of Construction and Town Planning of Poro, the Ministry of Water and Forests, SODEFOR, the City Council through its Technical Service, the head of the village of Korhogo bordering the Mont-Korhogo classified forest and residents of the Gbon, Ouanwonvogo and Cocody neighborhood through interview guides and questionnaires. A random sampling was carried out with thirty (30) people including five (5) administrative and customary authorities and 25 inhabitants of the Gbon, Ouanwonvogo and Cocody neighborhood because the populations of these neighborhoods have histories, habits and customs and characteristics common geographic areas. The questions focused on the subdivision, in particular on when was it carried out? Who ceded the territory to be subdivided and who carried it out? Why was it done? Is it state approved? Direct observation has shown that the area is being serviced. We meet housing built and under construction, hotels, car garages, electric poles and a water tower under construction in the Gbon and Ouanwonvogo district located inside the current official limit of the classified forest from Mont Korhogo.

The various responses collected through field surveys and documentary research made it possible to analyze the situation from the angle of urban occupation in protected peri-urban state forest in the traditional to modern consideration and its repercussions.

3. Results and discussion

The town of Korhogo is experiencing an urban extension characterized by its demographic growth. This poses many problems related to the urban sprawl of Korhogo. During its extension, it overtook and colonized villages as well as certain part of the Classified Forest of Mount Korhogo thus posing several problems of land security. The research results first present and discuss the urbanization process started in a peri-urban protected forest before, during and after the military-political crisis of 2002-2011 before tackling the question of the reclaiming of land from the MKCF by the indigenous populations with the paradoxical encouragement of the State.

3.1 Urban extension in the classified forest of the peripheral mount Korhogo in the city of Korhogo

3.1.1 First clandestin subdivision in domestic protected forest before the crisis of 2002

Before the 2002 crisis, Côte d'Ivoire was a stable and prosperous country. The institutions operated according to the standards defined by the state. Thus, all subdivision decisions were made according to the subdivision procedures defined by the State. According to Atta (1984) cited by Bredoum *et al.*, (2015: 123) ^[6] "the land legislation makes the Ivorian State the sole owner of the land. It is he who, through the subdivision procedures, changes rural soil into urban soil. "During this period, the production of lots in the Municipality was the responsibility of the Municipality under the supervision of the Prefect. Depending on requests or solicitations, it initiates subdivision operations (IBID).

Before the transformation of the chosen rural area, a commodo and inconvenient inquiry is launched with the aim of negotiating with the owners of the area and compensating them. The State through its technical services, in this case the Department of Construction and Departmental Town Planning, ensures the smooth running of the operation. Its action is therefore located downstream and upstream of the subdivision. When the land is known, the subdivision managers contact a surveyor who, in turn, delimits the area to be subdivided. Then, the Ministry of Construction and Town Planning designs the fragmentation project. Subsequently, the project is submitted to the Mayor and to the entire City Council for adoption. After the approval of the Municipality, it is the Ministry of Construction and Town Planning that has the power to approve or not the proposed work, to check if the standards recommended by the land and town planning legislation are respected. Thus for each subdivision, a specification is submitted to the developer (Bredoum *et al.*, 2015: 123, 124) ^[6].

According to our research, it appears that the territory that served as a subdivision for the construction of the Cocody district, belongs to the indigenous populations. This space was occupied by agricultural plantations of the populations of the village of Korhogo. The urban extension of the Commune has led to the urbanization of this space which is nevertheless part of the FCMK during the normal period of the country. The indigenous populations of the village of Korhogo currently located in the district known as Ancien Koko recognize only the current limits of the FCMK. For them the territory of the Cocody district belongs to them. This situation raises the question of identifying the limit of state-owned protected forests on the one hand and on the other hand poses the problem of land ownership between the State and the indigenous populations. These problems are supported by Andon (2010: 16) ^[1] when he finds that in Côte d'Ivoire, by studying the case of the Marahoué National Park that state-protected forests continue to be considered *de jure* (according to legal texts) as a permanent domain of the state but *de facto* (in fact) as customary properties. This is why, for (Aubert *et al.*, 2013: 3) ^[4] insecurity of land in and around protected areas constitutes an obstacle to be overcome in order to effectively conserve biodiversity in Africa. The demarcation of protected national forests undertaken by the Ivorian state between 1991 to 1994 after the observation of more than 75% loss of the area of Ivorian forests through the Forest sector plan 1 (PSF1) have favored the current limits. Thus an unofficial declassification (although there is no legislative text to this effect) has

