

CENTRAL AFRICAN ELEPHANT CONSERVATION STRATEGY

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GOAL OF THE STRATEGY

Ensure the conservation and sustainable management of elephants and their habitats in central Africa

1 SUMMARY

Central African elephant populations are faced with many threats including illegal killing, habitat loss and habitat fragmentation. Most conservation and management problems pertaining to elephant populations are common to all the countries of the sub-region and many important elephant populations straddle political boundaries of one or more Range States. Therefore, a sub-regional approach is needed to collectively address these problems. This regional strategy represents the first step in this process.

Elephants in central Africa occupy a wide variety of habitats, ranging from arid areas to dense humid forests. At present, two sub-species of African elephants are recognized; the savanna elephant (*Loxodonta africana africana*) and the forest elephant (*Loxodonta africana cyclotis*). The tropical forests in central Africa, covering approximately 1.86 million km² in surface area (Minnemeyer et al., 2003), or half of the surface area of the sub-region, are home to most of the continent's forest elephants. While it is very difficult to obtain accurate estimates on the abundance and distribution of forest elephants, it is likely that the largest remaining populations of central African elephants occur in the area encompassing Gabon and northern Congo. Savanna elephants are found in northern Cameroon, northern Central African Republic, Chad and parts of the Democratic Republic of the Congo, (where forest-savanna hybrids may also exist).

Elephants are a “flagship species” which hold a special place in the cultural traditions of central African peoples. Elephants play a very important ecological role, particularly in maintaining the diversity of flora and fauna and in regenerating their forest environments. Economic value of elephant tourism and elephant products is also significant (Brown, 1989; Brown & Wes, 1989; Barnes 1996; Berger 2001; Bulte et al. 2003).

Today central African elephants face numerous threats. In addition to the illegal killing of elephants for ivory and for meat, elephant habitats are threatened by increasing human populations and activities (roads, agriculture, industrial development, towns). Fragmentation and loss of habitats are especially advanced in savanna zones, but it is also apparent in some forest zones, such as south-west Cameroon and eastern Democratic Republic of the Congo (DRC). Several studies have revealed a strong negative correlation between the abundance in signs of human activity and elephant numbers (Barnes, 1995, Michelmore et al., 1994 ; Blake et Hedges, 2004). Incidents of human - elephant conflict (often linked to the destruction of agricultural crops by elephants) are widespread and seem to occur whenever people and elephants compete for space and resources (Hoare, 2001). This leads to negative perceptions and attitudes which are unhelpful to elephant conservation efforts and to wildlife conservation in general.

Other factors contributing to a decrease in elephant populations in the sub-region include institutional weaknesses, resulting from socio-economic difficulties and political instability in the sub-region, lack of capacity of national wildlife conservation and management institutions, as well as a lack of financial resources. In the particular, in the case of the elephant, which is threatened by extensive illegal killing, the involvement of other national services (such as the police, customs and the legal system) is essential to ensure the effective conservation of the species. These services are often found lacking in central Africa, due to the absence of training, resources, political will and good governance. Weak, inadequate or out-of-date legislation, as well as differences in relevant legislation in the Range States also pose significant constraints to effective conservation and management of central African elephants.

Finally, practical difficulties with surveying and monitoring elephant populations in largely forest environments combined with the lack of human and financial resources severely curtails our knowledge of elephant populations, (trends, population dynamics and movements) in central Africa. This lack of information is a major obstacle for effective decision-making on elephant conservation and management in the sub-region.

For additional background on central Africa's elephants, see background document available (in French only) on: http://www.iucn.org/themes/ssc/sgs/afesg/tools/pdfs/str_afcbg0512_fr.pdf

Upon the request of the ministers responsible for wildlife conservation from the seven central African elephant Range States, a meeting was held from 29 August to 2 September 2005 in Limbé, (Cameroon), with the aim of developing a sub-regional strategy for the conservation and management of central African elephants. The meeting was convened and coordinated by the IUCN/SSC African Elephant Specialist Group (AfESG). The strategy presented in this document is the final outcome of this meeting.

The goal of this strategy is to: “*ensure the conservation and sustainable management of elephants and their habitats in central Africa*” and is guided by a Vision borrowed from the Strategic Action Plan for the environmental and biological resources of Congo Basin ecosystems, which is: “*a central Africa that conserves and uses biodiversity in a sustainable manner*”.

Four main objectives for this strategy were identified based on the following considerations:

1. The need to strengthen legislative, regulatory and institutional frameworks to **reduce the illegal killing of elephants and trade elephant products.**
2. The need **to ensure connectivity between elephant populations**
3. The need **to improve knowledge of elephant populations and their habitats**
4. The need to change the negative perceptions of the wider public with respect to elephants, **in order to gain more widespread their support for their conservation.**

A series of results or outputs have been defined for each objective, with accompanying indicators of success. To achieve these results, several activities have been suggested.

Implicit in achieving these objectives and results is the realization that difficult and sometimes unpopular political decisions and actions will have to be taken, (for example, controlling the circulation of firearms, reduction and regulation of the domestic ivory trade). Additional human and financial resources will also have to be mobilised. Support of foreign partners, donors and NGOs in the form of financial and technical support will have to continue to play a crucial role in the successful implementation of this strategy.

2 INTRODUCTION

The African elephant (*Loxodonta africana*), the world's largest terrestrial mammal, is a remarkable species with extraordinary intelligence, complex social organisation and astounding ability to adapt its behaviour. It is a long-lived, slowly maturing species exhibiting a remarkable degree of social cohesion manifested in very strong and long-lasting social ties. It is an important "keystone", "flagship" and "umbrella species". In many African cultures, the elephant represents a symbol of strength and power, holding a special place in traditional beliefs.

The African elephant inhabits a wide variety of habitats ranging from arid semi-deserts to dense humid forests. Elephants have a very catholic diet and many populations exploit different habitats and different food resources during different parts of the year. Elephant range in central Africa covers sub-Saharan dry zones, grassy savannas, savanna woodlands, dry forests, mountain forests, marshy areas and dense humid forests. Central Africa encompasses one of the three most extensive stretches of continuous tropical forest in the world, covering approximately 1.84 million km². Forest zones cover almost half of the surface area of the sub-region and are home to many forest elephants, considered by some taxonomists as a separate species (*Loxodonta cyclotis*). The savanna sub-species (*Loxodonta africana africana*) occurs in the savanna ecosystems of Cameroon, the Central African Republic and Chad. In the forest/savanna patchworks of the north-east, east and south of the large forest blocks in the Congo Basin, the populations appear to be composed of a mixture of both sub-species.

The two African elephant sub-species are distinguished by their morphology, their ecology and their social organisation. Forest elephants are smaller and their tusks are longer, thinner and straighter than those of the savanna elephant. Although forest elephants consume grass and foliage, their diet also includes a good deal of fruit. Savanna elephants tend to be more herbivorous, consuming grass, leaves and bark, often occupying habitats where fruit are rare. Grass accounts for approximately 60% - 95% of their diet depending on the habitat and/or season. From a social point of view, savanna elephants generally live in a more extended group than forest elephants.

Elephants play a very important ecological role, particularly in maintaining the diversity of flora and fauna. They have a profound impact on their environment: they push over trees creating clearings and grasslands, dig for salt and disseminate seeds of many plants, creating a patchwork of forest types and habitats for many other species, and thus exert an influence over the age and structure of the flora and the specific composition of the fauna in their habitats (Short, 1981; Gauthier-Hion et al. 1985; White, 1992; Blake, 2002). These ecological relationships may have economic consequences. For instance, some tree species important to the timber industry have large seeds that are disseminated by elephants. If these animals were to disappear, the natural regeneration of these trees could be in jeopardy.

Elephants have long been hunted for their ivory. Already in the second half of the XIX century, the Arabs from Zanzibar drew attention to the fact that elephants were becoming rarer due to uncontrolled killing for ivory (Vande Weghe, 2004). Toward the end of the XIX century and in the early XX century, private concession activities and uncontrolled hunting led to the export of large quantities of ivory from the region (Blanc et al., 2003). Despite commercial hunting for ivory being banned over most of the territory of central Africa in the 1930s, elephant poaching for ivory continues up to the present day (Blake et Hedges, 2004). The economic, political and social instability that characterises the sub-region exacerbates the illegal killing of elephants.

Capacity and resource constraints as well as inadequate knowledge of the status and distribution of elephants in central Africa make it extremely difficult for governments to individually face up to the challenges of conserving elephants. A sub-regional approach would allow them to collectively address these problems which are common to the countries in the sub-region in a concerted fashion and by pooling meagre resources and powers. The strategy is also expected to help mobilize additional funds for elephant conservation in the sub-region.

The goal of the strategy is to ensure the conservation of elephants and their habitats in central Africa. This strategy is designed to be implemented over the next ten years.

3 CURRENT SITUATION OF CENTRAL AFRICAN ELEPHANTS

During the 1970s and 1980s, many regions in central Africa experienced serious outbreaks of illegal killing of elephants for ivory (Barnes et al., 1995; Barnes, 1987). Poaching was particularly intense in some parts of the now Democratic Republic of Congo (Hillman et al., 1983; Mertens, 1983; Alers et al., 1992), in the Congo (Fay et Agnagna, 1991) and in the Central African Republic (Douglas-Hamilton et al., 1985). A comparison between countries with low and intense poaching rates suggests that poaching may have had a significant impact on elephant populations in the forest zones of central Africa (Michelmores et al., 1994, CITES – MIKE, 2005).

It is worth noting that that period coincided with the establishment of extractive industries (logging and oil prospecting) in central Africa. Today, these activities continue to increase. Although logging often leads to the creation of secondary forest, a preferred elephant habitat, the influx of logging workers in forest zones also often goes hand-in-hand with the increased poaching of wildlife, including elephants (Barnes, 1987; Wilkie et al., 1992, Blake et Hedges, 2004).

However, at present any debate about actual elephant numbers and trends in central Africa is hindered by a lack of reliable data, especially with respect to elephant populations in forest zones (Blake et Hedges, 2004).

3.1 DISTRIBUTION, NUMBERS AND TRENDS¹

The sub-region of central Africa is home to large elephant populations (Blanc et al., 2003). The vast stretches of dense humid forest, covering a third of the sub-region, is a suitable habitat for elephants (Blake et Hedges, 2004). However, because of methodological reasons (inaccuracy of counting methods) and logistical reasons (lack of resources) it is very difficult to obtain accurate estimates on the abundance and distribution of forest elephants in central Africa. The difficulty is reflected in the estimates presented by Blanc et al. (2003) in their report on the conservation status of the African elephant derived from the African Elephant Database (see Tables 1, 2 & 3 in Appendix 1). For example, we can see that the “definite” category, (assumed to be the most reliable category of estimates) in central Africa (Table 2), only accounts for 17% of the total estimate (all categories of mixed estimates), while for the regions dominated by savanna, such as southern or eastern Africa, (where counting methods are more accurate and easier to carry out in logistical terms), the “definite” category accounts for between 70% and 80% of the total estimate (Table 1).

According to the most recent information available (50 % of which is 15 years old), elephant range in central Africa only accounts for 38% of the surface area of the sub-region (Table 2). We can see that for countries dominated by dense forest, (Gabon, Congo, Guinea, DRC), this percentage is higher (up to 86% for Gabon; Table 3), which seems to outline the importance of dense humid forest as a habitat for the African elephant. On the other hand, the percentage of range occurring in a protected area only accounts for between 5% and 28% (Table 3, Appendix 1, see also distribution maps per country in Appendix 2). We can also see that the level of range fragmentation (categories “known” and “probable”) of central Africa appears to be lower than in other sub-regions (Appendix 2).

