



**Independent Monitoring of the Implementation of
the Expanded Programme of Work on Forest
Biological Diversity
of the
Convention on Biological Diversity
in Uganda**



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Cover Photo:

Fringes of Mabira Central Forest Reserve.

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EXECUTIVE SUMMARY

Government of Uganda (GoU) is a signatory to the Convention on Biological Diversity (CBD) that was ratified in 2002 by more than 188 states and other international Organisations. The CBD is intended to ensure that there is sustainable use and management of biological diversity in each participating country or party.

After the signing of the CBD, it was realised that the CBD in its original form was too broad and would be difficult to implement effectively at the country (party) level. Therefore, it was agreed through a series of conferences with member states referred to as Conference of Parties that an Expanded Programme of Work (POW) on the CBD be developed to provide guidance to the implementation of the various aspects of the CBD and National (Party) Focal Points be established to guide the implementation of the Expanded Programme of Work in each member state (party).

Following the 6th COP meeting, a number of CBD-POW initiatives were undertaken, including one on Forest Biological Diversity in several countries. In order to monitor the implementation of the CBD-POW initiatives in the various countries, independent Non-Governmental Organisations (NGOs) were selected by the Global Focal Points of CBD to monitor different aspects of the CBD. In this regard, the National Association of Professional Environmentalists (NAPE), a NGO was selected by the Global Forest Coalition (GFC) to act as Independent Country Monitor for the Implementation of the Expanded Programme of Work on Forest Biological Diversity of CBD. NAPE initiated work on this monitoring exercise in May 2007. This work is projected to last a period of one year.

In order to fulfil its mandate, NAPE held several consultative meetings and workshops with key government actors, civil society organisations, the academia and local communities living in the vicinity of selected Protected Areas (PAs) to come up with a monitoring tool that was acceptable to the stakeholders, adapted to the country's situation and one that would effectively address the country's adherence to CBD. A monitoring tool was therefore developed and administered in the country among the key actors in the forest sector.

This draft report contains preliminary findings, conclusions and recommendations to the monitoring exercise. **It was found out that while some aspects of the expanded programme of work on forest biological diversity of CBD were being done, most of them were being implemented essentially as good practices for sustainable use and management of forest resources, but not entirely as part and parcel of the expanded programme of work.** The concept of CBD and or CBD-POW was new to majority of the Ugandan government officials and civil society organisations engaged in nature related activities, except for those officials and government institutions directly mandated with the implementation of the CBD-POW in the country such as the National Environment Management Authority (NEMA), which is the country's CBD Focal Point. NEMA is working in collaboration with NEMA such as National Forest Authority (NFA), Forest Support Services Division (FSSD), Wetlands Inspection Division (WID), Ministry of Water and Environment (MWE), Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and the Ministry of Finance, Planning and Economic Development (MFPED). MFPED is the national focal point for access CBD funding.

Implementation of the CBD-POW is constrained in the country by the limited financial and human resources, insufficient information concerning the types, scales and extent of Forest Biological Diversity in terms of species population and genetic (DNA) variability, including socio-economic and cultural aspects and the role of indigenous knowledge in use and sustainable management of forest biodiversity. This is further complicated by the limited

awareness generally in Uganda concerning the expanded programme of work on forest biological diversity of the CBD.

While there are restoration initiatives for forests in the country, the manner in which the initiatives are implemented does not explicitly address all species found in forest ecosystems. They tend to focus on afforestation with the hope that there would be a trickle-down positive effect on the other components of the forest ecosystem and biodiversity.

There is need to further support the development of technical and financial capacity of the institutions engaged in the implementation of the CBD in Uganda, if the project targets are to be met by 2015 as agreed at the 6th COP meeting.

There is also need for increased awareness among the actors and the general public in Uganda concerning the expanded programme of work on forest biological diversity of the CBD.



King Kintu's culturally managed natural forest in Mukono district

1.0. BACKGROUND

The Convention of Biological Diversity (CBD) is a protocol that was ratified by more than 188 parties in the world in 2002 that include countries and international organisation with the aim of protecting, preserving, sustainable utilisation and equitable sharing of biological resources in the world. The Convention through Conference of Party (COP) meetings agreed to develop thematic areas for the effective implementation of the CBD work referred to as the Expanded Programmes of Work (POW) on the CBD. Each thematic area was assigned to Global Focal Points to develop the guidelines and approaches to the implementation of the CBD-POW. Uganda is a signatory to the CBD and is therefore expected to adopt and implement the provisions of the CBD-POW in its national policies and programme objectives. National Focal Points to help in the promulgation of the CBD-POW provisions were established in the respective parties or countries.

As a follow-up, independent Non-Governmental Organisations (NGOs) have been identified in each respective country and mandated with the duty of monitoring the implementation of the Expanded Programme of Work (POW) on the CBD. In this regard, the National Association of Professional Environmentalists (NAPE), an environment advocacy NGO, was identified and selected by the Global Forest Coalition (GFC) to act as an Independent Country Monitor (ICM) for Uganda to monitor the country's implementation of POW on Forest Biological Diversity for the Convention on Biological Diversity (CBD). The independent monitoring process will last a period of one year commencing in April 2007 (*Annex V. Terms of Reference ToR*).

As an effort towards fulfilling the independent monitoring mandate, NAPE did the following:-

- 1 Held preliminary consultations to chart way forward for the independent monitoring process with key actors in the forest sub-sector in Uganda. These included National Environment Management Authority (NEMA), the National Focal Point institution in Uganda for the CBD and CBD Focal persons in the Forest Inspection Division (FID), National Forest Authority (NFA), Wetlands Inspection Division (WID), Ministry of Finance, Planning and Economic Development (MoFPED), Ministry of Water and Environment (MWE), Uganda Wild Life Society (UWS), Nature-Uganda, Forestry Working Group (FWG), IUCN, Makerere University Institute of Environment and Natural Resources (MUIENR) and Uganda Wildlife Authority (UWA). The Ministry of Finance, Planning and Economic Development (MFPED) is the national focal point for accessing CBD funds.
- 2 A draft monitoring tool was developed and discussed with the key actors and stakeholders with a view of coming-up with a monitoring tool that is acceptable and one that would adequately capture the constraints and levels of implementation of the CBD-POW in Uganda. Once completed, the tool was administered among the key actors and stakeholders to obtain their views and opinions on the implementation of the expanded programme of work on forest biodiversity of the CBD in Uganda. Based on the findings, suggestions and recommendations were made for improving the implementation of expanded programme of work on forest biological diversity of the CBD in the country.
- 3 Review of literature related to forest biodiversity in Uganda was done.

2.0. APPROACH

2.1. Separate Meetings with Key actors

Letters introducing the independent monitoring exercise of the expanded programme of work on forest biological diversity of the CBD in Uganda were sent to key actors in the forest sector. Letters seeking appointments for meetings to discuss the monitoring exercise at the respective key actor's offices were attached. Meetings were therefore held in the respective offices in the forest sector to discuss the purpose of the assignment and to chart way forward. It was agreed that consultative workshops (meetings) bringing together all the key actors be held to discuss and develop the monitoring tools in-line with the CBD-POW terms of reference. A draft monitoring tool based on the CBD-POW terms of Reference was developed and this formed the basis for further discussions (*Annex II*).

2.2. Discussions and Development of the Monitoring Tool by Key Stakeholders

The key actors in the forest sector were invited to participate in consultative workshops to discuss and develop further the monitoring tools based on a draft monitoring tool (*Annex II*). The participants discussed the tool's structure, content, its administration and how the whole monitoring process would be carried out. Participants in the workshops were concerned that the draft monitoring tool was too large and therefore difficult to implement in light of the tight schedules of the target groups. Despite this, it was agreed that the draft was good and captured every aspect of the CBD-POW Terms of Reference (ToR), but needed restructuring to scale it down without losing the gist of the ToR. It was also agreed that the draft form basis for probing during the administration of the final monitoring tool that was developed (*Annex I*). It was also agreed that the year 2002, when the CBD was ratified by member states, be a starting (reference) point for assessing the implementation of the expanded programme of work on Forest Biological Diversity of the Convention on Biological Diversity in Uganda. The monitoring exercise was designed to:-

- i. Assess the application of ecosystem approach to management of all types of forests; reduce the threats and mitigation of negative impacts on forest biological diversity; protect, recover and restore forest biological diversity; promote sustainable use of forest biological diversity; evaluate access and benefit sharing of forest genetic resources;
- ii. Enhance institutional enabling environment; assess the social economic failures and distortions that lead to decisions that result in loss of forest biological diversity; and assess levels of public participation, awareness and education on biological diversity;
- iii. Analyse biological diversity from forest ecosystem to global-scale and develop general classification of forests on various scales in order to improve the assessment of status and trends of forest biological diversity; improve knowledge on and methods for assessing the status and trends of forest biological diversity; improve the understanding of the role of forest biodiversity and ecosystem functioning; and improve the infrastructure for data and information management for accurate assessment and monitor global forest biological diversity.

Four consultative workshops were held in which the monitoring tool underwent several adjustments and transformation. The list of people, institutions and organisations consulted is annexed (*Annex IV*).

2.3. Literature Review

The monitoring team reviewed reports and literature obtained from the respective key actors regarding the general status of forest biodiversity, the environment and the implementation of the Convention on Biological Diversity (CBD) in Uganda. The literature was reviewed in light of the prevailing policy and legal provisions and frameworks, action plans and activity reports and

other relevant documents to assess the levels of implementation of the Expanded Programme of Work on Forest Biological Diversity of the CBD in Uganda.

2.4. Administration of Monitoring Tool

A final monitoring tool acceptable to the key actors both in government and civil society was drawn (Annex I). Information gathering based on the monitoring tool has already begun and is on-going. This information gathering involved(s) face-to-face interviews and discussions and corroboration of information via email with officials of the institutions (organisations) mandated with the conservation and management of forest resources in the country and Non-Governmental Organisations (NGOs) engaged in the preservation, conservation, use and management of forests and other forest resources. A list of individuals (institutions) and NGOs consulted (interviewed) is attached (*Annex IV*). The preliminary findings of the monitoring exercise are part of this first draft report.

2.5. Stakeholder Workshop

A stakeholder workshop is planned in which the final draft report will be discussed before a final report is prepared and submitted to Global Forest Coalition.

3.0. LITERATURE REVIEW

3.1. Geo-physical, environmental and socio-economic aspects of Uganda

The Republic of Uganda, located in east central Africa, covers a land area of 241 040 km² between latitudes 1° 30' S and 4° N and between longitudes 29° 30' and 35° E. It is bounded on the north by Sudan, on the east by Kenya, on the south by Tanzania and Rwanda, and on the west by the Democratic Republic of the Congo (FAO, 2005).

Physically, the country consists of a plateau, generally between 1,200 and 1,500m, dissected by numerous streams. In the west, this plateau is interrupted by an escarpment forming Lakes Edward and Albert, with the upthrust of the Rwenzori Mountains (5,110m) in the centre, between the lakes. In the extreme north the plateau extends across the Nile into the district of West Nile. The south-west is very hilly and higher than the rest of the country. In the east, along the border with Kenya, three high mountains, Elgon (4,321m), Kadam (3,068m) and Moroto (3,083m), dominate.

The Nile divides the country in two parts, flowing from Lake Victoria at Jinja through Lake Kyoga to the northern tip of Lake Albert, and then north to the Sudan. A significant proportion of the southern part of Uganda contains swamps.

The climate is tropical but mild because of the generally high altitude. The temperature ranges from about 16° to 29° C, with 1,000 to 1,800mm of rainfall over most of the country. Karamoja (in the extreme north-east) is a small zone that experiences less than 500mm of rainfall.

The country's land surface is comprised of 199,710 Km² of land and 36,330 Km² of open water surfaces, which includes swamps, rivers, and lakes (CIA, 2007)¹.

Uganda currently has a population of slightly more than 30 million and a population growth of 3.5% per annum (CIA, 2007). The country has substantial natural resources, including fertile soils, regular rainfall and sizeable mineral deposits of copper, cobalt and oil. It is an agriculture based economy that employs over 80% of the work force. Coffee and fish exports account for the bulk of export revenues. Since 1986, a number of policy reforms were undertaken aimed

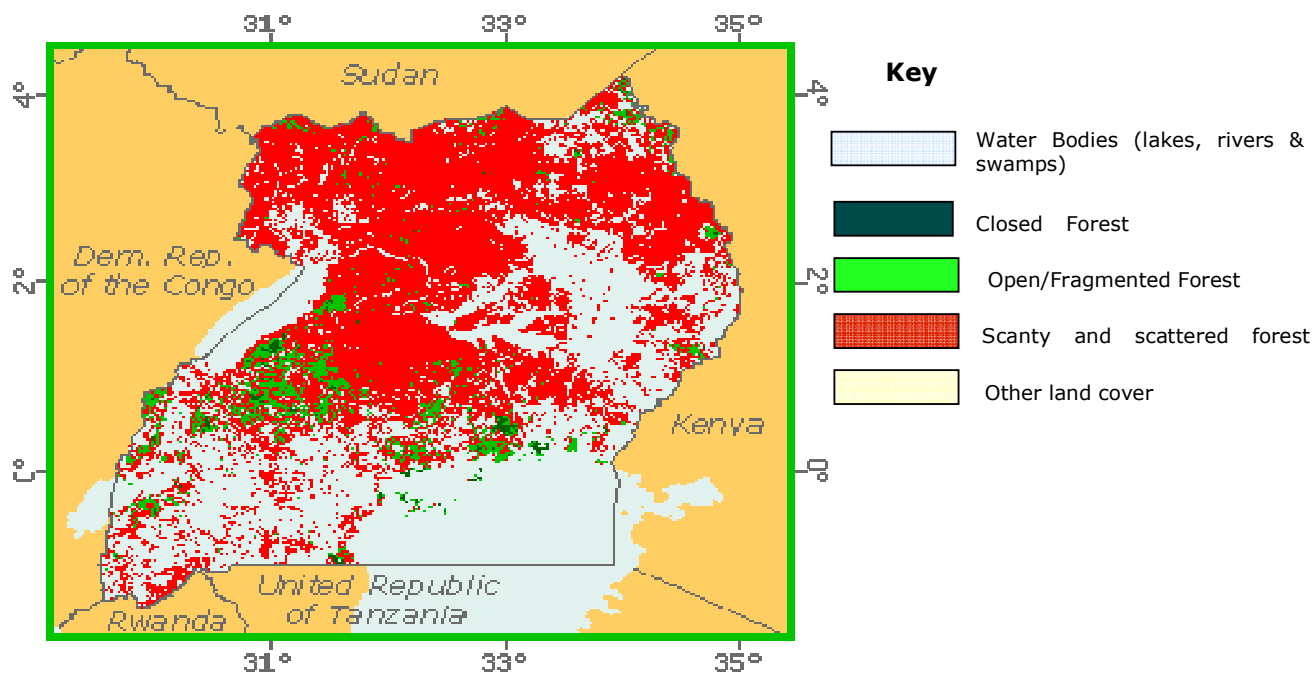
¹ CIA, 2007. *The World Factbook*.

at rehabilitating and stabilising the economy and boosting production and export earnings. Since then, the country registered economic growth rate ranging from 5% to 6% per annum. Despite this economic growth rate, majority of Ugandans, especially in the rural areas remain poor. The poverty levels in the country are closely linked to peoples' dependence on biomass (natural resources) for food, water, energy, housing, health, employment and income generation (Keizire and Mugenyi, 2006)². There is a high dependence on biomass resources in the country. Consequently, forest and forest biological diversity has continued to be lost since the 1980s, especially in privately managed forests ecosystems.