favored the existence of the Cocody district. Not content with this situation, a part located within the current limit is being urbanized. The next part consists in understanding the reasons for this urban intrusion into a peri-urban protected forest.

3.1.2 Second clandestin subdivision of the classified forest of Mont Korhogo during the crisis (2002-2011)

The results showed that the urban sprawl of Korhogo has caught up with the village of Sonzoribougou. The village was first subdivided and then, the indigenous populations who did not receive a batch within the territorial limits of the village as well as those who saw their houses destroyed by the streets of the subdivision of the said village asked and obtained the chiefs of land a portion of the FCMK to satisfy their housing. It was the desire to resolve the problems of management of traditional community lands by the modern system of individual subdivision of land, which led to the occupation of the protected forest space, more than there was more space free other than that of the FCMK. Even this allotted space (Gbon Coulibaly district) was unable to reframe all the populations concerned. This is how the Ouanwonvogo Carrière district was also divided under the same conditions. Despite this, many people have not yet won lots and continue to claim their share of lots today.

Indeed, in Sonzoribougou, as in all Senoufos villages, customary land management is carried out by lineage. In this village, it is the traditional system that regulates land management. This management is community-based since it belongs either to a family or to a community. The Chief of Land implements consensual decisions of the family or the community so that conflicts were rare or attenuated when they arise. The chief of land can therefore be different from the chief of the village. And according to the custom of Tiembara (indigenous Senoufo ethnic group of Korhogo), "the land is a deity, so it must not be sold. We can only give it up". It highlights the sanctity of the earth. This is why, it is not sold, but it is acquired by inheritance. Thus, any agricultural crop or perennial activity is prohibited there except with the authorization of the family or the community. This reality of traditional land management in Africa is supported by El Hadji Mohamed Diop (1983: 2) ^[11] when he asserts that in Africa, "land is a link between the world of the living and that of the dead".

This customary management has been overturned by the urban extension of Korhogo, which is proceeding with subdivisions to meet the high demand for housing. This way of managing land obeys an individualist management mode. And the acquisition of land (lots) is by purchase. To obtain the land title or the accession of final concession (ACD), it is necessary to follow the customary and modern administrative procedures. That is to say, you must request and obtain a village certificate issued by the village chief, a municipal authorization and a technical file followed by the administrative procedures of the regional directorate of the Ministry of Construction and Town Planning. Under these conditions, the catching up of the village of Sonzoribougou by the Municipality of Korhogo has upset the traditional system, the predominant of which is the transition from family or community management of land to individual management of land. In addition to desecralising the land, the management of allotted land will be confronted with the management of the number of people to deliver lots. This is how the number of people in the village of Sonzoribougou

who were unable to obtain lots within the limits of their divided village lands were resettled in the classified forest of Mont-Korhogo. These results are confirmed by El Hadji Mohamed Diop (1983: 2) ^[11] when he stipulates that the introduction of European land law, at the same time as it upset the preexisting traditional structures, made it possible to legalize, through a transcription, individual appropriations of the soil. This was a departure from the principles of the collective management method based on customary land tenures and based on the inalienability of land by talking about the land situation in Lomé in Togo.