These issues help elucidate problem of making conservation and management decisions elephant in a context where very little information exists, and where few elephant populations enjoy adequate protection (Blake et Hedges, 2004).

The following essential points are a summary of the above:

The forest elephant:

- Dense tropical forest, which covers almost all of Gabon, south-east Cameroon, north Congo and the extreme south-west of CAR, harbours probably the biggest number of forest elephants in the sub-region. This is largely explained by the relatively intact nature of the forest habitats and the very low human population density (between 1 to 6 people/km² in most parts of the area). In fact, many studies have systematically indicated a negative correlation between signs of human activity and elephant numbers in forest zones of this region, owing to the tendency of elephants to avoid human settlement

¹ The reference document used to prepare this strategy entitled, « *Drafting of the Central African Elephant Conservation Strategy* » (developed by IUCN – AfESG, July 2005) http://www.iucn.org/afesg/tools/pdfs/str_afcbg0512_fr.pdf , provides detailed information regarding the distribution and abundance estimates of elephants in the seven countries of the sub-region.

areas. (Barnes, 1995, Michelmore et al., 1994 ; Blake et Hedges, 2004). However, even in enclosed and sparsely populated areas, intense poaching may occur, as demonstrated in the case of the Salonga national park (36 000 km²) in the central basin of the DRC (CITES – MIKE, 2005).

- The increase in logging activities contributes directly to extending the area of human settlement. By opening a network of roads, logging also provides poachers with easy access to the heart of the forest. It must be stressed however, that logging per se is not necessarily a threat to elephant populations, provided that it is carried out within the framework of a sustainable forestry development plan that requires low impact logging, the strict application of wildlife legislation and the imposition of internal rules, banning personnel from taking part or encouraging illegal hunting activities. Furthermore, the secondary vegetation created by logging is often attractive to elephants (Barnes, 1988).

The savanna elephant :

- Savanna elephant populations in the sub-region are widely dispersed (see distribution map in appendices). Currently, their distribution appears to be primarily focussed on protected areas and their surroundings. This is the case in central and north Cameroon (Faro / Benoué / Bouba-Ndjida, and Waza / Logone), in Chad (Zakouma / Siniaka-Minia), in north DRC (Garamba) and north CAR (Manovou / Gounda / St Floris, et Bamingui-Bangoran). The situation may be explained partially by the higher human populations in some of these savanna zones, the vulnerability of elephants to poachers in more open environments and the lack of systematic survey activities outside protected areas. Political instability and armed conflict in Sudan, Chad and CAR, have had a significant adverse effect on wildlife in general, and on elephants in particular, as a result of commercial hunting organised by “hardened” poachers equipped with powerful weapons (Hillman-Smith et al. 1995 ; Hillman-Smith et al. 2003; Dejace, 2002 ; Douglas-Hamilton et al. 1985 ; Tello, 2000).

3.2 THREATS TO ELEPHANT POPULATIONS AND MANAGEMENT CONSTRAINTS

Several factors contribute to threats to elephant populations in central Africa, which have negative consequences for the effective conservation and management of the species. They can impact directly on elephant populations (for example, illegal killing, habitat loss and fragmentation), or indirectly (institutional weaknesses and political instability). The Central African Elephant Conservation Strategy aims to reduce these threats and constraints.

3.2.1 ILLEGAL KILLING

In spite of the political will of the countries in the sub-region to tackle elephant poaching and the involvement of the international community in conservation efforts, illegal killing continues to threaten all elephant populations in the sub-region. Recent data published by Hunter et al. (2004), suggest that between 4 000 and 12 000 African elephants are killed annually in order to feed the unregulated domestic ivory markets in Africa and Asia, and that the main source of this ivory appears to be central Africa. Poaching for meat also appears to be on the rise although hard data are difficult to come by to substantiate this. This illegal killing is exacerbated by the proliferation of firearms used in armed conflict and political and social instability in the sub-region, which serves to weaken countries' ability to control poaching. The involvement of local elites, political and administrative authorities as well as soldiers, is often critical in facilitating illegal killing and subsequent transport of elephant products to markets.

Porous international borders, combined with by political instability and social unrest in many countries, have encouraged incursions from neighbouring countries by various rebels and troops who are often implicated in poaching activities.

3.2.2 IVORY TRADE

Information gathered by TRAFFIC (Hunter et al. 2004) clearly illustrates the link between the unregulated domestic ivory trade and elephant poaching in the sub-region. The existence of the trade facilitates the entry of illegally-obtained ivory into national and international commercial markets and by meeting this demand, these markets encourage further poaching. Therefore this domestic ivory trade is a driving force for illegal killing of elephants in central Africa.

According to TRAFFIC, central Africa is currently the main source for the illegal ivory trade inside and outside the African continent. Moreover, some African countries such as Angola, Côte d'Ivoire, Djibouti, Egypt, Ethiopia, Nigeria, Senegal and Sudan (which have relatively few or no elephant populations) play an important role in the international ivory trade (Hunter et al, 2004; CITES, 2004). They stock up on ivory originating primarily from central African countries, probably because the latter still have relatively large elephant populations and border control at roads, ports and airports are lax. Investigations of ivory seizures also indicate that a significant quantities of ivory end up in international trade through 'leakage' from official ivory stocks from various countries.

Finally, studies conducted by TRAFFIC clearly indicate the leading role that the DRC and Cameroon play in the illegal ivory trade (Milliken et al, 2004). In the case of the DRC, the area most involved in the ivory trade is the east and north-east of the country. While in Cameroon, it appears that a significant quantity of ivory circulates through the south-east of the country and originates from forests in north Gabon, north Congo and the extreme south of the CAR.

3.2.3 IMPACT OF DEMOGRAPHIC PRESSURE

Research conducted on elephants suggests that an increase in human settlements lead to a decrease in the number of elephants in the area in question (Barnes, 1995, Michelmores et al., 1994 ; Blake et Hedges, 2004). The average human population growth rate is 2.19% for central Africa (The World Fact Book <http://www.cia.publications/factbook>) but the impact of this growth on the environment varies considerably depending on the area in question, as human populations are very unequally distributed in the sub-region. In several countries, approximately 70% of the population lives in major cities (Gabon, Congo, DRC), while in the countryside, vast stretches of land are sparsely populated (between 1 and 6 inhabitants per km² in Gabon, CAR and north Congo). However, some rural areas are relatively heavily populated (east, south and west Cameroon and east DRC). The development of new road networks (often linked to logging operations), facilitates human

settlement in areas that were previously uninhabited or that had very few inhabitants. Civil disturbance, armed conflict in east DRC, for example, has also caused people to move to sparsely populated areas.

Humans and elephants are therefore forced to share increasingly smaller habitats. This inevitably leads to growing competition for space, water, and pasture, resulting in human-elephant conflicts, and helping to perpetuate a negative view of elephants by the affected human populations. This phenomenon appears to be particularly common in the peripheral zones of protected areas. It is anticipated that “compression” of elephants into protected areas because of habitat fragmentation caused by human activity will become increasingly commonplace in the future.

3.2.4 INSTITUTIONAL WEAKNESSES

Institutional weakness in elephant conservation and management in central Africa manifest itself in different ways:

- Lack of technical capacity to carry out conservation and management activities (law enforcement, human-elephant conflict management, etc)
- Insufficient and/or ineffective legal framework (non-harmonised legislation, weak application and enforcement of the law)
- Lack of information about elephant populations (vis-à-vis distribution, abundance, threats and ecology)

Law enforcement:

Illegal killing of elephants is often carried out by unscrupulous people equipped with powerful firearms. Often these poachers do not hesitate to use force against protected area wardens. Owing to many other urgent socio-economic development problems and priorities facing the countries in the sub-region, insufficient priority is often given to wildlife conservation. All too often, badly equipped, insufficiently trained, and unmotivated law enforcement staff are overwhelmed by highly motivated, and better-equipped poachers. Hunters from local communities (villagers, pygmies and young unemployed city-dwellers) also play an important role in poaching elephants.

The lack of capacity to effectively control the illegal trade in ivory in central Africa have been demonstrated by data from TRAFFIC. The data show that a very wide gap exists between the volume ivory seized in central Africa, as officially declared by the respective countries, and the proportion of ivory originating from those countries that is seized outside the region (twenty times more ivory originating in central Africa is seized outside the region than is reported seized in the sub-region) (Milliken et al, 2004). Moreover, seized ivory originating from official stocks of central African countries are common. Many of these problems arise from the lack of control of the circulation of ivory within these countries and at international borders, and in the management of seized ivory stocks (lack of secure and transparent ivory storage procedures and information management and transmission to ETIS). The problem of good governance with respect to the management of official stocks is a common constraint.

Human-elephant conflict management:

This issue was also addressed in Section 3.2.2 – the impact of human demographic pressure. Elephants are often viewed in a negative light by local communities because they are forced to bear the costs of the presence of elephants without receiving any of the benefits. In light of this, it is perhaps not surprising that they frequently turn to poaching activities and do not respect the conservation and management objectives of protected areas. Unfortunately, no miracle solution exists to tackle the problem of conflict management. However, the IUCN/SSC African Elephant Specialist Group’s (AfESG) Human-Elephant Conflict Working Group is actively working to assess and develops new methods and strategies to deal with this extremely complex problem. Some of the work carried out by this group has shown that several deterrent measures carried out by local villagers and supported by local and national wildlife authorities can help to reduce the level of conflict. See: <http://iucn.org/afesg/hec> for more details.

Weakness of legal framework:

This problem stems from both regulatory and legislative shortcomings (particularly on a sub-regional level) and lack of implementation and enforcement. Although many central African elephant populations are transboundary in nature, there are major differences in the laws relating to wildlife countries in the different countries and the legal status of elephants differs in most countries in the sub-region. In some countries, elephants are fully protected regardless of their age, in others, only elephants with tusks weighing less than five kilos enjoy full

protection. Some countries have annual CITES quotas while others do not, etc. Legal killing of elephants for problem animal control can only take place with the permission from wildlife authorities and thus, the correct application and enforcement of national regulations regarding legal killing would in itself contribute to improving the protection of elephants in the sub-region. Therefore, overall sub-regional harmonisation of legislation governing this species would contribute to effective conservation and management of shared elephant populations.

There are many shortcomings in implementing and enforcing national laws. For example, criminals are often not adequately sentenced for wildlife crimes or are simply released without trial. Such situations can arise because of operational problems, (e.g. inadequate training and knowledge about conservation within the profession), but also because of poor governance, especially as it is often the authorities themselves (politicians, the legal system, the police and the military) who are involved in illegal killing and trade.

Lack of information about elephant populations:

Technical difficulties and financial constraints associated with surveying elephant populations, particularly in forest situations, were referred to in Section 3.1. implies that our knowledge of elephant populations (trends, population dynamics and movements) is still very incomplete and localised. Estimates of population numbers are often based on little more than speculation or guesses (Blanc et al, 2003). Moreover, the extent of the impact of human activity upon elephants is not fully known. The impact of the bushmeat trade upon elephants in central Africa also requires further investigation. Thus, the general lack of information on elephants in central Africa presents a major constraint to making effective conservation and management decisions.