3.2. Forest Cover in Uganda

Forests cover an area of about 49,500 Km² and consist of Tropical Rain Forests and savannah woodlands. Seventy percent of these forests lie outside protected areas i.e. are privately owned with no specific legal framework for their management. This scenario exposes forests in the country to unabated overexploitation, encroachment and degradation that is consequently threatening biological diversity in the country. The greatest threats on biodiversity are attributed to draining of wetlands, deforestation, soil erosion, overgrazing, Water hyacinth infestation of water bodies, poaching of animals, pollution of soils and water bodies by urban, commercial and industrial wastes and other effluents. For example, in the last 15 years, the country has lost a total 1.3 million hectares forest cover (FAO, 2005)³. This is a loss at a rate of 86,700 hectares annually. It is predicted that at this rate Uganda's forest cover would be annihilated in the next 20 years. This loss is further complicated by the ownership (tenure) of forests in the country whereby 70% of the forests are privately owned with no specific legal framework that controls their use and management.

Map 1: Showing different forest zones in Uganda (FAO, 2005)



² Keizire, B. B and Mugenyi. (2006). Mainstreaming environment and natural resource issues in selected government sectors. Status, Considerations and recommendations. ACODE. Policy Research Series, No.21, 2006.

³ FAO, Global Forest Resources Assessment, 2005.

3.3. Policy and Legal Framework

Uganda has policy, legal and institutional frameworks that provide conducive environment for the implementation of the Convention on Biological Diversity (CBD) of which the country is a signatory. For instance government put in places the following policies and laws that govern biodiversity and other natural resources:-

- The National Policy for the Conservation and Management of Wetlands Resources 1994. This compliments the goals and objectives of the NEMP and maintains an optimum diversity of uses and users when using wetland resources.
- The 1995 Constitution of Uganda which in relation to environment assures all the people living in the country the fundamental right to an environment adequate for their health and well-being. It also provides for the development and management of the environment and natural resources sector in a sustainable manner and for the formulation of laws and regulation to this end.
- The National environment Act Cap 153 objective is to provide for sustainable management of the environment and establishment of the National Environment Management Authority (NEMA) as the principle agency in Uganda responsible for the management of the environment and for coordinating, monitoring and supervising all the filed of environment.
- Local Governments Act Cap 243 gives effect to the Decentralisation Policy and devolution of functions, powers and services from the Central Government to Local Governments. These functions include environmental management at local government level.
- The Land Act Cap 227 deals with the tenure, ownership and management of land and also protects natural resources from alienation.
- The Water Act, Cap 152 and Regulations provide for the use, protection and management of water resources and supply in a sustainable manner.
- The Uganda Wildlife Policy (1996) is aimed at conserving wildlife resources within the National Parks and other wildlife protected areas. It is also aimed at enabling the people of Uganda and the global community to derive ecological, economic, aesthetic, scientific and educational benefits of wildlife.
- The Wildlife Act, Cap 200, (1996) which provides for the sustainable management of wildlife. It also consolidates the laws relating to wildlife management and establishes a coordinating, monitoring and supervisory body, the Uganda Wildlife Authority (UWA).
- The National Gender Policy (1997) is intended to provide policy makers and key actors reference guidelines for identifying and addressing gender concerns when making development decisions.
- The Disaster Management and Preparedness Policy of 1999. This was revised in 2003 and what is currently in place are the National Policies on Internal Displacement of Persons and a National Policy on Conflict Resolution and Peace Building.
- The Water Policy (1999) was developed to sustainably manage and develop the water resources in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs of the present and future generations.
- Community Protected Areas Institution Policy (2000) is primarily for establishing a transparent, fair and just system that will represent and articulate community interests in Protected Areas (PAs) management and concerns on people's actions on PAs.
- The Uganda Forestry Policy (2001) which aims at establishing an integrated forest sector that achieves sustainable increases in the economic, social and environmental benefits from forests and trees by the people of Uganda, especially the poor and vulnerable.
- The Energy Policy for Uganda (2002) is intended to meet all energy needs of Uganda's population for social and economic development in an environmentally sustainable manner.

- National Agriculture Policy (2003) aims at providing farming systems and land use practices that conserve and enhance land productivity in an environmentally sustainable manner.
- National Forestry and Tree Planting Act (2003) provides for the conservation, sustainable management and development of forests for the benefit of the people of Uganda.
- National Environment Management Policy (NEMP) of 2004 which was developed to establish sustainable social and economic development that maintains or enhances environment quality and resource productivity on a long-term basis.
- The Fisheries Policy (2004) is aimed at ensuring increased and sustainable fish production and utilisation by properly managing the capture of fish, promoting aquaculture and reducing post harvest losses.
- Poverty Eradication Action Plan (PEAP) of 2004-05 to 2007-8 which is a macro-economic development framework that guides public action to promote economic growth and eradicate absolute poverty. The PEAP integrates the Millennium Development Goals (MDGs) in its policy framework and provides for the integration of environment and natural resources management in poverty eradication strategies. It also provides for decentralisation of the planning and management functions for natural resources and encourages private sector participation.



Natural Forest in Kyegegwa

While the country has very good policy, legal and institutional frameworks capable of protecting, conserving and using natural resources sustainably, often times these policy, legal and institutional provisions are flouted (abused) by both government itself and the local communities (users) living in the vicinity of the natural resources. Government's plans for a private sector led economic growth and development has attracted into the country several investors interested in commercial agricultural ventures that require large pieces of land since 1986. Property rates, particularly for privately owned land are continuously hiking making land a very expensive item for investors. In a bid to provide favourable conditions for investor interest, Government has continued to irregularly change land use of many Protected Areas (PAs) for commercial purposes, yet Government holds these PAs in trust for the citizens of Uganda as provided in the country's Constitution. Consequently, Government has violated its own forest conservation laws as follows:-

In 1997, Government degazetted 1,006 hectares of Namanve Forest Reserve for development of an industrial estate, ignoring public protests. To-date, there are no industries to warranty such an act.

In 2000, Government attempted to degazette 3,500 hectares of a 6,500 hectare protected forest on Bugala islands in Lake Victoria for the development of a Palm oil tree estate and refinery by BIDCO Oil Refineries Ltd. This was again against public protest. Despite the protests, the National Environment Management Authority (NEMA), the National Focal Point of the CBD, approved the project. BIDCO is still demanding for more forest land and Government is planning to amend the laws to facilitate the give-away of forests in the country held in trust to investors. This change of the country's constitution to promote purely economic activities is a violation of the existing good laws that enhance sustainable use of natural resources.

In 2001, the Government again attempted to degazette another forest, Butamira Forest Reserve, for the benefit of Kakira Sugar Works (KSW) Ltd. In spite of public protests and legal suits stopping land give-away, Government went ahead to give-away the land to KSW.

In 2002, Government again attempted to degazette Pian Upe Wildlife Reserve for commercial agricultural purposes.

In 2006, Government decided to give-away over 7100 hectares of forest land in Mabira to SCOUL for sugarcane growing against public protest, technical, professional and expert advice, which culminated in the resignation of the Board and senior technical staff of the National Forestry Authority (NFA).

Other forests currently under threat are Kitubulu in Entebbe, Buyaga (Lyantonde) Mpanga (Fort Portal), Nebbi, Arua, Ntungamo, Kitgum and Bobi, among others. A trend is therefore emerging in which Government irregularly seeks to change land use of forested land to accommodate the desires and interests of private developers against all tenable advice.

Government, in collaboration with private sector and civil society, is renowned to spend substantial resources (material, financial & human) in the development of protected forest zones, promoting tree planting and evicting encroachers on protected forest lands countrywide (e.g. Namanve, Mabira & Kibaale), but yet Government is the very one that turns around to destroy the very forests it has spent resources to protect and develop.

Whereas, the role of investors in the economic development of a country is appreciated, there is need for a judicious mix and balancing of development initiatives, if that sustainable development the country craves for is to be achieved. A systematic give-away of gazetted forests without proper EIA and mitigation strategies is bad and will obviously have detrimental impacts on the protected forests, present a challenge to natural resources management and raises several legal, technical, economic, ethical and ecological concerns.

Some of the investment projects seeking the degazettement of Protected Areas in Uganda are actually financed by the World Bank, African Development Bank, among other donors and international finance institutions. Cases in point are BIDCO Palm Oil Project on Bugala Islands on Lake Victoria, SCOUL, Kakira Sugar Works, etc.

It is unlikely that change of land-use in protected areas (forests) for private commercial interests will benefit communities living in the proximity of such lands or help meet the Millennium Development Goals (MDGs), because there is sufficient evidence in the country that change of land-use of gazetted areas to commercial purposes does not necessarily eradicate poverty among the communities living in the vicinity. Instead, exploitative conditions of the community are prevalent with little or no positive impact on the community's well being.

Change of land use in gazetted forests negatively affects biological diversity, deprives surrounding communities access to natural resources and alters the micro- and macro-climate of the area, and hence, the overall environment. Also, clearing the natural forests would lead to reduction in carbon sequestration (carbon absorption), thus causing increased amount of

carbon-dioxide in the atmosphere and increased global warming, a problem that has already hit Africa.

Article 237(2)(b) of the 1995 Constitution introduced the public trust doctrine whereby protected natural resources such as forests are not owned by Government, but are held in trust by Government as custodian and guarantor of people's interests. This is reinforced by *Section 45(4)* of the Land Act that compels central and local government not to lease-out or otherwise alienate natural resource referred to in the aforementioned provisions. Therefore, any proposal to change land use of protected areas (e.g. forests) in the country is illegal and an abuse of the Ugandan Constitution, since it negates the protection awarded to areas held as public trust property.

Government is a signatory of international conventions, protocols, declarations, treaties, etc. that demand it to preserve, protect and ensure sustainable utilisation of natural resources such as the Ramsar Convention, Convention on Biological Diversity (CBD), United Nations Convention on Combating Desertification (UNCCD), Convention on International Trade in Endangered Species (CITES), United Nations Convention on Climate Change (UNCCC), Convention on Hazardous Wastes, Law of the Sea, Marine Life Conservation, Ozone Layer Protection, etc. which if not abided to is tantamount to a contravention of International Law.

4.0. PRELIMINARY RESULTS OF THE MONITORING EXERCISE

While some aspects of the CBD-POW on forest biodiversity are already being implemented in the country, they are not being implemented as part and parcel of the expanded programme of work of the CBD on forest biodiversity, but just as strategies for the conservation, protection and sustainable use of forest resources in the country. For example, in the 1990s, government changed 6 gazetted forest reserves (Mugahinga, Bwindi Impenetrable, Rwenzori, Semuliki, Kibaale and Mt. Elgon) into National Parks, because of their exceptional biodiversity values of global significance. Non-Governmental Organisations (NGOs) have also been involved in the implementation of conservation, protection and preservations exercises in forest ecosystems without necessarily knowing their action's linkages with the expanded programme of work on forest biodiversity of the CBD.

Apart from the government institutions and departments directly responsible for the implementation of CBD, majority of the other government departments and NGOs involved in ecosystem management were not aware of this Expanded Programme of Work for CBD. Even those government departments engaged in the implementation of the CBD have only addressed issues related to CBD-POW by default. For example, before CBD came into force, Government was involved in tree planting, converting zones in gazetted protected areas and implementing some aspects related to other international conventions such as CITES, UNCCD, Ramsar, Rio+10, etc. that also have cross-cutting issues addressed in the CBD. However, there is no explicit action plan for the implementation of the expanded programme of work on forest biological diversity of the CBD.

PROGRAMME ELEMENT ONE

4.1. Applying Ecosystem Approach to Management of all Forests in Uganda

According to UWA, an ecosystems approach is currently being implemented in selected gazetted natural forests, especially National Parks such as Mt. Elgon, Rwenzori, Bwindi Impenetrable Forest, Semuliki and Mugahinga National Parks. It is not being applied to all forests. This approach is being implemented in collaboration with the communities living in the vicinity of these National Parks (Annex III-a). However, its effectiveness is still low, because there is little understanding of the approach among the communities living in the vicinity of these natural forests. Although the ecosystem approach is being implemented in these regions, there were no explicit (unique) management practices put in place for the management of

specific forests. The approaches were based on general best practices and agreed upon approaches with the community for forest management

According to NFA, the ecosystem approach is not currently being implemented in Forests under its management. However, a participatory process spearheaded by NFA is currently being implemented to develop plans for applying an ecosystems approach (Annex III-b).

It is obvious that the ecosystem approach is currently being implemented in selected gazetted forest ecosystems in the country. Therefore, there is need for strategies to transfer the approach to other non-gazetted forest ecosystems in the country. There is also need for further sensitisation among the forest resource users and managers concerning the benefits and roles of an ecosystem approach in the sustainable use and management of forest biodiversity in the country.

4.2. Reducing the Threats and Mitigate the Impacts of Adverse Processes

Processes that threaten the health of a natural forest include introduction of invasive alien species, acidification and eutrophication, climate change, fires, fragmentation and conversion of forest land into other uses and other natural disturbances.

4.2.1. Invasive Alien Species

Currently, there is a programme of monitoring invasive alien species introduction in the country managed by the National Agriculture Research Organisation (NARO) of the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and supported by UNEP⁴ and others. This programme was initiated in 2006. Its impact is still limited, but is making progress and it is expected to be more effective with time. The other government actors e.g. UWA has mechanisms of addressing issues of invasive species, although they too are not elaborate.