3.2.3 Approval of the clandestin subdivision and sustainability of the protected forest area urbanized by the state in the post-crisis period of 2012-2019: ambiguity

The results showed that the subdivision of the Gbon Coulibaly district carried out in 2007 was approved by Order No 14-0762 / MCLAU / DGUF / DU / SDAF of September 26, 2014 as well as that of the Ouanwonvogo Carrière district by Order No 14 -0728 / MCLAU / DGUF / DU / SDAF of September 26, 2014; while that of Cocody Barrage lotie from the 1990s (Andon *et al.*, 2018: 233) ^[2] was also approved by Order No. 14-0532 / MCLAU / DGUF / DU / SDAF of August 19, 2014 and the village Sonzoribougou now Sonzoribougou Barrage district by Order No 14-0454 / MCLAU / DGUF / DU / SDAF of August 19, 2014.

In addition, the Cocody barrage district has been serviced (that is to say electrified and supplied with drinking water from the Côte d'Ivoire Drinking Water Distribution Company (SODECI) since 2009. As for the district Gbon Coulibaly and Ouanwonvogo, servicing has started since 2017. A water tower is under construction (Photo 1). The poles and its power lines are being done and the housing (Photo 2). Garages (Photo 3), shops (Photo 4), hotels (Photo 5), and a public primary school (Photo 6) are built there with the reprofiling of well-made streets as shown in Photo 1 to 6 below. Despite the sign expressing the limit of the classified forest (Photo 7), these two districts are already inhabited with water from boreholes and wells.



Source: (ANDON NS, July 2019) ^[3]

Photo 2: Housing and electricity, Gbon district



Source: (ANDON NS, July 2019) ^[3]

Photo 3: Car garage, Gbon district



Source: (ANDON NS, July 2019) ^[3]

Photo 4: Gbon district shop



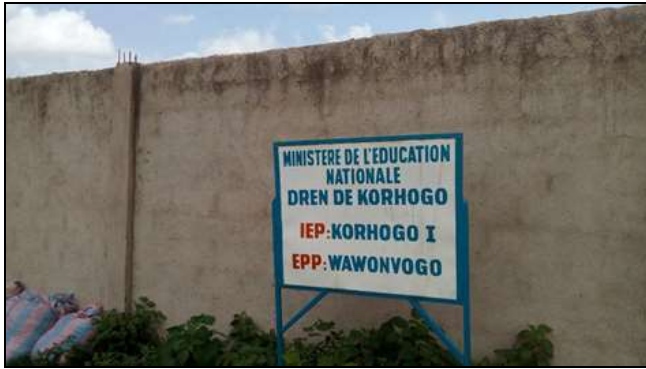
Source: (Andon NS, July 2019) ^[3]

Photo 1: Water tower under construction Gbon district



Source: (ANDON NS, July 2019) ^[3]

Photo 5: Hotel district Gbon



Source: (ANDON N.S, July 2019) ^[3]

Photo 6: Public Elementary school of District Gbon



Source: (ANDON NS, July 2019) ^[3]

Photo 7: Sign indicating the limit of the classified forest

When asked why such a paradoxical situation? That is to say, why take steps to protect a forest and take action to encourage this illegal occupation? The answer is this: since we have just emerged from a decade-long crisis, it is a fact that we have seen. Wanting to clear them away will create a social crisis which we do not know how it will manifest. This is why the Ivorian state, while making the illegal occupation viable, has refused further requests from the indigenous populations and informed the chiefs that it will no longer tolerate such a subdivision action in state-owned protected forest. Indeed, the indigenous populations who have so far not obtained lots continue to hope to have a lot in another clandestine subdivision in the classified forest of Mount Korhogo. However, the approval of the subdivision gives the holder of lots in these districts the right to register their lot through the land title or the ACD. As a result, this action gives the right to the indigenous populations who have ceded the land of the classified forest, the right to recover their land defended by forest protection since colonial times and the current independent administration. This situation shows that the problem of land ownership between the State and the indigenous populations remains. But the persistence of community action despite the state provisions favors the reappropriation of land in the forest protected by the indigenous populations. Furthermore, the superimposition of poorly coordinated customary and public authorities and powers in land administration in a context of high demand leads to numerous abuses and disputes (RCI, 2016: 22, 23) ^[19].