4 OBJECTIVES OF THE STRATEGY, RESULTS AND ACTIVITIES

4.1 OBJECTIVE 1: REDUCE ILLEGAL KILLING OF ELEPHANTS AND TRADE IN ELEPHANT PRODUCTS

4.1.1 RESULT 1.1. THE LEGISLATIVE AND REGULATORY FRAMEWORK IS STRENGTHENED

4.1.1.1 Rationale

Effective elephant conservation and management in central Africa requires a sub-regional approach. Many of the elephant populations in Central Africa have transfrontier ranges and the conservation of these populations and their habitats requires trans-border cooperation between conservation services of the respective countries. Effective transboundary cooperation is also needed to combat illegal trade in elephant products. Although the problems associated with porous borders often stem from national security issues, and are therefore outside the mandate of this strategy, it is important to work towards harmonization of legislative and regulatory frameworks of the countries in the sub-region provide the same level legal protection to elephants. This would help minimize opportunities for poachers and traffickers to take advantages of the differences between countries vis-à-vis protection status, level of penalties for poaching and other relevant legislation.

On an international scale, it is equally important that countries honour their commitments to international conventions, particularly CITES. For instance, there must be full compliance with the CITES action plan on to control the unregulated domestic sale of raw, semi-worked and worked ivory (CITES Decision 13.26).

With respect to the complex issue of human-elephant conflict (Section 3.2.4.), there is a need to create a regulatory framework, enabling affected communities to be more involved in managing elephant problems, and where possible, to enable them to take receive more substantial benefits from elephant conservation. The aim of this approach is to mitigate human-elephant conflict by altering the public's negative view of elephants and increasing their thresholds of tolerance.

4.1.1.2 Activities

- Review national legislation and adapt it to international conventions and current realities
- Introduce legislation for participatory management and the equitable sharing of profits with local communities
- Make use of the findings and conclusions of studies already conducted in the sub-region on the harmonization of legislation

4.1.2 RESULT 1.2. THE ILLEGAL TRADE IN ELEPHANT PRODUCTS IS REDUCED IN THE SUB-REGION

4.1.2.1 Rationale

Stamping out the illegal trade in ivory elephant products will be vital for a strategy that aims to reduce elephant poaching. In addition to strengthening and enforcement of current legislation, measures must be taken in the areas of training, information sharing and awareness-raising.

Firstly, the relevant authorities, both within a country and at its borders, must receive the necessary training, equipment and support to effectively carry out wildlife crime investigations and control activities. Training should target all the institutions responsible for wildlife protection including police and customs officials.

Secondly, a mechanism to gather and disseminate information with respect to the illegal trade in elephant products will be crucial in order to penetrate and dismantle illegal trade networks. International systems that gather and disseminate information exist, (OCFSA, Lusaka Agreement Task Force, TRAFFIC, Interpol), and cooperation between these systems must be promoted. Moreover, additional studies must be conducted to better understand the networks involved in the trade of elephant products. Specifically, the extent of trading in elephant

meat and its impact upon elephant populations in central Africa is poorly understood and must be further investigated.

The present dynamics in international trade in ivory show that China is at present the largest importer of African ivory (Milliken et al, 2004). Furthermore, it is often Chinese nationals (or at least Asian nationals), who purchase ivory in the elephant Range States. Therefore, measures taken in cooperation with diplomatic representations (commercial attaches, etc) can prove useful in raising awareness amongst nationals, and in reducing the illegal export of ivory.

The awareness-raising activities should be carried out in conjunction with the supreme authorities of countries in the sub-region, particularly with regard to the problem of the circulation of firearms and the link between this and the illegal killing of elephants.

Finally, the private sector is considered to play a key role in elephant conservation in central Africa. Many large-scale industries (loggers, miners and oil prospectors) work in areas inhabited by elephants and undertake activities that can have significant adverse effects on elephants. Some activities that the private sector could carry out to mitigate this problem are described under Objective 2, Result 2.1. The private sector also needs to be properly sensitized and engaged in conservation efforts and become involved as an active partner in the implementation of this Strategy.

4.1.2.2 Activities

- Ensure effective control of the circulation and sale of elephant products and by-products
- Train and equip all personnel responsible for control of trade in elephant products both within, and at the country's borders
- Conduct information and research activities on the illegal trade in elephant products in collaboration with OCFSA, Lusaka Agreement Task Force, CITES, TRAFFIC, Interpol, WCO and other relevant agencies. It is particularly important to monitor domestic ivory markets in the sub-region and to enhance the quantity and quality of the information that countries provide to ETIS
- Appeal to the supreme authorities in the sub-region to protect elephants, addressing, inter alia, the issue of controlling the circulation of firearms
- Encourage the private sector to become more involved in elephant conservation activities
- Launch a diplomatic campaign aimed at citizens of consumer countries of elephant products. Measures must be taken within countries in the sub-region and must be aimed primarily at foreign nationals, tourists, diplomatic / commercial missions, logging companies etc.
- Carry out a study on the impact of trade in elephant meat in the sub-region in order to better understand the dynamics and impact of the bushmeat trade upon elephant populations in central Africa.

4.1.3 RESULT 1.3: THE INSTITUTIONAL FRAMEWORK IS STRENGTHENED

4.1.3.1 Rationale

Problems concerning the weakness of institutional frameworks for elephant conservation have been mentioned in a previous section (4.1.1.). These weaknesses are apparent on national and sub-regional levels. On a national the lack of resources (funds, manpower and equipment) allocated to elephant conservation reflect the low priority given to elephant conservation. Strengthening national institutional frameworks will require the drafting of national strategies, the mobilisation of adequate budgets, as well as the deployment of trained and equipped rangers on the ground.

On a sub-regional level, weaknesses in the institutional framework are due primarily to a low level of cooperation among States and insufficient synergies between governmental institutions and technical partners (research institutions and conservation NGOs). Countries in the sub-region face similar problems in managing

elephant populations, and elephants, poachers and businessmen cross borders at their leisure. Thus, countries in the sub-region that share elephant populations have everything to gain by coordinating their elephant population management activities. Enhanced sub-regional cooperation will require the establishment of consultation mechanisms that specifically address elephant-related issues.

4.1.3.2 Activities

- Establish an inter-ministerial consultation process on elephant management
- Develop and implement national elephant conservation strategies
- Incorporate the Central Africa Elephant Conservation Strategy in the Convergence Plan of the Yaoundé Process and monitor implementation of the Strategy
- Build and reinforce synergies between various relevant governmental and sub-regional institutions, initiatives and technical partners active in the sub-region
- Establish a steering and monitoring committee for the implementation of the Central Africa Elephant Conservation Strategy
- Encourage Range States to cater in their national budgets for the development of national strategies and for the implementation of the Central Africa Elephant Conservation Strategy
- Train staff in the various aspects of monitoring (elephant population surveys, ivory stock management, law enforcement, etc)
- Provide information to ETIS on a regular basis concerning seizures of ivory and other elephant products
- Centralize, strengthen and monitor legal procedures relating to illegal killing of elephants
- Implement effective ivory stock management systems
- Deploy monitoring personnel on the ground

4.2 OBJECTIVE 2 : MAINTAIN AND/OR RESTORE CONNECTIVITY BETWEEN CENTRAL AFRICAN ELEPHANT POPULATIONS

4.2.1 RESULT 2.1 : SUSTAINABLE AGRO-PASTORAL SYSTEMS ARE DEVELOPED AND IMPLEMENTED AROUND PROTECTED AREAS

4.2.1.1 Rationale

Elephants need large ranges to survive. The expansion of road networks in forest areas and the settlement of farmers along these routes, have led to the fragmentation of elephant habitat and to an increase in incidences of human-elephant conflict. The problem is exacerbated when elephants find themselves “compressed” in smaller and smaller pockets of secure habitat (for example protected areas), surrounded by a sea of human settlements, thereby cutting off elephant routes. Agro-pastoral/rural development strategies that limit the fragmentation of elephant habitat, while simultaneously enabling people to live alongside elephants with as little conflict as possible, must be tested and implemented. The Human-Elephant Conflict Working Group of the AfESG can play an important technical advisory role in this context. The need to develop land use planning tools is addressed in 4.2.3 below.

4.2.1.2 Activities

- Identify and map areas with unsustainable land use systems
- Carry out research into more sustainable agro-pastoral methods and techniques
- Integrate human-elephant conflict mitigation methods into existing or proposed land use systems

4.2.2 RESULT 2.2. TECHNIQUES WITH MINIMAL ENVIRONMENTAL IMPACT ARE PRACTISED BY EXTRCTIVE INDUSTRIES (LOGGING, MINING, OIL PROSPECTING)

4.2.2.1 Rationale

Extractive industries (logging, mining, oil prospecting, etc) often work in areas where elephants occur. Consequently, as part of the implementation of their development plans (a legal obligation in most central African countries), extractive industries are in a good position to guide their concession-based activities in order to encourage the protection of elephants. These activities must aim to stamp out poaching and the trade in elephant products in concessions (for example, by applying internal rules banning and sanctioning these activities). In addition, efforts must be undertaken to minimize undue habitat fragmentation in order to maintain connectivity between elephant populations. At the same time, as part of their socio-economic activities, industrial operators can also assist in seeking solutions to human-elephant conflict. The private sector should be supported by providing expertise and training from specialised bodies as part of partnership protocols. An advantage of this kind of partnership would be that the operator is usually able to provide logistical and operational support, which may specialise conservation bodies are lacking.

4.2.2.2 Activities

- Determine operating standards and develop research projects. More studies on the impact of industrial development (particularly logging), upon the ecology of elephants are urgently needed.
- Draft management plans for concessions
- Train staff in environmentally sensitive practices
- Establish partnerships between the private sector and elephant conservation organizations
- Develop a system to monitoring compliance and effectiveness

4.2.3 RESULT 2.3. NATIONAL LAND USE PLANS THAT TAKE INTO ACCOUNT MAINTAINING CONNECTIVITY BETWEEN ELEPHANT POPULATIONS ARE DEVELOPED AND IMPLEMENTED

4.2.3.1 Rationale

The economic development of countries in the sub-region is essentially based on the extraction of natural resources, and it is vital that they are used in a sustainable manner in order to secure the economic and environmental future of those countries. The unplanned development of economic activities (roads, industrial and agricultural development, industrial development of natural resources, towns etc.) can cause habitat loss, fragmentation of the environment, and lead to an increase in human-elephant conflict. Therefore, these activities must be planned carefully in order to balance the economic growth needs with the imperative of conserving the environment (fauna, flora, waters and land). Planning is best carried out using national land use plans. However, at present, no land use plans in the sub-region take into account considerations such as maintaining or establishing connectivity between elephant habitats, or maintaining gene flow between elephant populations. Enhanced knowledge of elephant populations and their habitats (Objective 3 below), is fundamental to guide the process of land use planning.

4.2.3.2 Activities

- Identify corridors between elephant ranges
- Draft a provisional land use plan to be used as a basis for discussion
- Discuss land use plans with relevant stakeholders

- Organize awareness-raising campaigns and monitor effective implementation of the land use plans
- Strengthen trans-border cooperation in order to protect identified cross-border elephant corridors and ranges
- Integrate into land use plans measures to fight desertification

4.3 OBJECTIVE 3: IMPROVE KNOWLEDGE OF ELEPHANT POPULATIONS AND THEIR HABITATS

4.3.1 RESULT 3.1. THE ABUNDANCE AND DISTRIBUTION OF ELEPHANT POPULATIONS ARE KNOWN AND MONITORED

4.3.1.1 Rationale

Our knowledge on the abundance and distribution of central African elephant populations, most of which occur in dense forest zones, is inaccurate and incomplete (Section 3.1). Without enhanced knowledge on elephant abundance and distribution, it will be impossible to develop a coherent strategy for their conservation and management.