NFA follows the general precautionary principle of importing tested species or their provenances. Despite this principle, the forest sector failed to check the introduction of species that turnout to be invasive such as *Sienna spectabilis*, Paper Mulberry and Black Wattle). Now instead, NFA is discouraging the continued use and propagation of these invasive species elsewhere and working in collaboration with NARO to develop strategies to mitigate the negative impacts of these invasive species.

Some NGOs such as Nature Uganda also have an element of monitoring and preventing the entry of invasive alien species, but are limited in scope. The NGOs tend to focus on terrestrial macro-fauna and flora species. They have little or not attention to micro-fauna and flora species, with the exception of IUCN. The roles of these NGOs are limited to advisory and do not have the mandates of actively prevent the entry of invasive alien species into the country.

4.2.2. Pollution

Acidification and eutrophication on forest biodiversity in Uganda is not pronounced. This is probably because there is insufficient data on these processes in Uganda. Cases of domestic and industrial waste pollution in soils and water bodies have been reported in the country, but their resultant impact on forest and other ecosystem biodiversity has not been documented. According to NFA, central forest reserves are not prone to internally generated pollution and also that there are no signs of externally generated pollution. This is because of the manner of management of such reserves. Nevertheless, there is need for investigations to assess whether or not such pollution exists and its actual impacts on forest biological diversity.

4 United Nations Environment Programme (UNEP)

4.2.3. Climate Change

The impacts of climate change are real and Uganda is already a victim. However, the extent to which climate change has impacted on forest biodiversity is not well known. This is further complicated by the lack of a culture to keep updated information (inventories) on climate change and the presence of scanty data of the impacts of climate change on biological diversity in the country.

According to NFA, no specific studies have been done on climate change. Also, NFA has not developed a comprehensive strategy to adapt to climate change. Similarly, there was no evidence that UWA has conducted such studies or put in place climate change adaptation strategies. Nevertheless, there is need for studies to assess the impact of climate change on forest biodiversity.

4.2.4. Forest Fires

Fires are a major problem in the country, especially in forests that have been encroached on by people for farming and in animal grazing ecosystems. While the government is aware of the consequences of rampant and uncontrolled fires, the strategies in place to suppress fires, especially in ecosystems far away from the administrative centres are ineffective. Oftentimes, by the time government intervenes the damage is already done. Although the country has not experienced widespread and rampant forest fires, fires are an issue that needs further strengthening to be more effective. According to NFA, there are guidelines for preventing fires in forests prone to fires and NFA trained staff to detect and prevent sources of fires in fire prone forests. The questions, however, are how these fire prone forests are identified, how the guidelines for preventing (stopping) fires are applied and how the fires are actually prevented or stopped.

According to NFA, forest fires ignited by natural causes are inevitable and unavoidable, but whenever they occur, restoration exercises involving tree planting is carried out. It is clear that in such an event, not all forest biodiversity is restored. Trees are planted with the hope that the other affected biodiversity will be restored naturally.

4.2.5. Forest Encroachment and Clearing

Currently, there is unabated encroachment and clearing of natural forests in the country for agriculture, timber, human settlements, commercial and industrial developments, which obviously is negatively impacting on the country's forest biodiversity. In the last 15 years, the country lost forest cover at a rate of 86,467 hectares per year (FAO, 2005). This has occurred despite the presence of laws and regulations that prohibit such encroachment. Some of the cases of encroachment have been engineered (spearheaded) by the very government officials and politicians supposed to protect and conserve the natural forests in the guise of economic development.

While there are policies and guidelines for allocating harvesting quotas for non-timber forest products, there is no mechanism of calculating (determining) the impact of the quotas on the sustainable use and management of forest biodiversity. It is also government's policy that Environment Impact Assessments (EIAs) are carried out on the land before change of land-use, but often times, the assessments are inadequate, not comprehensive and are subjective to the interests of the developer and thus do not give the true scenarios of the impacts. It should therefore be an operational policy and practice that comprehensive EIAs (including cost-benefits) are done to assess the impacts of the quotas on forest biodiversity and whenever there is going to be change in land use.



Severely degraded natural forest in Kyenjojo district

There is need for political will and commitment to ensure that the country's laws and regulations are abided with. Also, there is need to strengthen forest surveillance and enforcement of laws and regulations in the country. Economic advancement of the country should not be pursued at the detriment of the biodiversity and overall environment. More efficient sustainable management strategies and practices need to be adopted and supported to ensure continuity and sustainability of biological diversity.

4.2.6. Documentation, Surveillance and Evaluation of Forest Biodiversity

While there is some documentation, surveillance, restocking, reforestation and protection of forest biodiversity in the country by UWA and NFA, their efforts are hampered by limited funds and human resource. There is need to put in place a continually updated database on the status of forest biodiversity to form basis for the conservation and management of forest biodiversity. While assessment of endemic and endangered species has been carried out by government, it is not consistent and comprehensive. It is characterised by information (data) gaps. These roles have essentially been left to IUCN, WWF, WCS, IGCP and other NGOs engaged in issues of nature. There is need to improve and strengthen the documentation and evaluation process of biodiversity in the country.

The National Forestry Policy and Tree Planting Act, 2003 provides for the establishment of privately owned and managed forest reserves in the country. It also recognises the rights and interests of private owners, the roles of indigenous knowledge and local communities in sustainable use and management of forests. Despite this, there are no explicit mechanisms or strategies and plans to effect the provisions of the Act.

4.2.7. Natural disturbances and Disasters

The country does not have a comprehensive and effective natural disaster action plan. Also, the impact of such natural disturbances on biological diversity is not well known. Although the country has not been struck by major destructive natural disturbances such as landslides and earthquakes in forest ecosystems, the occurrence of these disasters can be ruled-out. The recent floods experienced in the northern part of the country obviously caused negative impact on biodiversity, but the magnitude of the impact is yet to be quantified. There is need to assess the biodiversity situation in the flooded areas, since these areas feed into major forest

ecosystems in the country. There is also need for comprehensive strategies to brace the country against such events.

NFA is currently implementing a Nature Conservation Master Plan that provides for the establishment of Protected Area Networks, which include Collaborative Forest Management (CFM). Similarly, UWA also established Protected Areas Networks in the National Park forest under their jurisdiction. However, the networks are not adequate and do not cover all the forest's biological diversity and landscapes. The operation and performance of the networks is hampered by inadequate finances, surveillance equipment, skills, knowledge and confidence to implement their mandates. Also, assessment of the efficacy of the protected area networks has not been common practice within NFA and UWA.

Apart from some officials directly involved in the implementation of CBD, the concept of Article 8J of the CBD is not known by the majority of policy makers. The relevance of indigenous knowledge in the sustainable management of forest ecosystems is not an inherent concept in the minds of politicians, policy makers and the academics in general. As a consequence, all policies and legal provisions in the forestry sector do not explicitly include the use of traditional knowledge in the sustainable use and management of forest biodiversity. Yet, traditional knowledge and practice has been applied in the sustainable use and management of natural resources by natives for many centuries. There is need for Ugandans to appreciate the role of indigenous knowledge, practices and lifestyles in the conservation and sustainable use of biological diversity. There is also need for documentation and harmonisation of the indigenous knowledge to capture elements beneficial to sustainable use and management of biodiversity.

4.3. Promoting Sustainable Use of Forest Biological Diversity

Government through NFA and UWA put in place criteria and indicators for the sustainable management of forests that permits setting-up eco-tourism infrastructure in the forests and controlled harvesting of timber, firewood, medicinal herbs and other forest products. The criteria and indicators also permits carrying out stock surveys (inventories) that ensure a "Chain of Custody" for timber and other tree-based products. Government also put in place mechanisms for conflict resolution concerning the use and management of forests resources in the country.

Although there are criteria and processes of documenting biodiversity in general based on key functional species populations for terrestrial and aquatic macro fauna and flora in some sectors of government e.g. UWA, MAAIF and NFA, the available information (database) is scanty, characterised by gaps and does not cover all biodiversity species. For example, data based on genetic (DNA) variability *in-situ* is generally lacking. *Ex-situ* data on species diversity is available in the herbarium, museum and the zoos, but this also covers a few species and does not exhibit the DNA variability in forest ecosystems. While the processes acknowledge the need for access to appropriate technology and information for the preservation of biodiversity and safe handling and transfer of genetically modified organisms as provided for by Articles 8J, 10C, 15, 16 and 19 of the CBD, the available mechanisms for addressing the CBD provisions are weak and need further strengthening and improvement. The concept of a Clearing House Mechanism is not well known.

4.4. Access and Benefit Sharing of Forest Genetic Resources

4.4.1 Access and Benefit Sharing

It is government's policy as provided for in the National Environment Management Authority (NEMA) (Access to Genetic Resources and Benefits Sharing) Regulations (2005) terms and conditions that ensure that there is equitable sharing of genetic resources in the country. Although there are terms and conditions for the access and equitable sharing of genetic resources in the country, the manner in which these terms and conditions are met is limited by lack of financial and human resources to oversee their effectiveness. Also, access and

equitable sharing of genetic resources is limited by the disparity in the understanding of the meaning of access and equitable sharing of genetic resources among the different stakeholders. Different people understand access and equitable sharing of genetic resources differently. Some people think it is an outright lease to unchecked (uncontrolled) access to forest genetic resources, which is not the case.

NFA put in place avenues through which forest resources could be readily accessed and utilised in a sustainable manner that include Collaborative Forest Management (CFM), and contracts (permits) with local contractors. But the efficacy of these avenues in sustainable management of forest biodiversity is still questionable and requires continuous assessment and evaluation.

Currently, there is a Revenue Sharing Scheme that involves remittance of 15-25% of the gate collections from Protected Areas (PAs) such as National Parks with the local communities in the vicinity of the Parks for community development. The effectiveness of this scheme in community development and poverty eradication is still limited, because revenues from gate collections are often very small and therefore their impact in community development and poverty eradication is also minuscule.

Apart from the revenue sharing schemes with the local communities, there is no specific mechanism for the calculation and equitably sharing of the monetary and non-monetary costs of using forest biological diversity at all stakeholder levels. NFA developed parameters and variables that are used in preparing annual forest accounts, but these have not been universally accepted. They are still at inception phase. Other than the contracts, permits, licenses, performance bonds, MoUs and CFM, there is no specific approach of ensuring equitable sharing of costs and benefits at all stakeholder levels in the country. The concept of market-based conservation of forest and forest resources is still new, although it is being implemented by default through controlled harvesting and conservation contracts, permits, licenses, performance bonds and MoUs.

4.4.2. Outreach Programmes

Outreach programmes to educate the local communities on the values of conservation of genetic resources and the causes of biodiversity loss have been conducted in the country. These outreach programmes have been concentrated in communities close to protected areas, which has limited their effectiveness in the country. There is need to spread these outreach programmes to cover communities and forests biodiversity outside protected areas to include privately owned and non-gazetted forest ecosystems.

4.5. Institutional and Economic Enabling Environment

Uganda has an institutional framework and enabling environment for the implementation of the CBD-POW. For example, government put in place the National Environment Management Authority (NEMA) to oversee the use and management of natural resources in the country. NEMA is also the National Focal Point for the implementation of the CBD-POW on Forest Biodiversity in collaboration with other relevant institutions such as FSSD, NFA, MAAIF, MWE, MFPED, among others. However, the implementation of CBD-POW in the country is limited by the lack of financial and human resources and the low levels of awareness concerning CBD-POW among government officials, civil society organisations and the general public. There is need for improvement in the budgetary allocations and human capacity in the various sectors involved in the implementation of the CBD in the country and an increased awareness in the country concerning CBD-POW

Due to limited resources and awareness, the country has not been able to conduct participatory appraisals (analyses) at local, national, regional and global levels of the underlying causes of forest biodiversity loss, especially making a distinction between broad socio-economic causes such as demographic growth and the more specific causes such as

institutional weaknesses, market or policy failures and lack of coherence and direct interaction between the various policies, action plans and actors.

Donor organisations and other development partners interested in CBD should commit themselves to further enhancement of the various aspects of CBD in the participating parties, if the provisions of CBD are to be effectively realised. The commitment should include watershed management, land-use planning, energy, transport, infrastructure development, education, agriculture, mineral exploration, tourism, institutional weaknesses, and market and policy failures.

The CBD Secretariat should seek the collaboration and synergies of other relevant international and local organisations such as United Nations Forum on Forests, International Tropical Timber Organisation, United Nations Framework Convention on Climate Change and local civil society organisations, as appropriate.

While it is government's objective to put in place good governance practices in the use and management of forest biological diversity, there has been little or no continuous review, revision and implementation of forest and forest related laws, tenure and planning systems as basis for sound conservation and sustainable management of forest biodiversity. Similarly, while there are provisions for resolving land tenure and resource right conflicts and responsibilities, these provisions are often abused by the very persons supposed to enforce them. The existing tracking or "Chain of Custody" systems for forest products coordinated by NFA to ensure that the products are legally harvested are weak and need further support and strengthening. For example, the review of performance bonds, licences or permits in forest concessions (especially for gazetted forests) on the conservation and use of forest biodiversity resources is very weak and is leading to an overall loss of forest biodiversity in the country.

4.6. Socio-economic Failures and Distortions that lead to decisions that result in loss of Forest Biological Diversity.

The social, economic and environmental impact assessments done prior to the conversion of forest land into other land uses are often inadequate and do not accurately present the real threats of converting forest land to other land uses. The assessments are often biased in favour of the planned new developments. For example, the assessment of monetary and non-monetary costs and benefits of forest biodiversity is inadequate. It often does not reflect all stakeholder interests, entitlements and responsibilities and impacts of climate or environment change. The valuation of forest biodiversity and other forest goods and services does not involve the participation of stakeholders, especially local communities, in the analysis and mechanisms for the transfer of costs and benefits or development of economic incentives and alternate income generation initiatives that would promote sustainable use and conservation of forest biodiversity.



Natural Forest Degradation in Kasana-Kasambya Mubende District

Also, there are often no studies (researches) to assess current and future market trends for forest products, predicting future production and consumption trends and the capacities and limits of forest ecosystem functions and production.

While there are deliberate goals and objectives for promoting national laws and policies alongside international trade regulations that are compatible with conservation and sustainable use of forest biodiversity, there are no mechanisms of raising awareness (understanding) among the local communities, owners of private forests, logging contractors and forest workers about the techniques of monetary and non-monetary cost-benefit accounting for forest biodiversity evaluation. Such evaluations are considered too technical and a preserve of consultants usually involved in the evaluations of forest biodiversity. The evaluations also do not address all the provisions of Article 8J of the CBD.