3.3 Re-ownership of the state protected forest area by local aboriginal populations

The rights of indigenous peoples are recognized by the

international, national and local community. Despite the measures taken by the Ivorian State to ensure the protection of forests, certain problems encountered in the management of these forests open the door to a form of reappropriation of forest land protected by the indigenous populations, notably the Senoufo "Tiembara" of Korhogo for the classified forest of Mount Korhogo.

3.3.1 International, national and local recognition of aboriginal rights

Indigenous rights have been recognized and highlighted since the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil in 1992 at international, national and local levels. Principle 22 of the Rio Declaration on Principles of Forest Management states that

Indigenous peoples and communities and other local communities have a vital role to play in environmental management and development through their knowledge of the environment and their traditional practices. States should recognize their identity, culture and interests, provide them with the necessary support and enable them to participate effectively in the achievement of sustainable development. (Rio Declaration on Environment and Development, 1992: 5) and in its article 5. a) That National forest policies should appropriately recognize and protect the identity, culture and rights of indigenous peoples, their communities and other communities, and forest dwellers. Appropriate conditions must be made for these groups to enable them to be economically interested in the exploitation of forests, to carry out profitable activities, to achieve and maintain their own cultural identity and social organization and to enjoy means of adequate existence and standard of living, in particular thanks to land tenure systems which encourage environmentally sustainable forest management. (IDEM: 7) Confronted with a very conflicting land context, the Ivorian authorities tried through Law No 98-750 of 23 December 1998 to put an end to confusions of the land situation generated by the inadequacy of the legal framework inherited from colonization and its consequences : absence of clear ownership rules, weakness of the customary authorities to settle disputes, inadequacy of the formal legal device for registering transferred rights and absence of a guarantee of settlement of conflicts by the official judicial device (Chauvreau, 2007: 156; Ouedraogo, 2004: 6, 7) ^[9, 18]. This law establishes the recognition of customary rights as a prerequisite for the clarification and identification of land rights. Although this law is facing difficulties in its application and modified by Law No 2004-412 of August 14, 2004, it remains the only reference to which the other texts try to make it application at each relevant level.

At the level of Korhogo, all rural land belongs to the customary authorities in the rural areas and it is they who manage it. And at the city or municipal level, land management is the responsibility of municipal and state authorities. These are registered. Urban development, during its expansion, recovers and transforms customary land into urban land. Since 2014, the State has given authorization to customary chiefs to subdivide their rural area, which has been overtaken by urban expansion. This is why, for any process of obtaining a land title or accession to a final concession (ACD), a village certificate necessarily issued by the Chief of the village concerned. This is how, in a context

of urban growth, peri-urban protected forests are subject to strong land pressure from its territories.