4.3.1.2 Activities

- Define and establish appropriate protocols. Existing protocols (for example, MIKE methodology), should be used or adapted according to needs
- Mobilise financial and human resources
- Carry out elephant surveys. It will be particularly important to coordinate the censuses of cross-border populations
- Consolidate data obtained from previously conducted studies for integration into the African Elephant Database. The database is the only repository of data collected from all over the continent and it has the analytical power to process the data. Furthermore, it is the official repository of all CITES / MIKE surveys.

4.3.2 RESULT 3.2. ELEPHANT POPULATION DYNAMICS ARE KNOWN AND MONITORED

4.3.2.1 Rationale

Mere knowledge on the abundance of elephants is not enough to fully understand the status of elephant populations. There is also a need to investigate elephant population dynamics, trends, birth and mortality rates, and the impact that elephants have upon their habitats. This last issue is especially relevant in some protected areas located in savanna zones where elephants are being “compressed” into smaller and smaller areas.

4.3.2.2 Activities

- Identify research activities and priorities
- Develop terms of reference for individual studies to be carried out (mortality, birth rates, elephant impact on habitats, etc.)
- Establish a scientific steering committee for the studies
- Carry out appropriate research activities

4.3.3 RESULT 3.3. ELEPHANT MOVEMENTS ARE KNOWN

4.3.3.1 Rationale

Elephants can roam over very large areas, but under some circumstances, they can also remain confined to relatively small core areas (Poole, 1996). Factors that determine elephant ranges are very complex and not fully understood. Research carried out over the last twenty years indicates that social factors, (social cohesion and breeding), and dietary factors, (search for food depending on the season), are important but that the degree of human activity is the most significant factor determining elephant distributions. The recent advent of GPS technology and satellite tracking allows us to broaden considerably our knowledge of elephant movements (Douglas-Hamilton et al, 2005).

4.3.3.2 Activities

- Carry out appropriate studies into elephant ranging patterns. Sub-regional coordination of research concerning trans-border populations is particularly important.

4.3.4 RESULT 3.4. INTERACTION BETWEEN ELEPHANTS AND THEIR ENVIRONMENT ARE CONTROLLED

4.3.4.1 Rationale

The human-elephant conflict problem is of paramount importance. The long-term management of this problem will to a great extent determine the attitudes of humans towards elephants in the future, and therefore whether the two species can continue co-exist in the long run (AfESG, 2005). For example, as long as strong negative attitudes by local communities towards elephants remain, it will be difficult to effectively address the problem of illegal killing of elephants as the species will continue to be seen more as a liability than an asset (Hoare, 2000).

Furthermore, the relationship between wildlife management authorities and local communities is often strained as a result of human-elephant conflict (Hoare, 2000; Hoare 2001). This occurs, for example, when the affected communities demand compensation from the wildlife management authorities for the damage caused by elephants, claims which can often be neither adequately verified nor sufficiently honoured due to lack of capacity and resources (AfESG 2003; Taylor, 1993).

There is also the problem of lack of understanding of the conflict problem. To effectively manage human-elephant conflicts the nature and patterns of elephant crop raids must first be understood in order to develop conflict-mitigation strategies and to verify the soundness of villagers' claims (Hoare, 1999).

The support of local communities for elephant conservation activities can only be secured through the alleviation of the conflict problem through appropriate locally-adapted strategies. Importantly, such activities should include measures to increase the socio-economic benefits from elephants. In this context, the feasibility of community-based elephant tourism activities should be explored.

Finally, it is vital to better understand the impact of industrial and commercial development activities, particularly logging, on elephant habitat and behaviour.

4.3.4.2 Activities

- Research the dynamics of conflict (its origin, nature, scale and distribution)
- Studies on new mitigation methods; test existing methods on crop protection in different sites
- Study the impact of logging and mining activities
- Investigate the feasibility of elephant based tourism and other potential strategies to generate economic benefits for local communities
- Carry out research on the potential of mitigating human-elephant conflict through political and legislative instruments at the local, national and international levels

- Train local wildlife authorities and affected communities in methods of mitigating human-elephant conflict
- Make further use of existing tools and products developed by the IUCN/SSC AfESG's Human-Elephant Conflict Working Group
- Study the sustainability of elephant sport hunting in Cameroon, in order to assess the feasibility of this expanding kind of activity in central Africa in the future

4.4 OBJECTIVE 4: GAIN THE SUPPORT OF THE WIDER PUBLIC FOR ELEPHANT CONSERVATION

4.4.1 RESULT 4.1 THE WIDER PUBLIC IS AWARE AND INFORMED OF THE IMPORTANCE OF CONSERVING ELEPHANTS

4.4.1.1 Rationale

Involving the wider public in elephant conservation principles is a requirement for the strategy's success. Currently, the information the wider public possesses about elephants is sketchy, and often incorrect. In particular, the importance of elephants in regenerating forests (and thereby maintaining the diversity of natural resources upon which man relies), is not fully understood. An awareness-raising campaign aimed at all sectors of society must be developed and implemented. Such campaigns must not only disseminate information regarding the ecological and economic importance of elephants, but also information concerning legislation in force for the protection of the species and the ban on the international trade in ivory.

4.4.1.2 Activities

- Work with community organizations/associations to launch awareness-raising campaigns
- Establish information and awareness-raising programmes in rural areas through school visits, films and plays
- Encourage media interest in elephant conservation and collaboration in producing features on elephants
- Procure necessary equipment and logistical arrangements for awareness-raising campaigns
- Mobilise necessary funds
- Build capacity of media presenters to raise awareness on elephant conservation issues
- Disseminate information about relevant legislation to the wider public

5 CONCLUSION

Various threats facing elephant populations in central Africa have been highlighted in this strategy. While these threats are serious and challenging, it is certainly not too late to take action to combat them. Compared to other regions in the world, (particularly south-east Asia), the forests in central Africa remain relatively “intact”, insofar as **large, sparsely populated, uninterrupted forest blocks still exist**. If managed correctly, they could continue to harbour large elephant populations.

The relatively low density of human settlements in savanna zones is an advantage for conservation activities. If adequately managed and protected, these habitats could harbour much larger elephant populations, as well as other populations of large mammals.

The challenge that the countries in the sub-region face is to take action before it is too late. The development of this strategy is the first step in the process. On a political level, it is crucial that the strategy is officially integrated into the COMIFAC process, and in particular, into its Convergence Plan. Following this, there will be a need to develop national action plans that dovetail with the objectives of this strategy. Some action plans do already exist, but most will require extensive revision and updating.

During the Limbé workshop, the participants unanimously agreed that, given its extensive experience with similar initiatives elsewhere on the continent, the IUCN/SSC AfESG should continue to be the leading agency in coordinating the implementation of the strategy. Its ability to play this important role is however currently limited by funding constraints that need to be addressed.

Finally, the implementation of this strategy will require strong political will from governments. Difficult and sometimes unpopular political decisions and actions will have to be taken, (for example, controlling the circulation of firearms, reduction and regulation of the domestic ivory trade) and additional human and financial resources will have to be mobilised despite the pressure to allocate all available funds to economic development activities. Support of foreign partners, donors and NGOs in the form of financial and technical support will continue to play a crucial role in the successful implementation of this strategy.

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7 APPENDICES

7.1 APPENDIX I ELEPHANT DISTRIBUTION AND NUMBERS

1. TABLE 1: AFRICA : DISTRIBUTION AND STATUS OF ELEPHANTS PER REGION

Region	Definite	Probable	Possible	Speculative	Surface area of the region(Km ²)	Range area (Km ²)
Southern Africa	246.592	23.722	26.098	7.508	5.973.020	1.680.130
Central Africa	16.450	32.263	64.477	82.563	5.365.550	2.060.763
West Africa	5.458	1.188	3.039	3.498	5.096.660	219.868
Eastern Africa	117.716	17.702	22.511	5.738	6.182.037	969.113
TOTAL²	402.067	59.024	99.813	99.307	22.617.267	4 929 874

(source : Blanc *et al*, 2003).

2. TABLE 2: CENTRAL AFRICA : DISTRIBUTION AND STATUS OF ELEPHANTS PER COUNTRY

Country	Definite	Probable	Possible	Speculative	Superface area per country (Km ²)	Range area (Km ²)
Cameroon	2.006	3.058	9.017	3.160	475.440	173.765
Congo	431	18.222	6.572	2.300	342.000	248.361
Gabon	0	8.132	14.712	58.309	267.670	229.594
Equatorial Guinea	0	0	0	300	28.050	15.257
CAR	2.977	1.600	2.420	390	622.980	217.708
DRC	7.667	2.631	34.996	17.554	2.345.410	912.105
Chad	1.989	0	2.000	550	1.284.000	263.973
TOTAL³	16.450	32.263	64.477	82.563	5.365.550	2 060.763

(source : Blanc *et al*, 2003).

3. TABLE 3: CENTRAL AFRICA : GENERAL STATISTICS

Characteristics	Cameroon	Congo	Gabon	Equatorial Guinea.	CAR	DRC	Chad
Country area (Km ²)	475.440	342.000	267.670	28.050	622.980	2.345.410	1.284.000
Range area (% of the country):	37%	73%	86%	54%	35%	39%	21%
Protected area coverage (% of the country)	8%	6%	15%	17%	13%	5%	9%
Protected distribution area (% of known range)	13%	5%	14%	23%	28%	10%	12%
CITES Appendix	I	I	I	I	I	I	I
Listing Year	1989	1989	1989	1989	1989	1989	1989

(source : Blanc *et al*, 2003).

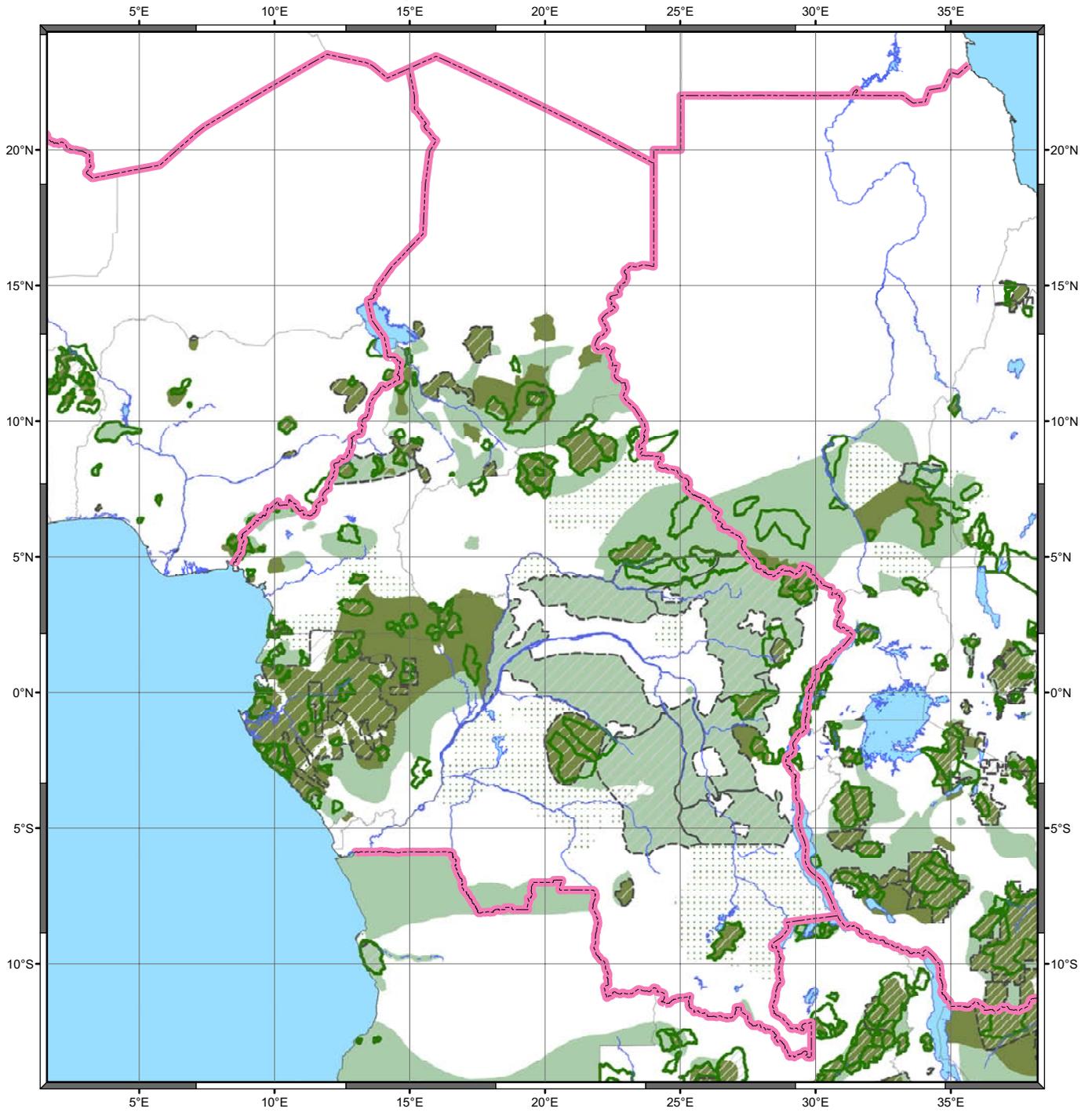
² The totals of the **Definite, Probable, Possible and Speculative** categories are based on an extrapolation of variances. Thus, the totals do not necessarily match the exact number within each category.