PROGRAMME ELEMENT THREE

4.7. Classification, Mapping and Monitoring of Forest Biological Diversity

Classification of forested land in Uganda is based on the Langdate Brown *et.al* (1964) vegetation and land use classification that was based on work done in the 1950s and may not be in tandem with internationally updated and accepted classifications. It is also based on land cover and use classification developed by the biomass unit of the former Forestry Department and the occasional use of FAO vegetation or land use classification. It is obvious that there is no single method of classification of forests in Uganda.

Forests in Uganda are classified as Tropical Rain Forests (5% of Uganda's land surface), woodlands (19%), savannah woodlands, Montane Forests, bushes & shrubs and other plantation forests (7%). Forests are also classified as open (broad leaved, mixed, coniferous, bamboo & palm), closed (broad leaved, mixed & coniferous) and other wooded land (shrubs & forest fallows) (FAO, 2005). These classifications do not explicitly identify all the biological diversity present in these forests based on species genetic (DNA) and population variability.

The use of remote sensing technologies for identifying biological diversity and classifying forest ecosystems is still a new practice that has not adequately captured all biological diversity in the country. Similarly, there has not been comprehensive classification, mapping and standardisation of definitions of forest biological diversity in the country based on inventories, United Nations Forum on Forests definitions and other collaborative partnerships on Forests that would be used in regional and global reporting concerning forest types, scale and biodiversity, including socio-economic and cultural aspects. For example in the mid 1990s, biological diversity surveys were conducted based on a few taxa (higher plants, birds, small animals, moths and butterflies) with the purpose of selecting representative conservation area networks in the country.

While there are forest restoration initiatives in the country such as reforestation, they do not always target all species in the forest ecosystem. Tree planting is done with the hope that there would be trickle down positive effects on other forest species not originally targeted.

The government is currently developing strategies and action plans for improving infrastructure and professional capacities to monitor forest biological diversity, but the process is hampered by limited funds. Currently, there is no database sufficient to provide all the necessary information regarding forest biological diversity. Information on forests and responsibilities of gathering it are scattered in various institutions, departments and ministries of government. This makes it difficult to have a centralised database from which forest and forest biological diversity related data can be obtained or harmonised. Also, the concept of a "Clearing House Mechanisms" is still alien and therefore the country is yet to benefit from this mechanism.

Annexed are responses (III-a & III-b) obtained from some of the actors in the forest sector, including comments for clarification from NAPE exchanged with the respondents. The process of collecting the information is still on-going.

5.0. PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The Convention of Biological Diversity and some of its elements of the Expanded Programme of Work (POW) on Forest Biological Diversity are being implemented in Uganda, though at a limited scale. For example, the application of the ecosystems approach is only being implemented in gazetted National Parks. It is otherwise none existent in privately owned forest. There are attempts to reduce and mitigate against the threats of invasive alien species, fires, climate change, and encroachment on forest ecosystems. Issues regarding pollution of soils and water bodies, acidification and eutrophication are not effectively being addressed in the country

Government put in place policies, legal and institutional frameworks that are conducive for the implementation of the CBD-POW in Uganda. However, some of the policies, legal and institutional frameworks need to be supported and strengthened to make them more effective.

Previous Conference of Party Meetings set targets (goals) that were to be met by 2015 during the implementation of the expanded programmes of work on Forest Biological Diversity of the CBD. But, whether or not the targets set will be achieved remains to be seen.

Availability of financial and human resource capacity are limitation to the implementation of the CBD-POW in Uganda.

There are limited skill and technical knowledge on how to conduct monetary and non-monetary components of forest ecosystems, making it difficult to accurately evaluate the cost-benefits and impacts on biodiversity of changing forest land to other land uses. Similarly, there is limited capacity to monitor forest biodiversity in terms of species population and genetic (DNA) variability in the country.

The role of indigenous knowledge in the sustainable use and management of forest biological diversity is not well appreciated both at the individual, and policy levels in the country. Also, many Articles in the CBD are currently not being adequately addressed.

The concept of access, cost-benefit sharing is not well understood and applied in the country. Similarly, the concept of a Clearing House Mechanism as describe by the CBD is not well known even among the government officials mandated to implement the CBD-POW.

5.2. Recommendations

There is need for awareness creating among local communities, forest resource users and managers and the Ugandan public in general concerning CBD, so that people may appreciate its role, especially as regards Articles 8J, 10C, 15, 16, 19, among others of the CBD. In addition, awareness raising is required in the country as regards the various Expanded Programmes of Work of the CBD, especially that on forest Biological Diversity, Trade in Endangered Species and use of biologically modified organisms in forest ecosystems. Also, Ugandans need to be educated on the concept of the Clearing House Mechanism and how it works.

There is need to support and strengthen all initiatives aimed at implementing the expanded programmes of work on CBD in Uganda through provisions of additional funds and human resource capacities to enhance effectiveness in the implementation of CBD-POW. This will go a

long way in enabling states (parties) to achieve the CBD targets by the 2015 as agreed in the 6th Conference of Party meeting.

There is need for regular in-depth and comprehensive investigations to assess actual impacts of threatening processes such as pollution, invasive alien species, fires, proposed economic developments, climate change, encroachment and forest clearing and natural disturbances on forest biodiversity and ecosystems to form a basis for appropriate decision-making.

Ecosystems approach currently applied in forests in gazetted National Parks in the country should be spread to privately owned and non-gazetted and degraded forests in the country, so as to enhance protection, preservation and sustainable use and management of forests and other forest biodiversity resources countrywide.

The roles of indigenous knowledge, practices and lifestyles in the sustainable management of forest biological diversity needs to be properly elucidated to the wider population, so that people may appreciate and adopt it for the management of forest ecosystems in the country.

There are good forest laws and regulations in the country. Therefore, the enforcement of these laws and regulation should be a priority in the country. More support and strengthening of the law and regulation enforcement sectors in the country is needed.

Baseline surveys are necessary to establish the biodiversity situation in Uganda based on species population and genetic (DNA) variability that cover both terrestrial and aquatic macro and micro fauna and flora. Also, studies to identify species, physico- and bio-chemical indicators of changes in the environment need to be conducted in the country to form basis for monitoring environmental changes and the associated impacts. Such studies or surveys will help in filling the data gaps existing concerning biological diversity in all ecosystems in the country. Nationally and internationally standardised and harmonised biological diversity evaluation techniques and approaches need to be developed to form basis for assessing the monetary and non-monetary aspects of any ecosystem in the country. Such evaluation approaches should also include all stakeholders at all levels, especially the local communities. This will also help eliminate the problems associated with socio-economic failures and distortions that often lead to loss of biodiversity in many ecosystems in the country.

There is need to develop professional skills and acquire relevant technologies for the evaluation and monitoring of biological diversity in the country. These areas are still weak. Uganda also needs to develop a comprehensive and effective disaster preparedness plan that cuts across many social, economic and environment aspects. For example, whenever there is loss in biological diversity due to any disturbances, there must be restoration strategies for the lost biodiversity in any given ecosystem.

The Local Protected Area Networks put in place should be supported and strengthened to build their capacities in monitoring, reporting and sustainable use and management of forest biodiversity. Such networks should also spread to privately owned forests and other non-gazetted forest ecosystems in the country.



Bwindi Impenetrable Forest in Uganda

ANNEX I:

TOOL FOR INDEPENDENT MONITORING OF THE IMPLEMENTATION OF THE EXPANDED PROGRAMME OF WORK ON FOREST BIOLOGICAL DIVERSITY OF THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD-POW)

(Smaller Version)

SECTION A: RESPONDENT DETAILS

- i. Name and Title of Contact Person
- ii. Name of Organisation
- iii. Type of Organisation (including Ownership)
- iv. Functions of the Organisations
- v. Main activities of the Organisation
- vi. Address
- vii. Phone
- viii. Email

SECTION B: PROGRAMME ELEMENT ONE

1. Is an ecosystem approach being applied to all forests in Uganda?
2. How does your organisation prevent the introduction of invasive alien species and their negative impacts on forest biological diversity?
3. What activities is your organisation implementing to reduce the impacts of climate change on forest biodiversity?
4. What initiatives are in place to prevent the impact of pollution on forest biological diversity?
5. What activities is your organisation implementing to prevent impacts of fires on forest biodiversity?
6. What strategies has your organisation put in place to prevent biodiversity loss due to natural disturbance where they no longer occur?
7. What initiatives are in place to prevent losses of forest biodiversity due to conversion to other land-uses and unsustainable harvesting of timber and non-timber forest resources?
8. What initiatives are in place to restore forest biological diversity?
9. What initiatives (activities) are in place to conserve endemic and threatened species?
10. What are you doing to ensure adequate and effective protected area networks?
11. How are you promoting sustainable use of forest biodiversity?
12. Do you have programmes to facilitate local communities to develop and implement sustainable use of forest biodiversity?
13. What strategies are in place to ensure effective information systems and strategies for the conservation of genetic diversity?
14. How have you promoted sharing of benefits from forest genetic resources and traditional knowledge?

SECTION C: PROGRAMME ELEMENT TWO

15. What activities have been done to improve the understanding of the causes of forest biodiversity losses in the country?
16. How have you integrated biological diversity conservation and sustainable use into your programmes?
17. What governance practices have been put in place to provide a basis for conservation and sustainable use of forest biodiversity?
18. What strategies are in place to ensure that the monetary and non-monetary costs and benefits of forest biological diversity are equitably shared at all stakeholder levels?
19. What activities are being done to increase public understanding and support of the value of forest biological diversity at all levels?

SECTION D: PROGRAMME ELEMENT THREE

20. How have you harmonised global and regional forest classification systems with your national forest classification system?
21. What ecosystem surveys have you undertaken in priority areas for the conservation and sustainable use of forest biodiversity?
22. What strategies are in place to advance knowledge on and methods of assessing the status and trends of forest biological diversity?
23. What key research and programmes do you have on the role of forest biodiversity and ecosystem functioning?
24. How have you built and improved your technical capacity to monitor forest biological diversity in your organisation?
25. Have you benefited from the opportunities offered through the Clearing House Mechanism?

ANNEX II:

PART ONE (Larger Version)

MONITORING TOOL ON THE IMPLEMENTATION OF THE EXPANDED PROGRAMME OF WORK ON FOREST BIOLOGICAL DIVERSITY OF THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD/ POW) IN UGANDA

NB. The information obtained using these tools will be voluntary, will not be use for any other purpose other than the intended monitoring and shall be private and will not be shared with any other third party.

SECTION A: RESPONDENT DETAILS

1. INSTITUTION/ ORGANISATION / DEPARTMENT
2. Name and Title of Contact Officer
3. Address
4. Telephone
5. E-mail

SECTION B: AWARENESS (KNOWLEDGE) ABOUT THE CBD-POW IN UGANDA

- 1) Do you know what the Convention on Biological Diversity (CBD) is and what it entails?
Yes ___ No ____ (*tick appropriately*). If the answer in 1 is yes:-
 - a) Briefly describe what you know about CBD.
 - b) Is CBD one of the Programmes in your institution / organization?
 - c) When was CBD introduced in your institution / organisation? Year (___)?
- 2) Do you know what the Expanded Programme of Work (POW) on the CBD is?
Yes ___ No ____ . If the answer in 2 is yes:-
 - a) Briefly describe what you know about the Expanded Programme of Work (POW) of the CBD.
 - b) What thematic area of the CBD-POW is your institution/organisation working on?
 - c) Who is responsible for the implementation of the CBD-POW work in your institution or organisation?
- 3) Are there policies, guidelines or frameworks in your institution/ organisation for the implementation of the CBD-POW? Yes____; No ____; being developed ____; Not sure____ Not our institution's/organisation's mandate (*tick appropriately*).

- a) If yes, briefly describe the policy, guidelines and or frameworks for the implementation of the CBD-POW in Uganda;
- b) If No, briefly explain why there are no policies, guidelines or frameworks for the implementation of the CBD-POW in Uganda;
- c) If being developed, briefly explain at what stage and when they are expected to be ready for implementation;

PART TWO:

PROGRAMME ELEMENT ONE

1.0. CONSERVATION, SUSTAINABLE USE AND BENEFIT SHARING

1.1. Goal 1: Applying the Ecosystem Approach to Management of all types of Forests in Uganda

Use and Benefit –Sharing In Protected, Managed and Unmanaged Forests in Uganda

1. Has your institution/organisation developed guidelines:-
 - a) For applying ecosystem management approach in forest ecosystems?
 - b) To help in the selection of suitable forest management practices for specific forest ecosystems?

NB: Briefly explain your answer and provide relevant supporting documentation where appropriate. If it is not the institution's mandate, mention whose mandate it is.

2. What are the hierarchical decision-support tools concerning the conservation, sustainable use and benefit sharing of forests resources? Briefly describe the tools, if any. And provide relevant documentation.
3. Has your institution developed and implemented mechanisms for the participation of all stakeholders in ecosystem level planning and management?
4. Does your institution have formal (informal) international linkages for piloting and demonstrating ecosystems approach for forest management and for exchange of related information through the Clearing-House Mechanism?
5. Has your institution conducted workshops, seminars or meetings to educate and familiarise decision-makers and managers in the forest sector on the foundations, principles and modalities of an ecosystems approach of forest management in Uganda?
6. Does your institution conduct or support research or projects on forest biodiversity in relation to agriculture forest management, mining, infrastructure and other development projects; or developed guidelines to mitigate adverse impacts on forest biodiversity by such developments?

1.2. Goal 2. To Reduce threats and Mitigate the Impacts of threatening processes on forests biological diversity

1.2.1. Preventing the introduction of invasive alien species that threaten ecosystems and mitigating their negative impacts on forest biological diversity in accordance with international law.

7. Are there strategies or measures (e.g. risk assessment, strengthening of qualitative regulations, etc) put in (being put in) place by your institution at the national level for the prevention and mitigation of the negative impacts of invasive alien species that would threaten ecosystems in Uganda?
8. Does your institution have public awareness and education strategies or programmes on the impacts of invasive alien species in Uganda?

1.2.2. Mitigating the impact of pollution such as acidification and eutrophication on forest biodiversity.

9. Has your institution conducted or supported education (awareness rising) strategies or programmes on the impacts of pollution e.g. acidification and eutrophication and other pollutants in the country?
10. Has your institution conducted or supported monitoring programmes (strategies) that help evaluate the impacts of air, soil and water pollution on forests ecosystems and addressed the impacts of changing environmental conditions on forest ecosystems?
11. Has your institution supported or promoted the integration of forest biodiversity whenever strategies and policies for reducing pollution are being developed?