3.3.2 Provisions and problems of management of the state protected forest area north of Côte d'Ivoire

After gaining independence on August 07, 1960, Côte d'Ivoire renewed the management strategy for state-owned protected forest areas resulting from the colonial administration through Law No. 65-425 of November 20, 1965 and Decree No. 66-433 of September 15, 1965 (RCI, 2003)^[20]. To ensure the protection of this forest heritage, a regulatory and institutional framework was put in place with Law No. 65-425 of December 20, 1965 on the Forest Code and the creation of the Development Society of Forests (SODEFOR) in 1966 (F. Lauginie, 2007 p.31; E. Leonard and J. Ibo, 1994: 31)^[14, 1]. These protected forests constitute the last natural refuges of animal and plant species. The state wants these protected forest areas to be continuously preserved in order to maintain their biological and cultural value. For this reason, it prohibits all anthropogenic activities inside forest areas protected by the state. But the institutional instability and the lethargy of environmental legal instruments in the field of conservation of the forest heritage protected thus the political will turned towards the economic progress and the development of the country will cause a strong anthropic pressure on the forest resources from 1965 to 1990 (Andon, 2010: 41)^[1]. Awareness of the scale of deforestation 75% in 36 years (12 million hectares of virgin forest in 1956 to 2.5 million hectares in 1991) (RCI, 1994: 49)^[21] has led to adoption of the national forest protection policy through the Forest Master Plan (1988-2015). This policy has made it possible to strengthen institutional, administrative, human, material and regulatory resources. Among others, we can cite the development and adoption of the Environment Code in 1996, the National Environment Agency, the Framework Program for the Management of Protected Areas (PCGAP) which enabled the creation of the Ivorian Office of Parks and Reserves (OIPR). One of the provisions in terms of forest protection consisted in prohibiting all logging of classified forests located above the eighth (8th) parallel, that is to say located in the North of the country by Decree No. 94- 364 of July 1, 1994. Thus, the classified forests of the North of the country benefit from the same provisions as the National Parks and Reserves of the country. No anthropogenic activity is allowed. But in reality, these protected national forests are under anthropogenic pressures from all sides (habitats, agricultural activities, extensive livestock farming and transhumance, hunting, illegal gold panning, illegal logging (for certain actions cultural heritage, timber, service wood and fuel wood), bush fires) for several decades despite the efforts made by the State. The classified forest of Mount Korhogo which is easily accessible to the populations, is much exploited for the satisfaction of their needs. For Ibo (1992)^[13] and Goh (2002) cited by Brou (2011: 5, 6)^[5], it was the previous repressive approach inherited from colonization which consisted for agents of State Water and Forests in destroying all clandestine plantations, to chase the contraveners with the prohibition to penetrate in this field, and to arrest them to pass them to judgment accompanied by sanctions of imprisonment and fines which makes that the expected results are not achieved. Although the participation approach is advocated, the lack of adequate consultation

jeopardizes its proper functioning (Andon *et al.*, 2019: 351)^[3]. As a result, despite the repression, the indigenous populations living near protected forests continue to regard the permanent domain of the State as ancestral property.

3.3.3 Re-appropriation of the territories of the classified forest of Mont Korhogo by indigenous

Subdivision operations as well as the infiltration of peasant populations threaten the existence of state-owned protected forests. These infiltrations are a response of the populations to a spoliation of their land. In Côte d'Ivoire as in Togo, before colonization, all forests were managed by the heads of traditional families of forest peoples and tree and shrub savannas. During colonization, a proportion of these forests were defended (protected) by the colonial administration. Thus, the rights of use recognized for the local indigenous populations have been limited. After independence, almost all of the forests protected by the colonial administration were renewed by the new independent administrations (Mahazou, 2004: 4)^[15]. Ibo and Léonard (1992: 14)^[13] arrive at this analysis by saying that the local populations, using plots of classified forest, think they have the only possibility of recovering a fraction of the rent coming from their ancestral lands, including Ivorian legislation has excluded them. Thus, the indigenous populations of Korhogo, by subdividing a portion of the classified forest of Mount Korhogo and by constructing it according to urbanization standards with the approval of the State appears as another form of re-appropriation of their ancestral territory claimed since the classification of this protected forest in 1953. Indeed, the Classified Forest of Mount Korhogo (FCMK) was created by colonial text no 453 / 22-01-53 in 1953 (Ouattara, 2001: 29)^[17]. It remained classified by the public authorities after the independence of the country in 1960 until today. Its area increased from 1,409 hectares in 1953 to 1,285 hectares in 2013 (ITTO, 2013: 2) to be 1,155 hectares (Andon *et al.*, 2018: 232)^[2]. Or an area of 254 hectares reclaimed by the indigenous populations since its creation. While the dynamics of land law should then make it possible to better articulate the challenges of the simultaneous achievement of the objectives of biodiversity conservation and improvement of the living conditions of the populations.