³ Idem

7.2 APPENDIX 2 ELEPHANT DISTRIBUTION MAPS

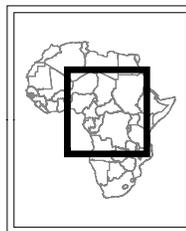
Central Africa

Elephant Range, Input Zones and Protected Areas

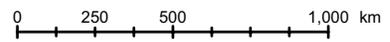


Legend

	International Boundary	Elephant Range	
	Regional Boundary		Known
	Rivers and lakes		Possible
	Protected Areas		Doubtful
	Input Zones		



Sources:
African Elephant Database
Digital Chart of the World

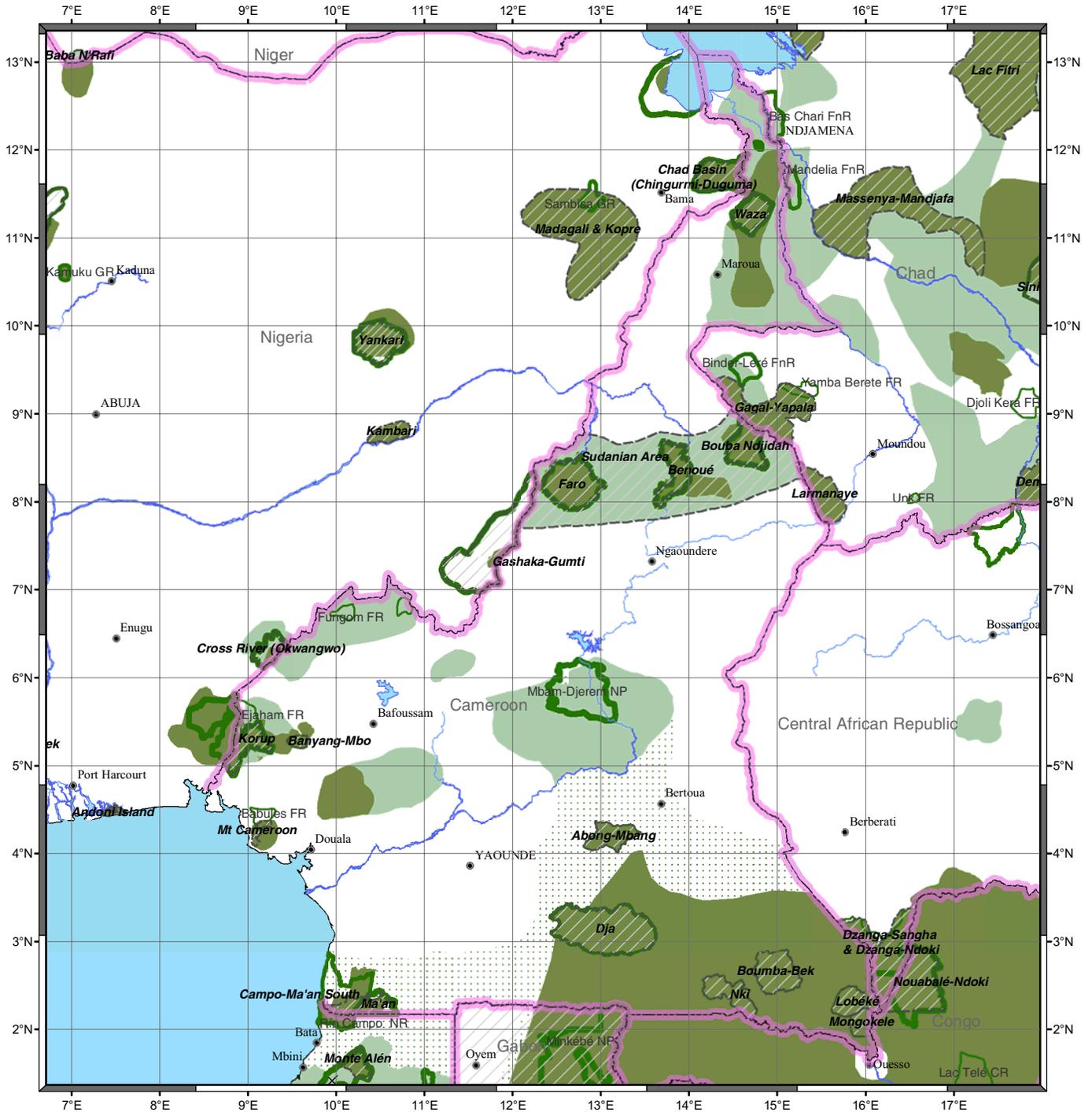


Geographic Projection
Scale is indicative only



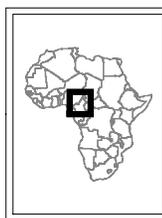
Cameroon

Elephant Range, Input Zones and Protected Areas

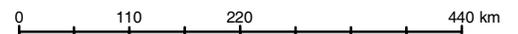


Legend

	International Boundary	Elephant Range		Known
	Towns		Possible	
	Rivers and lakes		Doubtful	
	Protected Areas		Sighting/sign	
	Input Zones			



Sources:
African Elephant Database
Digital Chart of the World

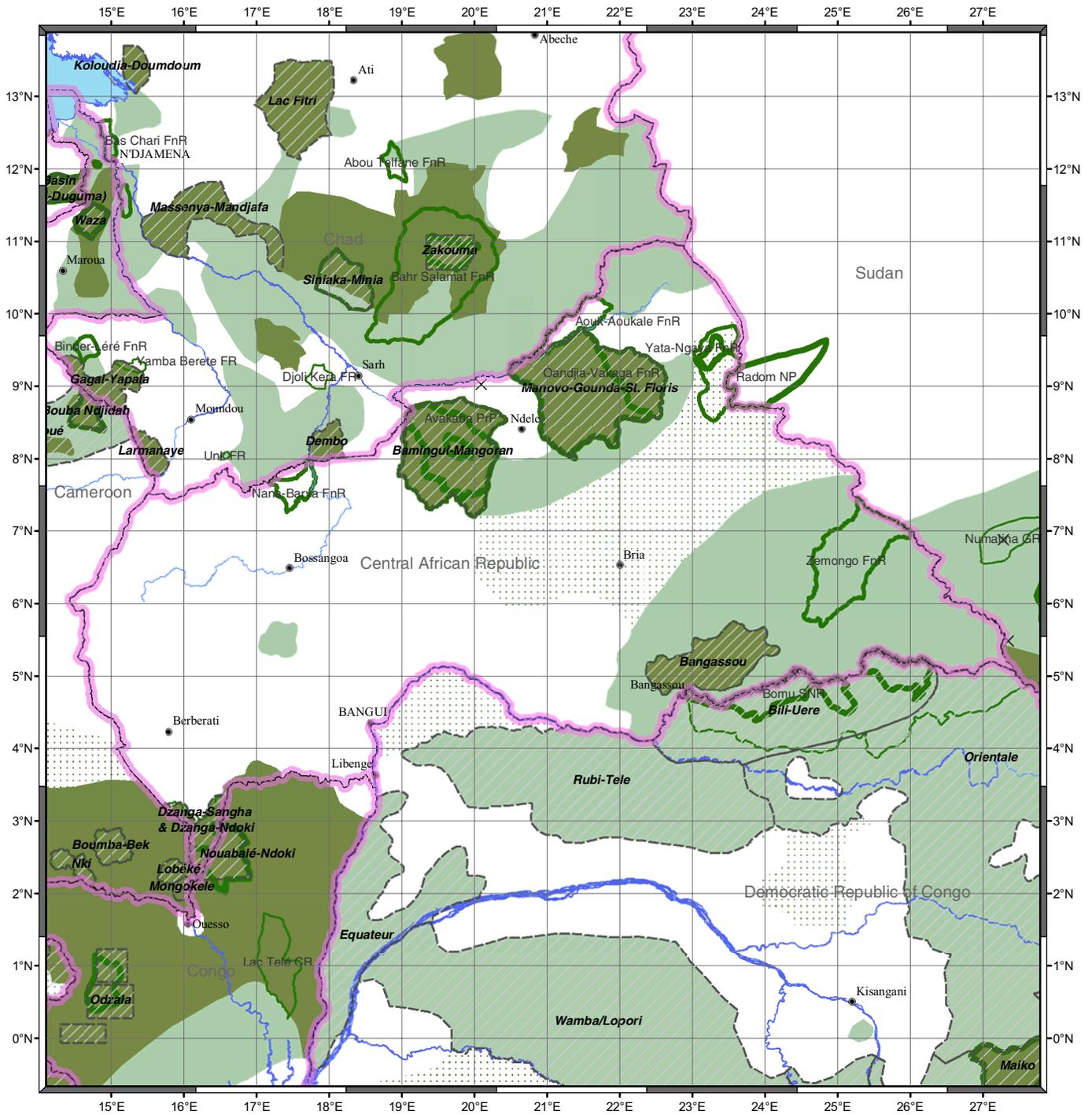


Geographic Projection
Scale is indicative only
For Key to protected area
abbreviations turn to Appendix I

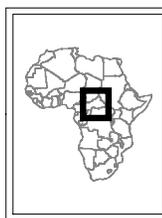


Central African Republic

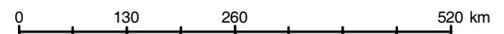
Elephant Range, Input Zones and Protected Areas



Legend	
	International Boundary
	Towns
	Rivers and lakes
	Protected Areas
	Input Zones
Elephant Range	
	Known
	Possible
	Doubtful
	Sighting/sign



Sources:
African Elephant Database
Digital Chart of the World



Geographic Projection
Scale is indicative only
For Key to protected area
abbreviations turn to Appendix I