1.2.3. Mitigating the negative impacts of climate change on forest biodiversity activities.

12. Has your institution conducted or supported monitoring and research on the impacts of climate change on forest biological diversity i.e. investigating the interface between forest components and the atmosphere?
13. Has your institution coordinated or supported climate change response strategies and action plans at global, regional or national levels?
14. Has your institution put in place maintenance and restoration strategies (measures) that will enable forest biodiversity resist; recover and adapt to climate change?

1.2.4. Preventing and mitigating the adverse effects of forest fires and fire suppression.

15. Are there policies, practices and measures adopted by / guiding your institution aimed at addressing the causes and reducing impacts on forest biodiversity resulting from unwanted fire?
16. Has your institution conducted or supported public awareness (education) programme on the risks of human induced (unwanted) fires on forest biodiversity?
17. Has your institution developed or supported the development of strategies (tools) to combat (overcome) fires, if there was to be a shift in fire regimes?
18. Are there strategies your institution has put in place to avoid the negative effects of inter-sectoral programmes and policies that could induce uncontrolled forest fires?
19. Are there mechanisms and strategies by which your institution can obtain or exchange information related to loss of biodiversity and intervene whenever such loss occur e.g. disaster preparedness?

1.2.5. Mitigating effects of the loss of natural disturbances necessary to maintain biodiversity in regions where they no-longer occur.

20. What management methods have been developed by your institution that restore or mimic nature disturbances such as fire, wind-throw and floods? Mention them and provide documentary evidence.

1.2.6. Preventing and mitigating losses due to fragmentation and conversion of land to other land uses.

21. Has your institution encouraged the creation of private reserves and private conservation methods, respecting the rights and interests of indigenous and local communities?
22. Has your institution established ecological corridors at local, national or regional basis?
23. Has your institution conducted or supported cost-benefit analyses of development projects that might lead to the conversion of forest into other land uses, including the impacts of forest biodiversity?

24. What policies, practices or measures are there those are aimed at addressing the causes and reducing impacts on forest biodiversity resulting from uncontrolled land-use? List them and provide supporting documentation where appropriate.

1.3.0. Goal 3: To protect, recover and restore forest biological diversity

1.3.1. Restoring forest biological diversity in degraded secondary forests and in forests established on former forest lands and other landscapes including in plantations

25. Has your institution put in place systems and practices for restoration of forests in accordance with the ecosystem approach?
26. Does your institution have databases or case studies on the status of degraded forests, restored and afforested levels in Uganda?

1.3.2. Promoting forest management practices that further the conservation of endemic and threatened species.

27. Has your institution determined the status and conservation needs of endemic or threatened species and practices on these species in Uganda?
28. Has your institution developed, implemented or supported conservation strategies for endemic and threatened species for global or regional application, and practical systems of adaptive management at national level?

1.3.3. Ensuring adequate and effective protected forest area networks.

29. Has your institution assessed the comprehensiveness, effectiveness and adequacy of protected area local and international networks or instruments in relation to forest types and identified the gaps and weaknesses of such networks or instruments?
30. Has your institution put in place, in accordance with article 8J5 of the CBD, mechanisms that respect, preserve, maintain knowledge and practices and encourage the participation and rights of indigenous and local communities and other relevant stakeholders in the use and maintenance of protected areas?
31. Has your institution conducted or supported the restoration of degraded protected forest areas as means of improving the effectiveness of protected forest area networks?
32. Has your institution assessed the efficacy of protected forest area networks in the conservation of forest biological diversity?
33. Could you please briefly describe how your institution has ensured that protected forest areas are managed and maintained with a view of enhancing their biodiversity components, services and values? Provide relevant documentation where applicable.

1.4.0. Goal: To Promote the Sustainable use of Forest Biological Diversity

1.4.1. Promoting sustainable use of forest resources to enhance the conservation of forest biodiversity

34. Could you please briefly describe how your institution has supported the activities of and involved indigenous and local communities in the use of traditional knowledge and practices in the management of forest biodiversity in Uganda? Provide relevant documentation where applicable.

⁵ . Article 8J in the CBD is intended, subject to national legislation, to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

35. Has your institution developed, supported the development and promoted programmes and initiatives aimed at addressing the sustainable use of timber and other forest products?
36. Could you please briefly explain how your institution has supported regional cooperation and work on sustainable use of timber and non-timber forest products and services, especially through technology transfer and capacity building within and between regions. Is it your institution's mandate?
37. Has your institution put in place mechanisms of improving forest management and planning that incorporate social, economic and cultural values to support and facilitate sustainable use and management of forest biodiversity in Uganda?
38. Has your institution conducted or supported cooperative or collaborative work on sustainable use of forest products and services with a view of conserving forest biodiversity with other institutional or community-based partners?
39. Has your institution developed or supported the development and implementation of voluntary third party credible forest certification schemes taking into account relevant forest biodiversity criteria that would be audited based on indigenous and local community rights and interests?
40. Has your institution established or supported the establishment of sites to demonstrate proper forest conservation practices and the delivery of goods and services through sustainable forest management, especially to address the different forest types, themes and regional needs?
41. Has your institution developed or supported the development of a responsible private sector that is committed to "best practice principles" for the sustainable use and management of forest biodiversity in Uganda i.e. one that complies to and helps in the enforcement of domestic and international laws on biodiversity?

1.4.2.. Preventing losses caused by unsustainable harvesting of timber and non-timber forest resources.

42. What strategies (measures) has your institution put in place to prevent loss of forest biodiversity caused by unsustainable harvesting practices of timber and non-timber resources in gazetted and non-gazetted forests? List them and provide documentary evidence where appropriate. Is it your institution's mandate?
43. Are you aware of any legislation in the country for the sustainable management and harvesting of non-timber forest resources?
44. Does (has) your institution regulate(d) the entry into the country of unsustainably harvested resources that are not covered under the convention for international trade in endangered species of wild fauna and flora?
45. If the answer in 45 above is yes, has your institution used this information and experience as basis for further interventional measures?

1.4.3. Enabling endogenous and local communities to develop and implement adaptive community management systems to conserve and sustainably use forest biodiversity

46. Has your institution strengthened or supported the strengthening of the capacity or provided incentives for indigenous and local communities for sustainable use of forest biodiversity and access to local and international markets?
47. Has your institution strengthened or supported the strengthening of the capacity or provided incentives for indigenous and local communities to resolve land rights and land-use disputes in order to promote sustainable utilisation of biodiversity?
48. In your opinion, how has cultural diversity enhanced (if any) preservation, conservation and maintenance of forest biodiversity?
49. Has your institution developed and conducted or supported the development and implementation of educational (awareness rising) programmes on forest biological diversity in Uganda?

1.4.4. Developing effective information systems and equitable benefit sharing strategies and promoting their implementation *in-situ* and *ex-situ* sustainable use and conservation of forest genetic diversity and supporting countries in the implementation and monitoring of these systems and strategies

50. Has your institution conducted or supported the assessment and harmonisation of forest biodiversity based on key functional ("keystone") species population models and genetic (DNA) variability levels in the country?
51. Has your institution put in place strategies (mechanisms) for protecting the genetic resources of the most threatened ecosystems or species?
52. Does your institution have *in-situ* and *ex-situ* mechanisms for identifying, understanding and addressing (rectifying) the patterns (changes) in genetic diversity due to alterations in forest management, landscape and climatic change?
53. Are there legislative and administrative policies and measures for improving access and benefit sharing of forest genetic resources, taking into account Articles 8J, 10C, 15, 16 and 196 of the Convention on Biological Diversity and in conformity with future decisions of the Conference of Parties (COP) as appropriate? Please explain.
54. Has your institution developed or supported strategies for monitoring new biotechnology developments and assessing whether such developments are compatible with the objectives of the CBD in relation to forest biodiversity?
55. Has your institution developed or supported the development of mechanism of protecting the youth from genetically modified organisms (GMOs) whenever appropriate?
56. Has your institution put in place a holistic framework for the conservation and management of forest genetic resources at national, sub-regional, regional and global levels?
57. Could you please briefly describe what activities (strategies) (if any) your institution has developed, supported or put in place aimed at ensuring *in-situ* and *ex-situ* conservation of genetic diversity of endangered, over-exploited and narrow endemic forest species and for forest species of economic potential or importance?

1.5.0. Goal: Access and Benefit-sharing of Forest Genetic Resources

1.5.1. Promoting the fair and equitable fairing of benefits resulting from the utilization of forest genetic resources and associated traditional knowledge.

58. Has your institution developed or supported the development of strategies (mechanisms) for facilitating fair and equitable sharing of forest genetic resources at the national, regional and global level through the Clearing House Mechanisms of the CBD?
59. Is your institution aware of the need to strengthen the capacity of indigenous and local communities to negotiate (demand for) fair and equitable sharing of forest genetic resources in Uganda?
60. If the answer in 60 above is yes, could you briefly explain how your institution has disseminated (if at all) this information to local communities and how it has

6 . Subject to national legislation, Article 8J in the CBD is intended to respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.

Article 10C is intended to protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

Article 15 is intended to improve access to and protect genetic resources

Article 16 is aimed at improving access to technology relevant for conservation of biodiversity

Article 19 provides for modalities and mechanisms for safe transfer and handling of genetically modified living organisms modified by biotechnology i.e. modalities for bio-safety of genetically modified living organisms.

strengthened local communities to negotiate the sharing of benefits from forest genetic resources?

PROGRAMME ELEMENT 2

2.0. INSTITUTIONAL AND ECONOMIC ENABLING ENVIRONMENT

2.1. Goal: Enhance the Institutional and Enabling Environment

2.1.1. Improving the understanding of the different causes of Forest Biological Diversity losses

61. Has your institution conducted, supported or participated in transparent and participatory appraisals (analyses) at local, national, regional and global levels of the underlying causes of forest biodiversity losses? NB: A distinction should be made between broad socio-economic causes such as demographic growth and the more specific causes such as institutional weaknesses and market or policy failures.
62. If answer in 62 is yes, what recommendations were drawn and what has so far been implemented (if any). Provide relevant documentation.
63. Does your institution have mechanisms of reporting through the Clearing House Mechanism of the CBD of the successes, failures and lessons in the implementation of the CBD-POW on forest biodiversity in Uganda?

2.1.2. Integrating biological diversity conservation and sustainable use into forest and other sector policies and programmes by parties, governments and organizations

64. Has your institution formulated or supported the formulation of policies and strategies for the integration of CDB in national forest, sustainable natural resources, poverty reduction and non-forest related programme policies and action plans? NB: including financing and human resources allocation.
65. If the answer in 65 is yes, has there been coherence and direct interaction between the various policies, action plans and actors in the adoption of the CBD in Uganda? Briefly explain answer and provide supporting documentation. What indicators are there to show that there has been coherence and interaction in the adoption of the CBD in the policies and action plans in Uganda?
66. Has your institution developed or supported the development of strategies to effectively enforce forest management and protected area regulations, including providing adequate resources and involvement of indigenous and local communities?
67. In your opinion, do you think that donors and other financial institutions should incorporate forest biological diversity and sustainable use principles and targets into forest and related programme's support, including watershed management, land-use planning, energy, transport, infrastructure development, education and agriculture, mineral exploration and tourism? Are there some you know who have done this?
68. Should the Executive Secretary of the CBD coordinate and seek synergies, including establishment of memoranda of understanding between the CBD, United Nations Forum on Forests and the members of the collaborative partnerships on forests such as the International Tropical Timber Organisation and United Nations Framework Convention on Climate Change, as appropriate?
69. Has your institution, in addressing the CBD, conducted or supported capacity building, research and training, public education and awareness, access to and transfer of information and technology, technical and scientific operation with focus on capacities required to address forest biodiversity related issues?

2.1.3. Developing good governance practices, reviewing, revising and implementing forest and forest related laws, tenure and planning systems to provide a sound basis for the conservation and sustainable use of forest biodiversity

70. Has your institution developed or supported the development of measures (strategies) to put in place and secure a permanent forest area sufficient to allow effective conservation and sustainable use of forest and biological diversity?
71. What strategies has your institution put in place to encourage the government incorporate the provisions of the CBD and decisions of the Conference of Parties (COPs) into local forest and forest related laws, policies and action plans? *Briefly describe.*
72. Has your institution conducted, supported or participated in resolving land tenure and resource right conflicts and responsibilities in conservation and sustainable use of forest biodiversity in consultation with relevant stakeholders, especially indigenous and local communities?
73. Has your institution developed or supported the development of measures to protect traditional knowledge and values in national forest laws and planning tools?
74. Has your institution conducted or supported studies (research) on the roles and impacts of performance bonds, licences or permits in forest concessions on the conservation and use of forest biodiversity resources?
75. Has your institution conducted, supported or participated in social, economic and environmental impact assessments of land prior to conversion of land into other land uses?

2.1.4. Promoting Forest Law Enforcement and Addressing Related Trade.

76. What strategies (measures) has your institution put in place to enhance better understanding of the effects and causes of unsustainable exploitation (harvesting) of other forest resources and associated trade on forest biodiversity? *Briefly describe the measures.*
77. Has your institution conducted, supported or participated in the determination (definition) of what is considered illegal in forest resources use and management and the evaluation and reform of legislation to include effective deterrents to the illegal activities with a view of conserving forest biodiversity?
78. Has your institution developed, supported or participated in the development of tracking or "Chain of Custody" systems for forest products to ensure that the products are legally harvested?

2.2.0. Goal: Address Socio-economic Failures and Distortions that lead to decisions that result in Loss of Forest Biological Diversity

2.2.1. Mitigating the economic failures and distortions that lead to decisions that result in loss of forest biological diversity

79. Has your institution developed, supported or participated in the development of mechanisms for ensuring that monetary and non-monetary costs and benefits of forest biodiversity management are equitably shared between stakeholders at all levels?
80. Has your institution developed, supported or participated in the development of methods for valuing forest biological diversity and other forest ecosystem goods and services with the participation of stakeholders, especially the local communities in the analysis and mechanisms for transfer of costs and benefits?
81. If answer in 80 above is yes, did this include the incorporation of these values into forest planning and management approaches at community and national accounting levels?