4. Conclusion

The city of Korhogo, during its extension catches up with the villages and transforms their traditional rural space to an occupation according to modern standards. This transformation is upsetting the traditional community land management system. Land is sacred and is acquired by inheritance in customary land management, while in urbanization individualizes land through lots and is acquired by purchase completed by administrative formalities. The case of the village of Sonzoribougou created several problems, including, among others, the land pressure around and in peri-urban protected state forests. Thus, the classified forest of Mount Korhogo, a protected peri-urban forest in Korhogo saw its territories occupied by the urban extension of the city of Korhogo in times of crisis. Indeed, the number of family and community members to award lots was greater than the space available. And like all the other lands are occupied except those of the Classified Forest of Mont Korhogo, certain populations settled in this protected national forest in 2007, in the absence of the State during

the politico-military crisis (2002-2011). Despite this, not all populations were able to obtain lots. And the latter continue to request part of the classified forest for housing. Even the return of the state has not made it possible to recover from this underground space which is divided and under construction. On the contrary, to avoid a social crisis after a decade of crisis, the state concedes this territory to the indigenous populations by approving the subdivision and making the district viable. However, He warned indigenous people against all forms of urban expansion in this protected forest. Thus, the resistance of traditional collective memory has favored the reappropriation of ancestral lands occupied by the protected forest. This situation led to the loss of 254 hectares of the classified forest. Under these conditions, would not good land management of protected peri-urban state forests be necessary for effective and sustainable management of these forests?