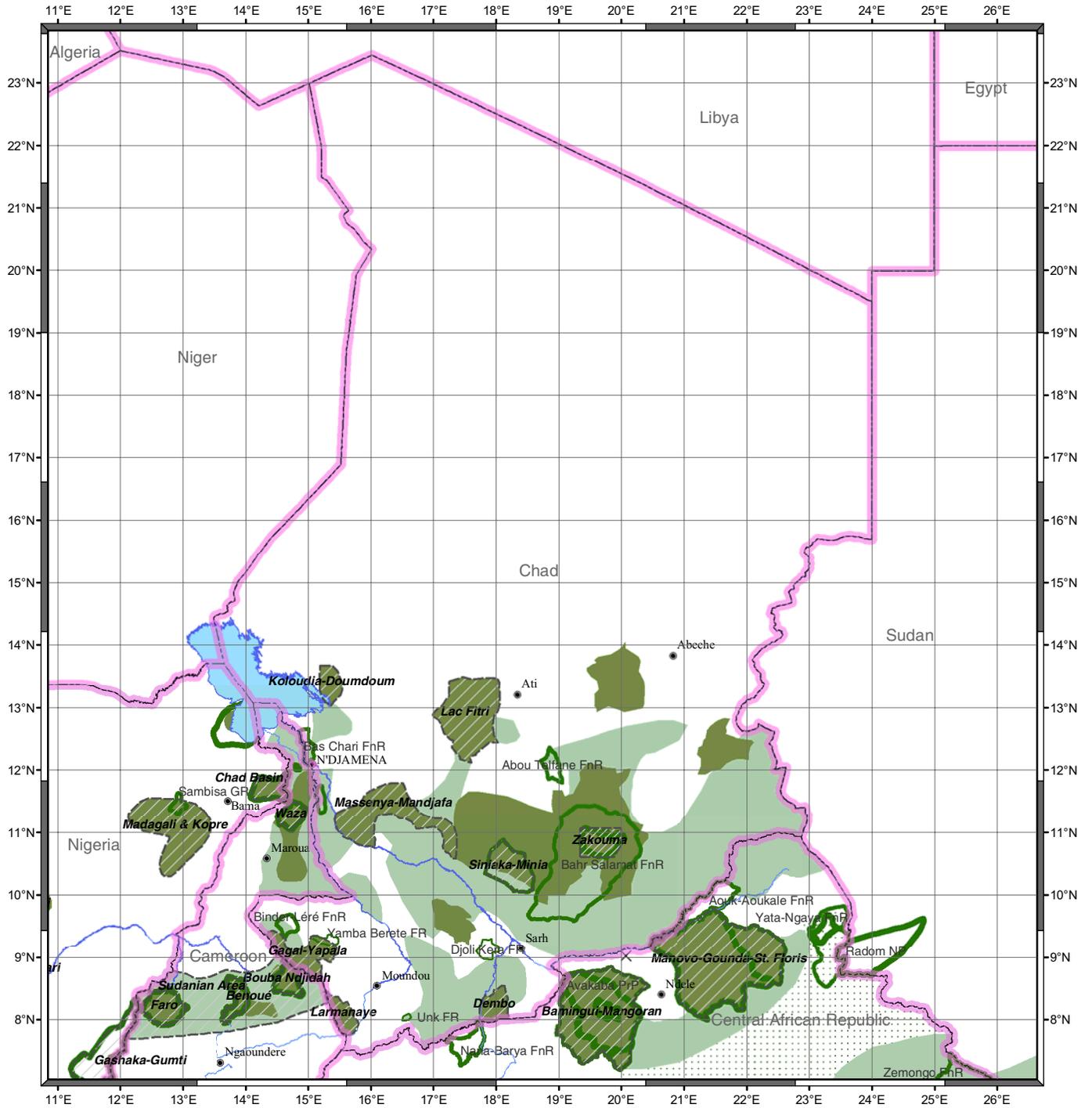
IUCN/SSC



African Elephant
Specialist Group

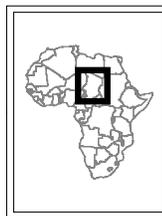
Chad

Elephant Range, Input Zones and Protected Areas

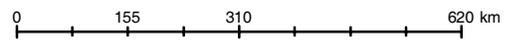


Legend

	International Boundary	Elephant Range	
	Towns		Known
	Rivers and lakes		Possible
	Protected Areas		Doubtful
	Input Zones		Sighting/sign



Sources:
African Elephant Database
Digital Chart of the World

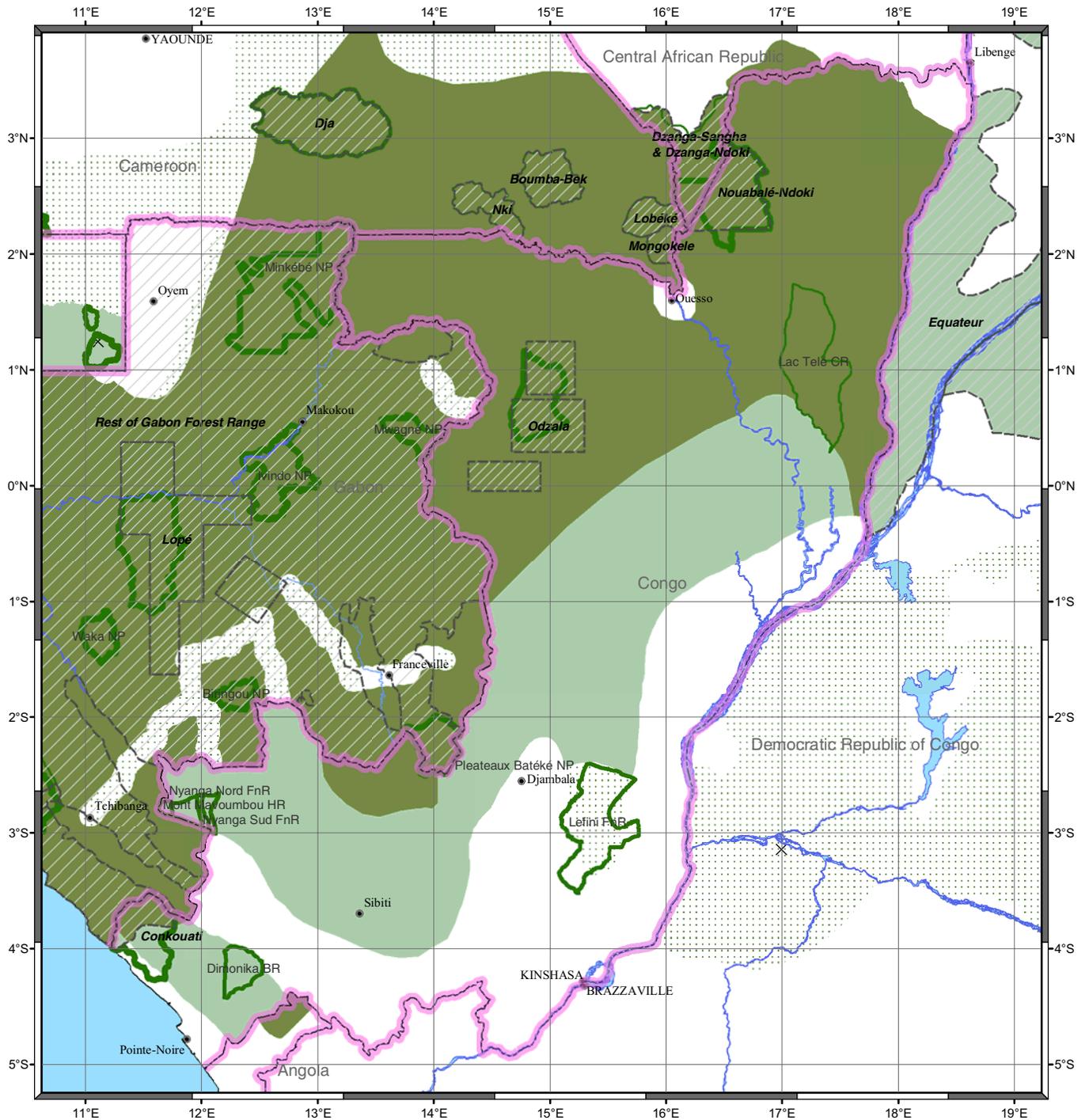


Geographic Projection
Scale is indicative only
For Key to protected area
abbreviations turn to Appendix I



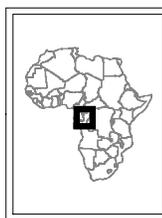
Congo

Elephant Range, Input Zones and Protected Areas

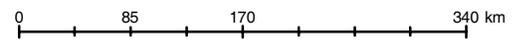


Legend

International Boundary	Elephant Range
Towns	Known
Rivers and lakes	Possible
Protected Areas	Doubtful
Input Zones	Sighting/sign



Sources:
African Elephant Database
Digital Chart of the World

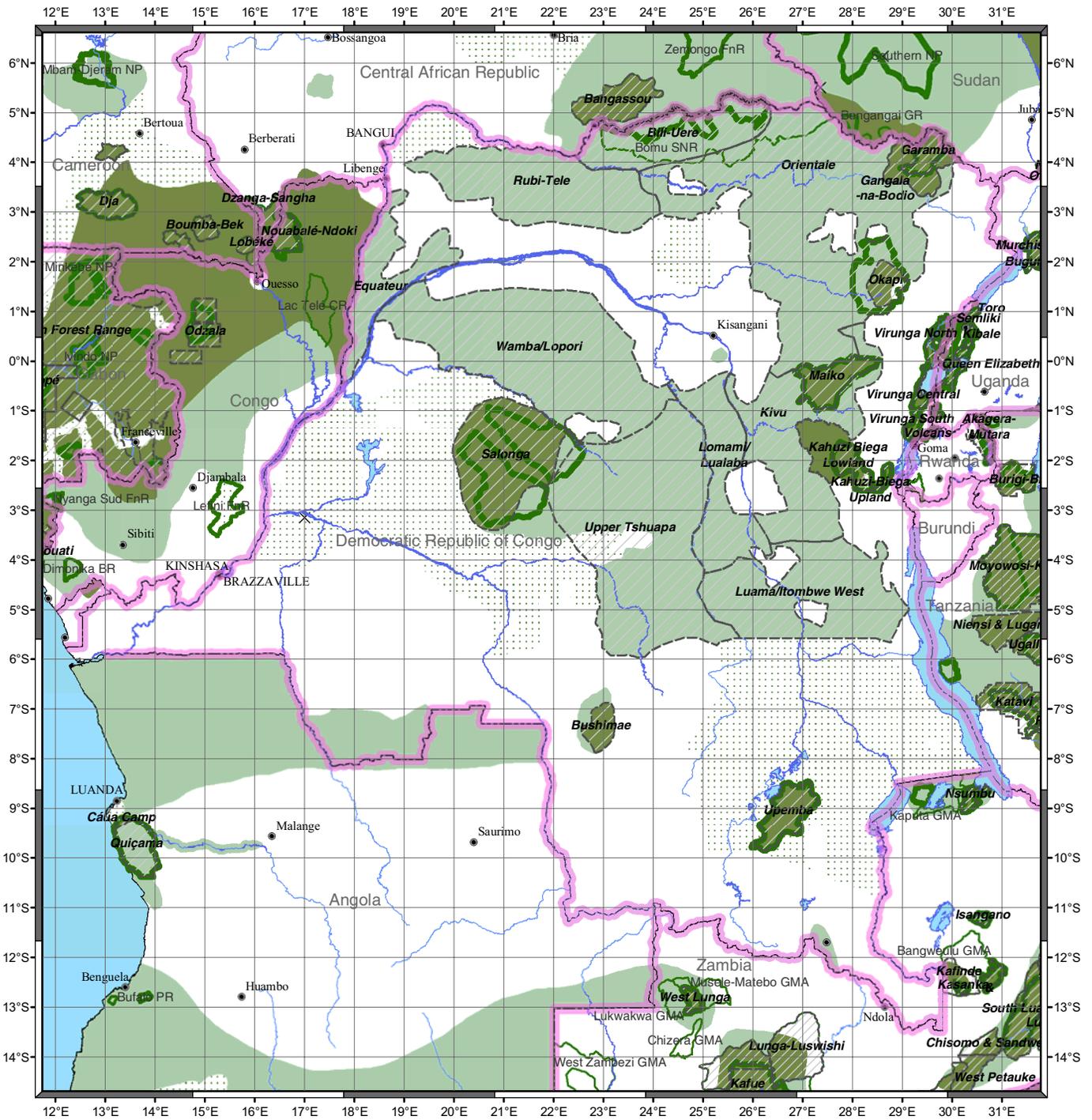


Geographic Projection
Scale is indicative only
For Key to protected area
abbreviations turn to Appendix I