82. Has your institution developed, supported or participated in the development of economic incentives⁷ and alternative income generation initiatives that would promote sustainable use and conservation of forest biological diversity?
83. Does your institution have mechanisms for assessing current and future market trends for forest products and predicting future production and consumption trends and the capacities and limits of forest ecosystem functions and production?
84. Does your institution have a deliberate goal of promoting national laws and policies alongside international trade regulations that are compatible with conservation and sustainable use of forest biological diversity?
85. Does your institution have mechanisms (strategies) of raising awareness (understanding) among the local communities about the techniques of monetary and non-monetary cost-benefit accounting for forest biodiversity evaluation?

2.3.0. Goal: Increase Public Education, Participation and Awareness

2.3.1. Increasing Public support and understanding of the value of forest biological diversity and its goods and services at all levels

86. Does your institution have strategies (measures) to increase broad-based awareness of forest biological diversity situation in Uganda at national and international arena?
87. Does your institution have programmes for continuous consumer awareness concerning sustainable harvested forest products?
88. What strategies has your institution put in place (if any) to increase awareness among stakeholders (local and international) on the potential contribution of traditional forest-related knowledge in the conservation and sustainable utilisation of forest biodiversity? *Describe the strategies, if any.*
89. Does your institution have strategies to recognise, respect, protect and maintain traditional forest-related knowledge and values in forest-related laws and forest planning tools, in accordance with Article 8(j) and related provisions of the CBD?
90. Does your institution have strategies of educating the public, especially forest workers, owners of private forests, logging contractors and consulting firms on the impacts of forest related production and consumption patterns on the loss of forest biodiversity?

PROGRAMME ELEMENT THREE

3.0. KNOWLEDGE ASSEMENT AND MONITORING

3.1. Goal: To Characterize and Analyse from Forest Ecosystem to Global-scale and Develop General Classification of Forests at Different scales with a view improving Assessment of Status and Trends of Forest Biological Diversity

3.1.1. Reviewing and adopting the harmonized global to regional forest classification system, based on harmonized and accepted forest definitions and addressing key forest biological diversity elements

91. Has your institution reviewed, developed and adopted a minimum classification of forest types based on remote sensing technologies with broad indicators of biological diversity that can be included in all regional and international forest related programmes, activities and action plans?
92. Has your institution developed, supported or participated in the development of strategies (frequency) of conducting forest resource inventories in the country (at least every ten years) acceptable on a regional and international scale?
93. Has your institution developed, supported or participated in the development of standard forest definitions (in the biodiversity perspective) in cooperation with the

⁷ . Avoiding perverse incentives such as subsidies that only encourage unsustainable methods and lead to loss of forest biodiversity, but encourage "best practices"

United Nations Forum on Forests and the collaborative Partnerships on Forests that will be used in regional and global reporting concerning forest types, scale and biodiversity in Uganda?

3.1.2. Developing national forest classification systems and maps (Using agreed international standards and protocols to enable regional and global synthesis)

94. Has your institution developed, supported or participated in the review and adoption of a forest ecosystem classification system based on maps and standard international protocols that include key components of forest biological diversity that will be used in assessment reports on forest types, including socio-economic and cultural aspects?
95. Has your institution adopted the use of modern technology such as Geographical Information Systems (GIS) to develop baselines for assessing the levels of deforestation and impacts on biodiversity?

3.1.3. Develop, where appropriate, specific forest ecosystems surveys in priority areas for conservation and sustainable use of forest biodiversity

96. Has your institution identified and prioritised areas where to conduct classification and baseline studies (surveys) to determine the forest biological diversity in the country?

3.2.0 Goal: Improve Knowledge on and Methods for the Assessment of the Status and Trends of Forest Biological Diversity based on available information

3.2.1. Advance the development and implementation of international, regional and national criteria and indicators based on key regional, sub-regional and national measures within the framework of sustainable forest management

97. Has your institution developed, supported or participated in the development and implementation of international, regional and national criteria and indicators based on key measures within the framework of sustainable forest management and where appropriate, quantifiable indicators for forest biological diversity based on existing work and processes on the criteria and indicators, including indigenous forest-related knowledge on sustainable forest management?

3.3.0. Goal: Improve and Understand of the Role of Forest Biodiversity and Ecosystem Functioning

3.3.1. Conduct key research programmes on the role of forest biodiversity and ecosystem functioning.

98. Has your institution developed, supported or participated in the development of research aimed at improving the understanding the relationships between forest biological diversity and ecosystem functioning, taking into account forest ecosystem components, structure, functions and processes, so as to:-
 - a) Improve the predictive capacity?
 - b) Understand critical thresholds of forest biological diversity loss and change, with particular attention to endemic and threatened species and habitats e.g. forest canopies?
 - c) Assess the impacts of current forest management practices for forest biodiversity within forests and adjacent land?
 - d) Develop and apply forest ecosystem restoration techniques to address biodiversity loss at ecosystem levels?

3.4.0. Goal: Improve the Infrastructure for Data and Information Management for Accurate Assessment and Monitoring of Global Forest Biological Diversity.

- 3.4.1. **Enhance and improve the technical capacity at the national level to monitor forest biological diversity, benefiting from the opportunities offered through the Clearing House Mechanism, and therefore develop associated database as required on a global-scale**
99. Has your institution developed, supported or participated in the development of strategies and action plans and facilitated the transfer of technology for infrastructure and training in Uganda to monitor forest biological diversity and associated databases?

RESPONSES FROM KEY ACTORS IN THE FOREST SECTOR

ANNEX III-a. UGANDA WILDLIFE AUTHORITY (UWA)

NB: Letters in red are requests for clarification

SECTION A: RESPONDENT DETAILS	
Name:	Fred Wanyama
Title:	Monitoring and Research Officer
Name of Organisation:	Uganda Wildlife Authority
Type of Organisation:	Government Parastatal Organization
Functions of the Organization	
4	Ensure the sustainable management of wildlife management areas.
5	To develop and recommend policies on wildlife management to the government.
6	To identify and recommend areas for declaration as wildlife conservation areas and for the revocation of such declaration.
7	To develop, implement and monitor collaborative arrangements for the management of wildlife.
8	To develop, implement and monitor collaborative arrangements for the management of wildlife
9	To establish management plans for wildlife conservation areas and for wildlife populations outside wildlife conservation areas.
10	To promote the conservation of biological diversity ex-situ and to contribute to the establishment of standards and regulations for that purpose.
11	To control internal and external trade in specimens of wildlife
Main Activities of the Organization	
6.	Community Education and Advocacy
7.	Ecosystem Management to enhance and maintain the integrity of Protected Areas.
8.	Monitor ecological and other changes in and around Protected Areas.
9.	Formulation of Policies for better Management of Wildlife
10.	Carry out law enforcement to gain compliance with wildlife management laws and regulation.
11.	Carry out monitoring and scientific research for management of wildlife and wildlife protected areas.
12.	Carry out consultations and develop collaborations with other lead agencies to manage wildlife including trans-boundary programs.
13.	Carry out animal health surveillance and intervention.
14.	Liaise with the Local communities neighbouring communities for enhanced collaboration
P. O. Box 3530, Kampala, Uganda +256-414 - 346287, 355000 uwa@uwa.or.og	

SECTION B: PROGRAMME ELEMENT ONE	
1.	An ecosystem approach is being applied to Mt. Elgon National Park under the MERECP for forests in the jurisdiction of UWA. Communities are involved in resource mappings to delineate areas for resource use. During this time, they are also trained in a number of aspects related to management and conservation of the protected areas next to them. This is through a number of avenues e.g. revenue sharing (there is an inter-district link committee made up of members from the six districts bordering MENP. The committee members meet and agree on how to share the revenue generated). There is also boundary management where communities utilize the Eucalyptus trees on the boundary. At the same time they grow crops under the Taungya system along the boundary (yhis activity is managed by the Boundary committee constituted the locals

	<p>from the parishes bordering the parks).</p> <p>RMNP8 – WWF</p> <p>1. BINP9 and MGNP10 (Integrated Conservation and Development Project) [Development Through Conservation] CARE. A trans-boundary strategic plan for Integrated Conservation and Development of National Parks that covers the stretch between Semuliki National Park and the Mugahinga National Park was developed and completed recently. But, its implementation has not yet started. The strategic plan was Inaugurated in February 2008. An implementation team has aslo been setup.</p>
2	<p>1. Conduct forest species surveys in collaboration with other stakeholders.</p> <p>2. Continuously remove invasive and alien species thus preventing them from spreading. This is carried out by debarking the invasive/alien species then leave them to dry. Also communities neighboring the protected area are given priority to harvest some alen species for their use.</p> <p>3. No planting of alien species in the protected areas. Communities are sensitized about the invasive species. During reforestation of degraded areas, invasive are not planted.</p>
3	<p>ix. Reforestation of degraded forests through restoration (planting) with indigenous species. This has been done in Kibale (KNP) and Mt. Elgon National Parks (MENP). Indigenous species include;</p> <p>In MENP</p> <p><i>Albizia gumifera, Bridelia macrantha, Cordia Africana, Cordia millenii, Croton macrostarchys, Maesa lanceolata, Neobotania macrocalyx, Sapium ellipticum, Spathodea campanulata, Polyscias fulva, Olea capensis, Prunus Africana, Syzygium guinensee</i></p> <p>In KNP</p> <p><i>Chrysophyllum albidum, Diospyrus mespiliformis, Fantumia elastica, Lovoa brownie, Uvariopsis congensis, Croton megalocarpus, Markhamia platycalyx, Mimusops bagshawei, Prunus Africana, Warbugia ugandensis, Erythrina abyssinica, Ficus natalenisi</i></p> <p>x. Law enforcement to prevent degradation</p>
4	<p>15. Carry out effective waste management in forests. Designated areas where rubbish is dumped. At tourist camps, three pits are dug for dumping [1] biodegradable materials, [2] metallic/glass and [3] polythene.</p> <p>16. Conduct EIA for new projects.</p> <p>17. Monitor the implementation of mitigation measures for old projects.</p> <p>18. Continuous monitoring of related aspects such as water quality.</p>
5	<p>19. Collect information on areas that are frequently burnt, including the fire regime and fire effects and accordingly carried out: The information is used mostly for planning pre-suppression measures, to prevent future occurrences as well as monitoring trends. It helps give areas preferential attention. However, this information is not usually used in the preparation of disaster preparedness plans, which is an oversight.</p> <p>20. Education and awareness programs</p> <p>21. Engineering works (creation of fire lines)</p> <p>22. Fire suppression</p> <p>23. Law enforcement.</p>
6	???
7.	<p>26. Reforestation of degraded forests through restoration(planting) with indigenous species</p> <p>27. Law enforcement to prevent degradation (e.g. Carry out boundary patrols)</p> <p>28. Demarcation of boundaries of Protected Areas to prevent encroachment.</p> <p>29. Evictions of people currently settled in the protected areas</p> <p>30. Carry out community education and awareness campaigns.</p> <p>31. Monitor forest resource off take.</p>
8	i. Restriction to deforested areas to allow forest regeneration.

8 Rwenzori National Park

9 Bwindi Impenetrable Forest National Park

10 Mugahinga National Park

	ii. Carry out tree planting programs in previously forested areas.
9	No extraction of endemics and threatened species
10	<ul style="list-style-type: none"> i. Review of PA networks to protect fragile ecosystems – System plan in place. In fact, it is currently being implemented and copies are available at the UWA Library in volumes 1-6. ii. Marking Boundaries iii. Memorandum of Understandings (MoUs) for boundary maintenance with neighbouring communities
11	<ul style="list-style-type: none"> i. Through the Collaborative Resource Management with communities (accepting limited resource off take such as firewood, medicinal plants after signing agreements) ii. Development and implementation of eco-tourism activities.
12	<p>Yes:</p> <p>Collaborative Management Strategy/guidelines for resource access in PA's. There is no specific mechanism for certifying that forest products have been harvested according to law or guidelines, but there efforts to ensure that best practices are applied. i.e. the forest products are not certified as per any standard e.g. Forest Stewardship Council (FSC). BUT best harvesting practices are ensured. Each resource use group has a chairman who monitors proper off-take as well as recording resources harvested.</p>
13	<p>UWA has a monitoring and Research policy that guides the researches in its protected areas. An information system MIST11 is already established in all Protected Areas. This helps in the short-term and long-term monitoring. The short-term ranges from 3 months to 1 year, while the long-term covers 3 and more years. The protected areas have a monitoring and research plan, in which there are parameters being monitored. This is done to establish trends (to help check negative trends and take corrective actions) A genetic diversity information system provided by NARO is in plan of establishment. The key strategies for conservation of genetic diversity in UWA include:</p> <ul style="list-style-type: none"> i. Maintain and enhance the integrity of Protected Areas. ii. Strengthen community conservation activities in and around Protected Areas. iii. Strengthen collection and analysis of management oriented information and monitor ecological and other changes in and around Protected Areas.
14	UWA has strongly adhered to the terms and conditions for benefit sharing as provided in The National Environment (Access to Genetic Resources and Benefit Sharing) Regulations, 2005 to promote equitable sharing of benefits from forest genetic resources and traditional knowledge.

SECTION C: PROGRAMME ELEMENT TWO

15	UWA established mechanisms through which communities surrounding Protected Areas directly benefit from there conservation such as the Revenue Sharing Scheme. In this scheme 25% of the gate collections are channeled back to the community for development projects.
16	<ul style="list-style-type: none"> i. Conservation education is being carried out through outreach programmes. These include school and community visits to teach them about the values and importance of conservation. These have been carried out in Buputo, Bulago and Masira Sub counties (All bordering Mt. Elgon National Park) ii. In the protected areas, there are also education centers that host local communities and schools/Institutions. During such times, people are enlightened about the importance of conservation. In Mt. Elgon National Park, we have The Forest Exploration Centre. iii. Other extension programmes includes tree nursery establishments, beekeeping and improved farming methods, which are carried in partnership with other related natural resource managers. E.g MENP helped communities to establish woodlots in Bukwa district, as well as supplying good quality tree seeds and polythene tubes. <ul style="list-style-type: none"> i. Promote non-consumptive use activities such as eco-tourism. This has been carried out around Kibale National Park ii. Allow limited resource off take.
17	<ul style="list-style-type: none"> i. Gazetting of Forest National Parks and putting in place laws that govern them ii. Boundary demarcation to show clearly where protected areas pass.

	iii. Institute laws enforcement to deter illegal activities on the protected area
18	<ul style="list-style-type: none"> i. Revenue Sharing (15%) of gate collection is shared with communities' neighbouring the forest national parks. [Revenue Sharing Guidelines in place] ii. Collaborative Resource Management there is restricted resource off take to communities. iii. Guide and support communities to develop and implement eco-tourism projects basing on the Community Conservation Policy. e.g. BINP, KNP
19	<ul style="list-style-type: none"> i. Conducting school education conservation programs ii. Mass media campaigns (Radio and TV talk shows iii. Dissemination of information during public functions. iv. Involve district leaders in the demarcation of protected area boundaries v. Documentaries.