5. References

- Andon, N'Guessan Simon. «Évaluation de la politique de protection forestière domaniale de la Côte d'Ivoire à partir d'outils géomatiques : cas du parc national de la Marahoué» Thèse. Montréal (Québec, Canada), Université du Québec à Montréal, Doctorat en sciences de l'environnement, 2010. Consulté le 08/07/2019 [En ligne] URL : <https://archipel.uqam.ca/3704/1/D1987.pdf>
- Andon N'Guessan Simon, Konan Kouamé Hyacinthe, Alla Della André et Djah Akissi Gisèle. État des lieux d'une forêt protégée périurbaine en région de savane de 1998 à 2018 : cas de la Forêt classée du Mont Korhogo au Nord de la Côte d'Ivoire. In LONNYA Revue de Laboratoire des sciences sociales et des organisations UFR des Sciences Sociales et Humaines, Université Lorougnon Jean Guédé de Daloa. 2018; 1(5):221-247.
- Andon N'Guessan Simon, Alla Kouadio Augustin et Atta Kouacou Jean-Marie. Participation et gestion de forêts protégées périurbaines en Côte d'Ivoire : cas de la forêt classée du Mont Korhogo. In Échanges Revue de Philosophie, Littérature et Sciences Sociales, Laboratoire d'Analyse des Mutations Politico-juridiques, Économiques et Sociales (LAMPES), Université de Lomé Revue semestrielle No 012, Juin, 2019, 351-371.
- Aubert Sigrid, Saholy Rambintsoatra et Jules Razafiarijaona. L'insécurité foncière dans et autour des Aires Protégées de Madagascar : un obstacle à surmonter pour la conservation de la biodiversité et le développement rural. In *Développement Durable et territoire*, 2013; 4(1):1-17. [En ligne] URL : <https://journals.openedition.org/developpementdurable/9661>
- Brou Ahoissi Nicolas. Approches stratégiques de gestion durable des ressources forestières : la place de la transdisciplinarité, 2011. Actes de colloques Yaoundé [En ligne] consulté le 26 / 07/ 2019, URL : https://www.sifec.org/static/uploaded/Files/ressources/actes-des-colloques/yaounde/pleniere-4-2/3_BROU_TXT.pdf
- Bredoum Kouakou David, Diabagate Abou, Gogbe Téré et Coulibaly Zana Souleymane. Les conflits fonciers dans la ville de Korhogo, In Revue Africaine d'Anthropologie, Nyansa-PÔ, No 19, 2015, 119-137.
- Brou Y. et Chaléard J. Visions paysannes et changements environnementaux en Côte d'Ivoire, In *annale de géographie*, n°653, 2007, 65-87.
- Biyoa Léon. Les «droits» fonciers traditionnels en Afrique occidentale et centrale. Mouvement mondial pour les forêts tropicales, Bulletin 234, 2017, [En ligne] Consulté le 06/08/2018 URL : <https://wrm.org.uy/fr/les-articles-du-bulletin-wrm/section1/les-droits-fonciers-traditionnels-en-afrique-occidentale-et-centrale/>
- Chauvreau Jean-Pierre. La loi de 1998 sur les droits fonciers coutumiers dans l'histoire des politiques foncières en Côte d'Ivoire. Paru dans Christoph Eberhard (dir.) Enjeux fonciers et environnementaux Dialogues afroindiens, Pondichery, Institut Français de Pondichery. 2007; 549:155-190.
- Déclaration De Rio Sur L'environnement Et Le Développement-Principes Sur La Gestion Des Forêts: Sommet de la terre, Conférences des Nations Unies sur l'Environnement et le Développement. (3 au 14 Juin), Rio de Janeiro, Brésil, 1992, 10 p
- DIOP El Hadji Mohamed. La situation foncière dans le Centre-Ville de Lomé dans Dynamiques foncières de l'État et du Capitale dans quelques d'Afrique noire, Colloque international Saint Riquier (France) sur Les pratiques foncières en Afrique Noire, (5 au 9 Décembre), Centre ORSTOM de Lomé, 1983, 1-8.
- Fao, Organisation Des Nations Unies Pour L'alimentation Et L'agriculture. Évaluation des ressources forestières mondiales 2015. Comment les forêts de la planète changent-elles, 2015. [En ligne] Consulté le 25/07/2019 URL : <http://www.fao.org/3/a-i4793f.pdf>
- IBO Guéhi Jonas et LÉONARD Éric. *Colonisation agricole et gestion de l'espace agro-forestier: une proposition de réhabilitation de la forêt classée de la Niégré*. Abidjan, Côte d'Ivoire, Sodefor, Orstom, 1992, 11.
- Lauginie F. Conservation de la nature et des aires protégées en Côte d'Ivoire. NEI/Hachette et Afrique Nature, Abidjan, 2007, 668.
- Mahazou, Gominan Ibrahim. Plan forestier national du Bénin élaboré à l'occasion de la cinquième session du forum des Nations-Unies sur les forêts, 2004. [En ligne] Consulté le 01/08/2018 URL : http://www.un.org/esa/forests/pdf/national_reports/unff5/benin
- OIBT (Organisation Internationale De Bois Tropicaux). Réhabilitation des forêts classées dégradées du Mont Korhogo, de Foubou et de Badenou au Nord de la Côte d'Ivoire avec la participation des populations riveraines. Rapport de proposition de projet, 2013, 47.
- Ouattara, N'Klo. Situation des ressources génétiques forestières de la Côte d'Ivoire : Zone des Savanes. FAO, Rome, 2001, 47.
- Ouedraogo Hubert MG. Étude comparative de la mise en œuvre des Plans fonciers ruraux en Afrique de l'Ouest : Bénin, Burkina, Côte d'Ivoire. Rapport final de LandNet West Africa, 2004, 47 p.
- RCI (République De Côte D'ivoire). Cadre d'analyse de la gouvernance foncière de la Côte d'Ivoire. Rapport final (Mars). Banque Mondiale, 2016, 136 p.
- RCI (République De Côte D'ivoire) Prise en compte de l'environnement dans les politiques et programmes de développement local, Séminaire des conseils de

- districts et conseils généraux. Ministère d'État, Ministère de l'environnement, Abidjan, 2003, 121 p.
21. RCI (République De Côte D'ivoire) Le Livre Blanc de l'Environnement de Côte d'Ivoire (Tome 1). Ministère de l'environnement et du tourisme, Cellule de coordination du PNAE-CI, Abidjan, 1994, 197 p.