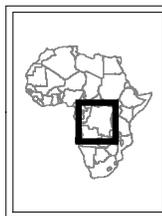


Democratic Republic of Congo

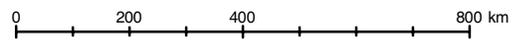
Elephant Range, Input Zones and Protected Areas



Legend	
	International Boundary
	Towns
	Rivers and lakes
	Protected Areas
	Input Zones
	Elephant Range Known
	Elephant Range Possible
	Elephant Range Doubtful
	Sighting/sign



Sources:
African Elephant Database
Digital Chart of the World

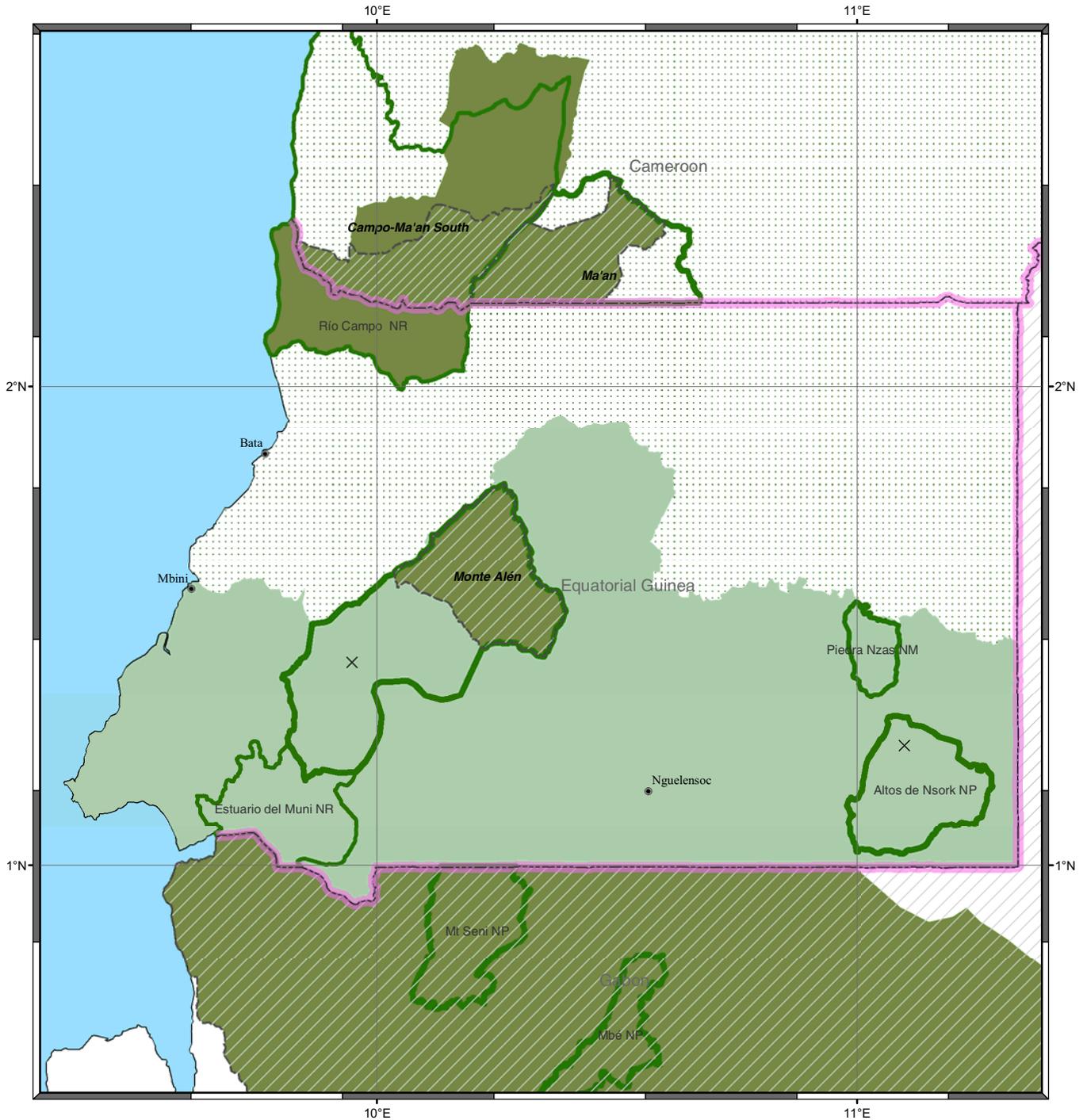


Geographic Projection
Scale is indicative only
For Key to protected area abbreviations turn to Appendix I



Equatorial Guinea

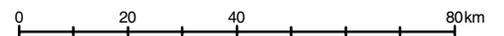
Elephant Range, Input Zones and Protected Areas



Legend	
	International Boundary
	Towns
	Rivers and lakes
	Protected Areas
	Input Zones
Elephant Range	
	Known
	Possible
	Doubtful
	Sighting/sign



Sources:
African Elephant Database
Digital Chart of the World

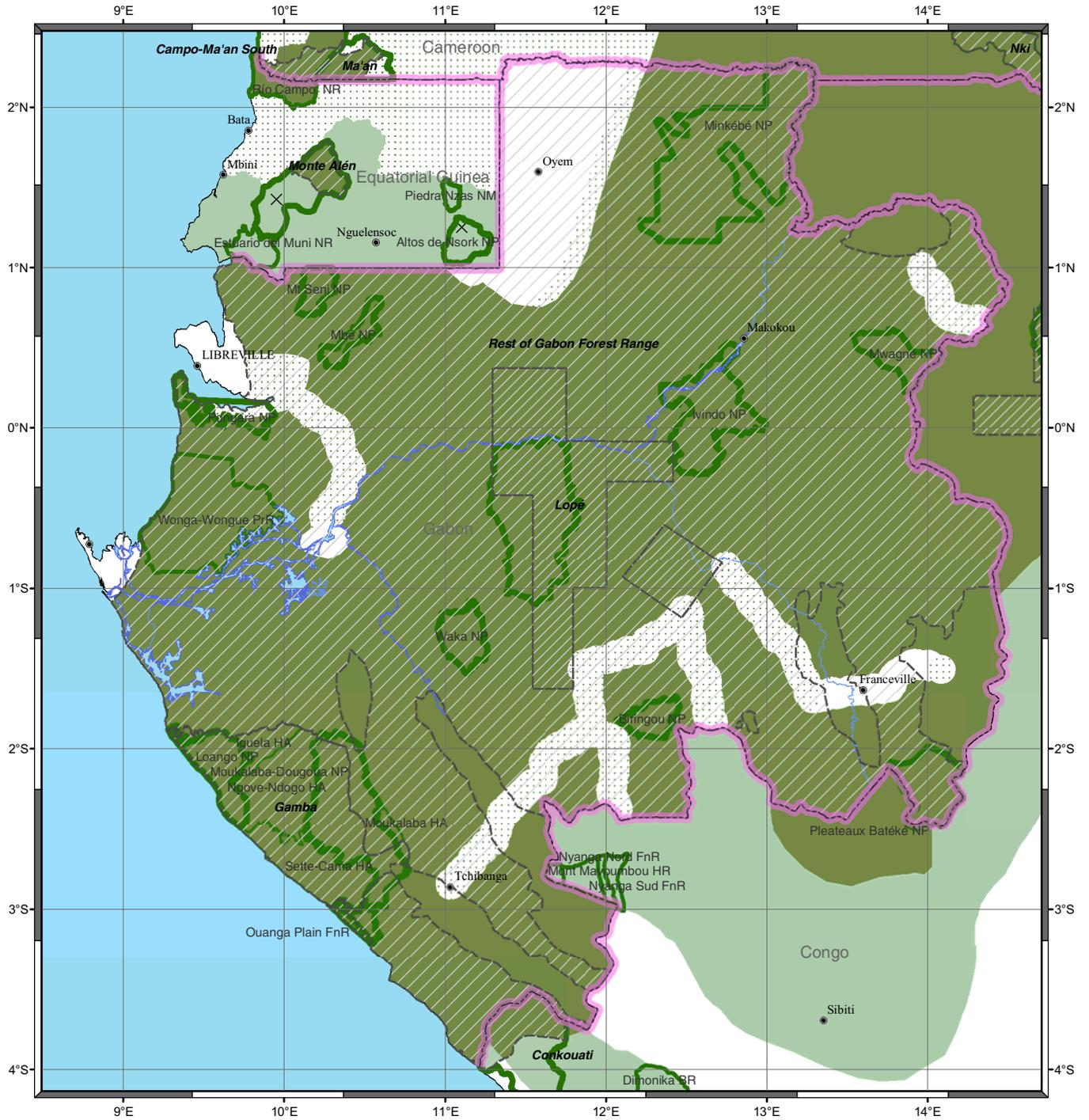


Geographic Projection
 Scale is indicative only
 For Key to protected area
 abbreviations turn to Appendix I



Gabon

Elephant Range, Input Zones and Protected Areas

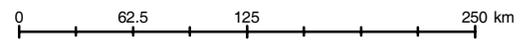


Legend

International Boundary	Elephant Range
Towns	Known
Rivers and lakes	Possible
Protected Areas	Doubtful
Input Zones	Sighting/sign



Sources:
African Elephant Database
Digital Chart of the World



Geographic Projection
Scale is indicative only
For Key to protected area
abbreviations turn to Appendix I



7.3 APPENDIX 3. LOGICAL FRAMEWORK

LOGICAL FRAMEWORK OF THE CENTRAL AFRICAN ELEPHANT CONSERVATION STRATEGY

VISION

A Central Africa that conserves and uses biodiversity in a sustainable manner

GOAL

Ensure the conservation and sustainable management of elephants and their habitats in central Africa

OBJECTIVE 1 REDUCE ILLEGAL KILING OF ELEPHANTS AND TRADE IN ELEPHANT PRODUCTS

Indicators :

- 80% decrease in the volume of seized ivory originating from the sub-region, according to data from TRAFFIC / ETIS (10 years)
- 80% decrease in the number of cases of illegal killing of elephants compared to baseline data provided by MIKE (10 years)

Result 1.1 The legislative and regulatory framework is strengthened

Indicator :

- Review and harmonization of legal texts is completed after 10 years

- Action 1.1.1* Review national legislation to adapt it to international conventions and current realities
- Action 1.1.2* Adopt regulatory texts that define the procedures for participatory management and the equitable sharing of profits with local communities
- Action 1.1.3* Make use of the findings and conclusions of studies already conducted in the sub-region on the harmonization of legislation