SECTION D: PROGRAMME ELEMENT THREE	
20	NIL This has not yet been harmonized. Currently using the conventional classification used by the forest department.
21	Carried out Mammal surveys in UWA forested parks (KNP, BINP)
22	????
23	No research at the moment, although under the MERECP developed eco-tourism monitoring tools by IUCN.
24	<ul style="list-style-type: none"> i. Conducting trainings to field staff ii. Conduct study tours to other areas actively involved in forest biodiversity conservation. iii. Solicit technical support from technical partners
25	NIL i.e. Do not know whether it's functioning in Uganda. But NEMA should have a clue. This is often captured in the State of the Environment Reports prepared by NEMA which UWA adopts

UWA does not have a comprehensive biodiversity inventory that includes micro and macro fauna and flora, but has been preparing inventories for large animals. The inventory of tree species has been left to NFA. Likewise, an inventory of aquatic life is the preserve of Ministry of Agriculture, Animal Industry and Fisheries.

ANNEX III-b. NATIONAL FOREST AUTHORITY (NFA)

A: RESPONDENT DETAILS

Name and Title of Contact Person:

- i. Xavier Nyindo Mugumya: National Forests Management Specialist

Name of Organisation:

- ii. National Forestry Authority

Type of Organisation (including Ownership)

- iii. Government Parastatal established under S.52(1) of the National Forestry and Tree Planting Act 2003.

Functions of the Organisation

- iv.
 - a. To develop and manage all central forest;
 - 4. To identify and recommend t the minister, areas for declaration as central forest resources, and the amendment of those declarations.
 - 5. To promote innovative approaches for local community participation in the management of central forest reserves.

6. To prepare and implement management plans for central forest reserves and to prepare reports on the state of central forest reserves and such other reports as the minister may require.
7. To establish procedures for the sustainable utilization of Uganda's forest resources by and for the benefit of the people of Uganda.
8. To cooperate and coordinate with the National Environment Management of Uganda's forest resources.
9. To control and monitor industrial and mining developments in central forest reserves,
10. To develop, or control the development of tourist facilities in central forest reserves;
11. To enter into agreement or other agreements with any person, for the provision of forestry services, subject to such charges as may be agreed upon;
12. To carry out, or commission research for the purposes of conservation, development and utilization of forest, and for the conservation of biological diversity and genetic resources;
13. To ensure the training of forestry officers and other public officers in the development and sustainable management of forests.

Main Activities of the Organisation

- v. a. Activities related to "Improvement of the management of central forest reserves" are;
 - i. Preparation of management plans for all the central forest reserves
 - ii. Re-opening and maintenance of forest boundaries.
2. Encroachment planting
3. Partnerships building including collaborative forest management
4. Understanding stock surveys to regulate yields and quality of forest products.
5. Preparation of standards and guidelines for sustainable management of forests.
6. Management of encroachment.
7. Forest produce monitoring
8. Plantations development
9. Improvement of forest infrastructure
10. Protection of forest assets
11. Efficient use of human resources.
- b. Activities related to "Expansion of partnership arrangements"
 - i. Collaborative forest management arrangements
 - ii. Partnerships with NGOs, and Civil Society
15. Provision of land for tree planting
- c. Activities related to delivery of forestry related goods and services include:-
 - i. Issuance of licenses for harvesting of forest produce;
 - ii. Provision of good quality tree seeds and seedlings
- 12 Biomass monitoring and reporting
- 13 Mapping of land cover and land use.
- 14 Promoting private forestry services
- 15 Inventory and survey services
- d. Activities related to Financial sustainability
 - i. Ensuring financial discipline
 - ii. Looking for innovative ways to increase revenue generation
 - iii Long-term investment portfolio development.

Address

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Kampala, Uganda.

Phone

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+256-41-230365/6

email:

info@nfa.org.ug

SECTION B: PROGRAMME ELEMENT ONE.

1.No. However, on completion of participatory management plans all central forest reserves will be applying the ecosystem approach.

2. There is no programme within NFA aimed at preventing of alien species introduction. NFA follows the general precautionary principle of importing tested species or their provenances. There are some species which we introduced (e.g. *Sienna spectabilis*, Paper mulberry and Black Wattle) that are proving to be invasive. Our approach is to discourage their continued use. NFA also is in collaboration with National Agriculture Research Organisation (NARO) on how best to manage their negative impacts.

3. First of all, NFA has not undertaken an assessment of the "potential forest impacts" of climate change. Equally NFA has not developed a comprehensive climate change adaptation strategy. However, NFA is aware that;

19. Elevated carbon dioxide will increase forest productivity (subject to water and nutrients availability);
20. Altered rainfall patterns may change tree species distributions ,may decrease forest productivity where rainfall decreases, and may lead to increased forest damage;
21. Changes (increase) in temperature may lead to changes in species distribution ,change in forest biodiversity;
22. Increased bush fires will certainly increase forest damage, decline in forest biodiversity and decrease in forest productivity
23. Changes in pests and pathogens will increase forest damage ,decline in forest biodiversity as well as forest productivity ; and
24. Increased drought will reduce forest productivity.

The activities being under taken by NFA (though indirectly adaptive to the impacts of climate to forests) are contributing to the mitigation of climate change. The activities are listed in the answer to section A (v) These activities do reduce existing threats to biological diversity.

4. Each of NFA's major undertakings is subject to an environmental impact assessment. It is under the undertaking of the EIA that "impacts of pollution" are taken care of. Suffice to say that the central forest reserves are not prone to the internally generated pollution and no signs of externally generated have been detected.

5. The National forestry Authority has guidelines for fire prevention. These are based on the Sawlog Product and Grants scheme (www.sawlog.ug; www.nfa.org.ug). NFA has undertaken to train the staff (who are located at forests prone to fires) on how to detect and prevent sources of fires. Forests that are prone to fires are identified based on the climate and rainfall patterns in the area. For example forests in drier areas are considered to be more prone to fires than those in wetter areas

6. The common natural disturbance causing agents are lightening fires and landslides .When the fire takes place in a plantation or productive (zoned) areas, planting is undertaken to restore the place. However when natural disturbance occur in a natural reserve (zoned) or in woodland, then natural regeneration is supported to restore the area. In areas prone to fire, fire prevention guidelines are used. The guidelines can be found at www.sawlog.ug; www.nfa.org.ug.

7. The NFA has an elaborate system for preventing loss from land use change or over harvesting. These include:-
 - a) There are laws, policies and guidelines used by staff at all levels to deal with encroachment and to allocate harvesting quotas for non timber. However, we have no system of calculating sustainable quotas for non timber forest products.
 - b) We have staff duly dedicated to the prevention of loss of forest land to other land-uses. These are called law enforcement personnel.
 - c) We have initiatives with communities which helps cooperation between the NFA and members of society to prevent activities that may lead to loss of biological diversity. Such initiatives include collaborative forest management. In order to execute these initiatives, meetings are held with concerned communities and they agree on how much can or cannot be taken out of the forest at any given time. NFA is in the process of domesticating international collaborative forest management guidelines to form basis for national collaborative forest management (www.nfa.org.ug).
- 8
 - a) some forests are replanted to restore forest biological diversity
 - b) Some forests are only protected for natural restoration purposes
 - c) Small parts of forests are planted with single species to supply timber or charcoal so as to help the rest of the forest to be left alone for purposes of restoring or reverting to natural state.
 - d) Some parts of the forest are designated as conservation areas and are thus allowed to be maintained as such.
- 9
 - a) We have prepared species Action plans for the endangered species.
 - b) We have selected, for conservation, areas with known species which are endemic and endangered;
 - c) We have undertaken inventories to identify species endemic or threatened within the habitats;
- 10 The NFA is implementing the "Nature Conservation Master Plan" which it inherited from the forest plan. Within this "master plan" is contained a "network" of protected areas. However this network is not adequate and cannot be said to be representative of all the species in the country or the variability of the landscapes.
11. NFA is committed to sustainable use of forest biodiversity through;
 - a) Development and implementation of criteria and indicators for sustainable forest management. The quota system is part of the sustainable management system whereby there are Off-take quotas for non-timber products that allows communities (individuals) to take-out a certain amount of non-timber products in a given year or in regard to timber that allows a certain amount of timber to be harvested in a given forest per year. The criteria and indicators for such a system are still being domesticated.
 - b). Calculation of annual allowable cuts for timber,
 - c). Implementation of an integrated stock survey and management system of management inventory system of management which ensures "chain of custody" for timber and other tree based products.
12. Our assistance to communities is related to the sustainable utilization of forest Biodiversity located in central forest reserves. Usually this happens under the auspices of collaborative forest management (CFM).
13. There two main data bases held by NFA that are relevant for information Generation and exchange of biodiversity information are:-
 - a) The biodiversity inventories data base s generated and created soon after the in inventories mid 1990`s
 - b) The biomass data base.
 - c) Additional relevant information in biodiversity conservation is generated during the daily work in conservation activities, but it has not yet been captured in a systematic way as it was to make easily accessible to other users.
 - d) In addition, biodiversity conservation relevant information is got for the collaborating institutions and organizations such as the Wildlife Authority, NEMA, Wetlands, Makerere

University, Nature-Uganda, International NGO's in Uganda (e.g. IUCN, WCS¹², WWF and IGCP¹³) and several others.

14. Benefit sharing is possible through several avenues in NFA:-
 - a) Collaboration forest management agreements have provisions for benefit Sharing (products and services)
 - b) Contracts at the forest management unit are fast offered to local contractors
 - c) NFA has mechanisms for promoting traditional knowledge. This is accomplished through working with communities whereby cultural or indigenous knowledge sites in the forests are preserved and used in keeping with the sustainable management of the forest. Agreements are made between the communities and NFA and various roles and responsibilities regarding indigenous property and knowledge are allocated between the parties. The indigenous sites are then recognized and demarcated.

SECTION C: PROGRAMME ELEMENT TWO

15. We have public outreach programmes through several mediums of communication including.
 - a) Print media through periodic publications
 - b) Audio-visual multimedia arrangements such as talk shows.
 - c) Workshops and seminars and consultative meetings.
 - d) Participation in public fora.

In all these cases, opportunities to explain the linkages between forests biodiversity losses and human development actions made manifest.

16. The integration was and is continuously done through the following ways;
 - a) In all our protected areas greater than 5000Ha, NFA has zoned areas suitable for management of biological diversity including their associated habitats;
 - b) In all areas which are zoned for "production" purposes, NFA looks for micro habitats which are sensitive and it protects them. Such areas include wooded patches between open areas; wetland areas near streams and areas with unique populations of threatened species.
 - c) All management plans and other documents prepared for implementation are reviewed to determine whether they comply to the minimum standards required for conservation of biological diversity.
 - d) In areas where administration is admissible, a precautionary approach is used to allow only sustainable units.
17. There are several laws, policies and regulations that are in place to regulate and guide conservation and sustainable use of forest biodiversity. To support these governance structures are instruments of law, such as permits, agreements, protocols that are defined. Examples include
 - a) Permits and licenses to deal in biological diversity products and services.
 - b) Agreements and consent protocols to bio-prospect.
 - c) Procedures for the processing of each of the documentation required are regularly clarified and made known to users of biodiversity products and services.
18. The determination of the true costs and benefits has not yet been done by NFA. The current strategy is to have Uganda Bureau of Statistics (UBOS) to accept the same parameters and variables that NFA uses in preparing the national accounts .But this is still at inception levels and has not yet been implemented.

¹² . Wildlife Conservation Society

¹³ . International Gorilla Conservation Programme

19. Several public presentations of works and studies commissioned to elucidate the value of biodiversity have been done and continue to be carried out.

SECTION D: PROGRAMME ELEMENT THREE.

20. This has not been done. The classifications we are using are based on three main sources;

- i. Vegetation and land use classification based on works done in late 1950 but published in 1964 by Langdate Brown and others.
- ii. Land cover and use classification developed by the biomass unit of the former forestry department;
- iii. Occasional use of FAO vegetation / land use classification.

21. Mid-1990's there were biological diversity surveys based on a few selected taxa (higher plants, birds, small mammals, moths and butterflies). This did include habitat surveys where these taxa were located. They were done for the purposes of selecting representative conservation area networks.