Result 1.2 Illegal trade in elephant products is reduced in the sub-region

Indicators :

- The proportion of ivory and other elephant products seized by Central African Range States compared to the ivory and other elephant products originating from the sub-region that are seized by other countries (as per ETIS records) has increased from 5% to 50% in 10 years
- A 95% reduction in ivory sales outlets and manufacturing workshops compared to the baseline situation (current situation)
- Research carried out on the dynamics and impact of elephant meat trade in the countries involved (3 years), and recommendations to control this trade implemented in the countries concerned (5 years)

- Action 1.2.1* Ensure the effective control of sale of elephant products and by-products
- Action 1.2.2* Train and equip law enforcement personnel both within and at country borders

- Action 1.2.3* Conduct research activities on the illegal trade in elephant products in collaboration with OCFSA, Lusaka Agreement Task Force, CITES, TRAFFIC, Interpol, WCO etc.
- Action 1.2.4* Appeal to the supreme authorities in the sub-region to protect elephants addressing, inter alia, the issue of controlling the circulation of firearms
- Action 1.2.5* Encourage private sector involvement in elephant conservation activities
- Action 1.2.6* Launch a diplomatic campaign aimed at citizens of consumer countries of elephant products. Measures must be taken within countries in the sub-region and must be aimed primarily at foreign nationals, tourists, diplomatic / commercial missions, logging companies etc.
- Action 1.2.7* Conduct studies on the impact of the elephant meat trade in the sub-region

Result 1.3

The institutional framework is reinforced

Indicators :

- 80% of each 10,000 hectares in protected areas and other key elephant ranges in central Africa, have trained and well equipped rangers
- 80% of known elephant range is under a development plan compatible with elephant conservation after 10 years
- Each national wildlife management authority possesses an operational Law Enforcement Monitoring (LEM) system, which complies with MIKE system standards
- An effective and operational monitoring system and official ivory stock management system transmitting reports to ETIS, are in place in each country (5 years)

- Action 1.3.1* Establish an inter-ministerial consultation process on elephant management
- Action 1.3.2* Develop and implement national elephant conservation strategies
- Action 1.3.3* Bring the central Africa elephant conservation strategy in line with the Convergence Plan of the Yaoundé Process and monitor its implementation
- Action 1.3.4* Build and reinforce synergies between various relevant governmental and sub-regional institutions, initiatives and technical partners active in the sub-region
- Action 1.3.5* Establish a steering and monitoring committee for the implementation of the central Africa elephant conservation strategy
- Action 1.3.6* Encourage Range States to include a budgetary heading in their national budgets for the development of national strategies and the implementation of the sub-regional strategy
- Action 1.3.7* Train staff in the various aspects of monitoring (elephant population surveys, ivory stock management, law enforcement, etc)
- Action 1.3.8* Provide information to ETIS on a regular basis concerning seizures of ivory and other elephant products
- Action 1.3.9* Centralize, strengthen and monitor legal procedures relating to illegal killing of elephants
- Action 1.3.10* Implement effective ivory stock management systems
- Action 1.3.11* Deploy monitoring personnel on the ground

OBJECTIVE 2

MAINTAIN AND/OR RESTORE CONNECTIVITY BETWEEN CENTRAL AFRICAN ELEPHANT POPULATIONS

Indicators :

- On the basis of the most recent estimates taken from the African Elephant Database, elephant ranges in central Africa have not decreased (10 years)
- On the basis of the most recent estimates taken from the African Elephant Database, the level of elephant range fragmentation in central Africa has not increased (10 years)

Result 2.1 Sustainable agro-pastoral systems are developed and implemented around protected areas

Indicators :

- Only areas designated for agro-pastoral activities are being exploited for this purpose (10 years)
- At least one pilot project has been launched in each ecosystem (10 years)
- 0.1 % of farmers practice new agro-pastoral methods

Action 2.1.1

Identify and map areas with unsustainable agro-pastoral systems

Action 2.1.2

Carry out research into sustainable agro-pastoral methods and techniques

Action 2.1.3

Integrate protection methods against elephant damage into existing or proposed systems

Result 2.2 Extractive techniques with minimal adversel impact on elephants are practised in key industries (logging, mining, oil prospecting)

Indicators :

- 95% of relevant private sector operators working in elephant habitats comply with development plans and apply techniques with minimal impact (10 years)

Action 2.2.1

Determine operating standards and develop research projects.

Action 2.2.2

Draft management plans for concessions

Action 2.2.3

Train staff environmentally sensitive practices

Action 2.2.4

Establish partnerships between the private sector and elephant conservation organizations

Action 2.2.5

Develop a system to monitoring compliance and effectiveness

Result 2.3 National land use plans that take into account maintaining connectivity between elephant populations in central Africa developed

Indicators :

- All the countries of elephant range in central Africa have initiated a process of developing national land use plans (3 years)
- 100% of land use plans in trans-border areas are harmonized 2 years)
- On the basis of the most recent estimates taken from the African Elephant Database , 20% of elephant distribution area in central Africa is covered by an official land use plan (10 years)

Action 2.3.1

Identify corridors between elephant ranges

Action 2.3.2

Draft a provisional land use plan to be used as a basis for discussion

Action 2.3.3

Discuss land use plan with relevant stakeholders

Action 2.3.4

Organize awareness-raising campaigns and monitor the effective implementation of the land use plans

Action 2.3.5

Strengthen trans-border cooperation in order to protect identified cross-border elephant corridors and ranges

Action 2.3.6

Integrate into the land use plans measures to fight desertification

OBJECTIVE 3 IMPROVE KNOWLEDGE OF ELEPHANT POPULATIONS AND THEIR HABITATS

Indicators :

- On the basis of the most recent estimates taken from the African Elephant Database, the proportion of the “known” category of elephant range has reached 80% in 10 years.

Result 3.1 The abundance and distribution of elephant populations are known and monitored

Indicators :

- All elephant populations in the “known” range have been identified and mapped (10 years)
- Reliable estimates of elephant densities exist for 80% of “known” populations in the sub-region (10 years)
- Elephant censuses have been carried out in 100% of national parks in elephant range and MIKE sites in 5 years

- Action 3.1.1* Define inventory protocols
- Action 3.1.2* Carry out surveys
- Action 3.1.3* Centralize data from previous research
- Action 3.1.4* Mobilize funds
- Action 3.1.5* Mobilize human resources

Result 3.2 The dynamics of elephant populations are known and monitored

Indicators :

- Reliable estimates exist for birth and mortality rates in at least 8 representative sites in the sub-region (within 10 years)
- Research on genetic variability and gene flow models are ongoing in at least 8 representative sites in the sub-region (10 years)

- Action 3.2.1* Identify research activities and priorities
- Action 3.2.2* Develop terms of reference for the individual studies to be carried out (mortality, breeding and growth rates, elephant impact on habitats, etc.)
- Action 3.2.3* Establish a scientific steering committee for the studies
- Action 3.2.4* Carry out appropriate research activities

Result 3.3

Elephant movements are known

Indicator:

- Existing and potential connections between targeted populations are known (5 years)

Action 3.3.1 Carry out appropriate research activities.

Result 3.4

Interaction between elephants and their environment is managed

Indicators :

- Distribution of conflict incidents known and mapped in each country (5 years)
- Baseline information (location, origin, nature, impact and frequency of conflict) exists for 50% of zones around protected areas in the elephant range of each country, and local populations living in these sites have received training in conflict-mitigating techniques (5 years)
- Tried and tested methods contribute to a decrease of at least 50% of conflict incidents in these sites (10 years)

Action 3.4.1 Conduct studies on the impact of conflict (its origin, nature, scale and distribution).

Action 3.4.2 Carry out research on preventive and active methods, and test existing methods of crop protection at different conflict sites.

Action 3.4.3 Study the impact of logging and mining on elephants.

Action 3.4.4 Investigate the potential for community-based elephant tourism and other potential strategies to improve benefits to affected communities

Action 3.4.5 Investigate potential of mitigating human-elephant conflict through political and legal instruments, at the site, national and international levels

Action 3.4.6 Train local wildlife authorities and affected communities in methods of mitigating human-elephant conflict

Action 3.4.7 Make use of conflict management tools and products developed by the AfESG's Human-Elephant Conflict Group

Action 3.4.8 Evaluate the sustainability of elephant sport hunting in Cameroon, in order to assess the feasibility of expanding of this kind of activity elsewhere in central Africa in the future.

Indicator :

- Opinion polls indicate an improvement in understanding of the importance of elephant conservation (polls year 1 and year 8)

Result 4.1**The wider public is aware and informed of the importance of elephant conservation****Indicators :**

- Elephant-related wildlife crime incidents have decreased by 50% in 5 years in monitored sites (information source : LEM systems)
- Public television channels in each country broadcast programmes regarding elephant conservation at least 4 times per year (10 years)
- Information campaigns have reached 50% of local communities living in or around important elephant ranges (10 years)

- | | |
|---------------------|--|
| <i>Action 4.1.1</i> | Work with community organizations/associations to launch awareness-raising campaigns |
| <i>Action 4.1.2</i> | Establish information and awareness-raising programmes about elephants in rural areas through school visits, films and plays |
| <i>Action 4.1.3</i> | Encourage media interest in elephant conservation and collaboration in producing features on elephants |
| <i>Action 4.1.4</i> | Procure necessary equipment and logistical arrangements for awareness-raising campaigns |
| <i>Action 4.1.5</i> | Mobilize necessary funds |
| <i>Action 4.1.6</i> | Build capacity of media presenters to raise awareness on elephant conservation issues |
| <i>Action 4.1.7</i> | Disseminate information about relevant legislation to the wider public |

7.4 APPENDIX 4. LIST OF PARTICIPANTS IN THE LIMBÉ WORKSHOP (29 AUGUST - 2 SEPTEMBER 2005).

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Equatorial Guinea	Monsieur Santiago BIYANG Assistant to the Director General of the Environment BP 840 Malabo – Equatorial Guinea (240)241714 (240)233938 Email proeqg@intnet.gq	Monsieur IKAKA Deogracias MIKE National Officer, Republic of Equatorial Guinea Fax : (240) 092905 Email : ikakanzamio@yahoo.fr
CITES MIKE	Nigel Hunter Director CITES MIKE Programme c/o IUCN EARO	Mr Sebastien LUHUNU Sub-regional Support Officer CITES MIKE Programme C/o IUCN ROCA

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CITES BUSHMEAT WORKING GROUP	Mr Marcellin AGNAGNA Regional Coordinator CITES Bushmeat Working Group c/o IUCN - BRAC BP 5506 Yaoundé Cameroon Email: marcelinagnagna@yahoo.fr	
CITES SECRETARIAT	Represented by Nigel Hunter	
AfESG	Dr. Holly T. Dublin Chair IUCN/SSC African Elephant Specialist Group (AfESG) P.O. Box 68200, 00200 Nairobi, Kenya Email: holly.dublin@ssc.iucn.org	Mr. Leo Niskanen Senior Programme Officer IUCN/SSC African Elephant Specialist Group (AfESG) P.O. Box 68200, 00200 Nairobi, Kenya Email: leo.niskanen@ssc.iucn.org
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IUCN West Africa	Lamine SEBOGO West African Office 01BP 1618 Ouagadougou 01, Niger tel : (236)50331357 email : lamine.sebogo@uicn.org	
Mengamé Sanctuary	Ndeng Ateba Project to create the Mengamé Cross-Border Gorilla Sanctuary Tel : (231) 514346	