22. NFA depends on researchers, research institutions (e.g. Makerere and other universities), organizations (e.g. Nature Uganda), NGOs (e.g. WCS, WSF) and parastatals (e.g. NARO) to advance knowledge and methods to assess the status and trends of forest biodiversity

23. Response similar to (22 above)

24. Response as in (22)

25. The clearing house mechanism is yet to be formed.

ANNEX IV. LIST OF PERSONS AND ORGANISATIONS CONSULTED

NAME	ORGANIZATION	PHONE NO.	E-MAIL
Annet Nakyeeyune	Uganda Wildlife Society	0772-575779	anakyeyune@yahoo.com
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Xavier Nyindo Mugumya	National Forestry Authority	0712-408396	xavierm@nfa.org.ug
Oweyegha Afunaduula	Zoology Department Makerere University,	0782-555222	afunaduula2000@yahoo.com
I.Oluka Akiteng	Forestry Sector Support Department (FSSD)	0772-495070	oluka_Akileng@yahoo.com
Dorothy Kagwa Kagumya	Environmental Alert P.O. Box 11259-Kampala	0772-6806866	dkagwa@envalert.org
Bazira Henry	SCARFACE LTD/NAPE	0752-859475	bazirah@yahoo.co.uk
Byaruhanga Achilles	Nature Uganda	0414-540719	natureuganda.org

Kamese Geoffrey N	NAPE	0774-609190	kameses@nape.or.ug
Frank Muramuzi	NAPE	0772-492362	nape@nape.or.ug
Francis Ogwal	National Environment Management Authority (NEMA)	0772-517045; 0414342717 ; 0414342758	fogwal@nemaug.org
Justus Tindigarukayo-Kashagire	Ministry of Tourism, Trade and Industry (MTTI)	0414251294 ; 0772323475	jtindigarukayo@mtti.go.ug
Mpangire Stephen	Forestry Sector Support Department (FSSD)	0414340684 ; 0772593287	mpangirestephen@yahoo.com
Charles. K. Byaruhanga	Forestry Sector Support Department (FSSD)	0414340684 ; 0772469162	charles_k_byaruhanga@yahoo.com
Dr. Chris Bakuneta	Zoology Department, Makerere University	0772698867	-
Frank Kansiime	Makerere Institute of Environment and Natural Resources (MIENR)	0414530135 ;	-
Sam Mwandha	Uganda Wild Life Authority (UWA)	0712-890424	sam.mwandha@uwa.or.ug
Freddrich Wanyama	Uganda Wild Life Authority (UWA)	0772-644705	fred.wanyama@uwa.or.ug
Margaret Kobusinge	Ministry of Finance, Planning and Economic Development (MFPED)	0414-707195; 0752-598025	margaret.kobusingye@finance.go.ug
George Sserunjogi	Ministry of Finance, Planning and Economic Development (MFPED)	0414-707192; 0752-731739	georgesserunjogi@finance.go.ug
Paul Mafabi	Wetlands Inspection Division, Ministry of Water and Environment		pamfabi@yahoo.co.uk

ANNEX V TERMS OF REFERENCE

Research Process for producing independent monitoring reports on implementation of the Expanded Programme of Work on Forest Biological Diversity of the Convention on Biological Diversity (CBD/POW)

Introduction

The Global Forest Coalition (GFC) decided to conduct an independent monitoring process to assess how governments implement the Expanded Programme of Work on Forest Biological Diversity of the Convention on Biological Diversity (see Annex) in 20 different countries, selected from a total of 21 case studies produced, 3 per each region. When deciding to adopt this CBD/POW, the COP-6 of the CBD 'invited' Parties, Governments, NGOs, international and regional organizations, etc. to address:

- 16 The need to focus on key priorities for sustainable use of forest resources and the equitable sharing of benefits;
- 17 The need to facilitate adequate participation of indigenous and local communities and the need to respect their rights and interests;
- 18 The need for urgent conservation action for forests that are ecologically significant and/or most important for biological diversity on national and regional scales, in accordance with national priorities, where forest biodiversity loss or threats of loss are significant or of great concern, but also to work to enhance conservation in all types of forests, both within and outside protected areas;
- 19 The need to achieve synergies and avoid duplications between the work of the key international instruments and bodies, such as the Secretariat of the Convention on Biological Diversity, and the other members of the Collaborative Partnership on Forests;
- 20 The need to ensure capacity-building and the provision of adequate financial, human and technical resources to allow implementation of the work programme by all relevant stakeholders;
- 21 The need to ensure that relevant activities be effectively incorporated into national and subnational forest and biological diversity strategies and programmes;
- 22 The need for clarification of the links between the ecosystem approach and sustainable forest management.

The GFC pays special attention to understanding the influence of international and national underlying causes of forest loss and degradation in order to assign clear responsibilities in the processes driving forest loss and degradation.

The results of the process will be presented at the ninth session of the Conference of the Parties to the CBD (May 2008) with the aim to provide input to the long-term development of the CBD/POW and the commitments taken up by countries for national level implementation.

Each monitoring report will be published in the main language of the country undergoing a monitoring process. Summaries of all the reports will be compiled into a global report with a broader international perspective and translated into at least three international languages. As most of the authors of national monitoring reports may not be native English speakers, a professional editor will be hired to ensure grammatical and linguistic coherence. A side event and a press conference will be organized to present and discuss the monitoring reports. The country monitors will be asked to attend these meetings and the relevant intergovernmental fora themselves, so that they can respond to any questions that may need further clarification and provide additional information.

Research Process

"Country monitors" (local research partners) will be identified by GFC Focal Points. **This process should finalize by mid March.** Relevant questionnaires will be prepared, circulated and compiled for local analysis, review and critique. The questionnaires should be circulated by the end of March and should be submitted back to the country monitors by the **beginning** of April.

The research process, starting with gathering of data and analysis of base-line information will be based on a participatory process, involving individuals from communities or organizations with experience in research projects. **These activities should be finalized by the end of April.**

Participatory appraisals will be conducted in the field and workshops and seminars will be held to ensure clear understanding of all aspects of the project by all actors involved. **These activities should take place until the end of August.**

The monitoring reports will combine research results and the answers to the questionnaires, and will include conclusions, recommendations for action and a list of key findings and recommendations for inclusion in the project synthesis report. The monitoring reports will be delivered for review and editorial work to a "production group" (composed by the GFC Focal Points and the GFC coordination) in any of the project's working languages. **The deadline for the first review round by the production group will be end of September.** The "production group" will be responsible for reviewing, editing and producing a synthesis report through electronic media. The group will work in English.

After the first review round by the production group, an open review and comment process of both, the case studies and the synthesis report in their respective working languages, will take place. **The deadline for this review round will be end of October.** The production group, in consultation with the authors will incorporate comments and finalize editing the products. Linguistic editing will be conducted at this point by qualified editors, appointed by the GFC-CG. Translation of the synthesis report will take place after the final English version is completed. **The deadline for these activities by the production group will be end of November. The final product will be ready by the end of December.**

Terms of Reference for the preparation of independent monitoring reports on implementation of the Expanded Programme of Work on Forest Biological Diversity of the Convention on Biological Diversity (CBD/POW)

The Country monitors, together with the communal actors (when applicable) and as set out in the research process, will:

16. Together with the relevant GFC Focal Point, develop and distribute an adequate questionnaire among the relevant official and societal actors.
17. Provide a brief description of the environmental, geophysical and socioeconomic aspects of the country.
18. Provide a characterization of forests occurring in the country.
19. Describe the land tenure regime and forest management situation in the country.
20. Describe the status of forests and forest peoples before and after the entry into force of the CBD/POW.
21. Compare predominant forest management practices (including legal framework) before and after the inception of the CBD/POW.
22. In southern country case studies, describe and analyze how market-based conservation mechanisms interfere with the implementation of the CBD/POW.
23. In northern country case studies, describe and analyze those countries' role in deforestation and forest conservation abroad, as well as market-based conservation initiatives originated in those countries.

24. Assess the role of international institutions, such as the World Bank, UN Food and Agriculture Organization, UN Conference on Trade and Development, World Trade Organization, and other relevant regional ones in helping countries implementing the CBD/POW.
25. Assess the environmental changes occurring in the country since the entry into force of the CBD/POW.
26. On basis of the information and data gathered, conduct a comparative analysis of the situation of forest and forest peoples before and after the inception of the CBD/POW.
27. Write a report of between 4,000 and 5,000 words about the results of the independent monitoring process, complying with the revision requirements specified in the "research process".
28. Write an executive summary of no more than 800 words.

Duration of assignment

Draft reports should be sent before September 30 to Miguel Lovera, Coordinator of the GFC by e-mail lovera2@conexion.com.py

All draft reports must be approved by GFC Coordinator 6 months after signing of the contract.

Financial arrangements

The researcher will receive € 4000 to cover the workshop expenses, € 3000 for research expenses in general, in two installments (€ 2000 after signing of contract and € 1000 after approval of report). Additionally, up to € 2000 are available for advocacy work and distribution of results and outcomes, on basis of needs identified by local researchers.

Annex

EXPANDED PROGRAMME OF WORK ON FOREST BIOLOGICAL DIVERSITY

In undertaking this expanded programme of work, Parties, Governments, international and regional organizations and processes, civil society organizations and other relevant bodies and all relevant implementers are invited to take into account the following considerations:

12. The need to focus on key priorities for sustainable use of forest resources and the equitable sharing of benefits;
13. The need to facilitate adequate participation of indigenous and local communities and the need to respect their rights and interests;
14. The need for urgent conservation action for forests that are ecologically significant and/or most important for biological diversity on national and regional scales, in accordance with national priorities, where forest biodiversity loss or threats of loss are significant or of great concern, but also to work to enhance conservation in all types of forests, both within and outside protected areas;
15. The need to achieve synergies and avoid duplications between the work of the key international instruments and bodies, such as the Secretariat of the Convention on Biological Diversity, and the other members of the Collaborative Partnership on Forests;
16. The need to ensure capacity-building and the provision of adequate financial, human and technical resources to allow implementation of the work programme by all relevant stakeholders;
17. The need to ensure that relevant activities be effectively incorporated into national and subnational forest and biological diversity strategies and programmes;
18. The need for clarification of the links between the ecosystem approach and sustainable forest management.

PROGRAMME ELEMENT 1. CONSERVATION, SUSTAINABLE USE AND BENEFIT-SHARING

GOAL 1

To apply the ecosystem approach to the management of all types of forests

Objective 1

Develop practical methods, guidelines, indicators and strategies to apply the ecosystem approach adapted to regional differences to forests both inside and outside protected forest areas as well as both in managed and unmanaged forests.

Activities

14. Clarify the conceptual basis of the ecosystem approach in relation to sustainable forest management.
15. Develop guidance for applying the ecosystem approach in forest ecosystems.
16. Identify key structural and functional ecosystem elements to be used as indicators for decision-making and develop decision-support tools on a hierarchy of scales.
17. Develop and implement guidance to help the selection of suitable forest management practices for specific forest ecosystems.
18. Develop and implement appropriate mechanisms for the participation of all stakeholders in ecosystem-level planning and management.
19. Develop an informal international network of forest areas for piloting and demonstrating the ecosystem approach and exchange related information through the clearing-house mechanism.
20. Hold workshops to train and familiarize decision makers and managers with the foundations, principles and modalities of the ecosystem approach.
21. Promote research and pilot projects to develop understanding of the functional linkages between forest biological diversity and agriculture with the aim to developing practices that could improve the relations between forest management and other land use methods. Promote assessment of functional linkages between mining, infrastructure and other development projects and forest biodiversity, and develop best practice, guidelines for such development projects to mitigate adverse impacts on forest biodiversity.
22. Promote activities that minimize the negative impacts of forest fragmentation on forest biodiversity, including afforestation, forest restoration, secondary forest and plantation management, and agroforestry, watershed management and land use planning aimed at providing a combination of economic and environmental goods and services to stakeholders.

GOAL 2

To reduce the threats and mitigate the impacts of threatening processes on forest biological diversity

Objective 1

Prevent the introduction of invasive alien species that threaten ecosystems, and mitigate their negative impacts on forest biological diversity in accordance with international law.

Activities

- xi. Reinforce, develop and implement strategies at regional and national level to prevent and mitigate the impacts of invasive alien species that threaten ecosystems, including risk assessment, strengthening of quarantine regulation, and containment or eradication programmes taking into account the guiding principles on invasive alien species if adopted at the sixth meeting of the Conference of the Parties.
- xii. Improve the knowledge of the impacts of invasive alien species on forest ecosystems and adjacent ecosystems.

Objective 2

Mitigate the impact of pollution such as acidification and eutrophication on forest biodiversity

Activities

25. Increase the understanding of the impact of pollution, e.g., acidification and eutrophication, and other pollutants (such as mercury and cyanide) on forest biodiversity; at genetic, species, ecosystem and landscape levels.
26. Support monitoring programmes that help evaluate the impacts of air, soil and water pollution on forest ecosystems, and address the impacts of changing environmental conditions on forest ecosystems.
27. Encourage the integration of forest biodiversity consideration into strategies and policies to reduce pollution.

28. To promote the reduction of pollution levels that adversely affect forest biodiversity and encourage forest management techniques that reduce the impacts of changing environmental conditions on forest ecosystems.

Objective 3

Mitigate the negative impacts of climate change on forest biodiversity

Activities

Taking into account the work of the Ad Hoc Technical Expert Group on Climate Change and Biodiversity:

24. Promote monitoring and research on the impacts of climate change on forest biological diversity and investigate the interface between forest components and the atmosphere;
25. Develop coordinated response strategies and action plans at global, regional and national levels;
26. Promote the maintenance and restoration of biodiversity in forests in order to enhance their capacity to resist to, and recover from and adapt to climate change;
27. Promote forest biodiversity conservation and restoration in climate change mitigation and adaptation measures;
28. Assess how the conservation and sustainable use of forest biological diversity can contribute to the international work relating to climate change.

Objective 4

To prevent and mitigate the adverse effects of forest fires and fire suppression

Activities

32. Identify policies, practices and measures aimed at addressing the causes and reducing impacts on forest biological diversity resulting from human-induced uncontrolled/unwanted fires, often associated with land clearing and other land use activities.
33. Promote understanding of the role of human-induced fires on forest ecosystems and on species, and of the underlying causes.
34. Develop and promote the use of fire management tools for maintaining and enhancing forest biological diversity, especially when there has been a shift in fire regimes.
35. To promote practices of fire prevention and control to mitigate the impacts of unwanted fires on forest biological diversity.
36. Promote development of systems for risk assessment and early warning, monitoring and control, and enhance capacity for prevention and post-fire forest biodiversity restoration at the community, national and regional levels.
37. To advise on fire-risk prediction systems, surveillance, public education and other methods to minimise human-induced uncontrolled/unwanted fires.
38. Develop strategies to avoid the negative effects of sectoral programmes and policies which could induce uncontrolled forest fires.
39. Develop prevention plans against devastating fires and integrate them into national plans targeting the biological diversity of forests.
40. Develop mechanisms, including early warning systems, for exchange of information related to the causes of forest biodiversity loss, including fires, pests and diseases, and invasive species.

Objective 5

To mitigate effects of the loss of natural disturbances necessary to maintain biodiversity in regions where these no longer occur.

Activities

- iii. Develop and promote management methods that restore or mimic natural disturbances such as fire, wind-throw and floods.

Objective 6

To prevent and mitigate losses due to fragmentation and conversion to other land uses

Activities

- ii. Encourage the creation of private reserves and private conservation methods where appropriate, respecting the rights and interests of indigenous and local communities.
- iii. Establish ecological corridors on a national and regional basis.

- iv. Promote cost-benefit analysis of development projects that might lead to the conversion of forest into other land uses incorporating the impacts on forest biological diversity.
- v. Implement policies, practices and measures aimed at addressing the causes and reducing impacts on forest biological diversity resulting from human-induced uncontrolled clearing or other uncontrolled land-use activities

GOAL 3

To protect, recover and restore forest biological diversity

Objective 1

Restore forest biological diversity in degraded secondary forests and in forests established on former forestlands and other landscapes, including in plantations.

Activities

- ii. Promote the implementation of systems and practices for restoration in accordance with the ecosystem approach
- iii. Promote restoration of forest biological diversity with the aim to restore ecosystem services.
- iv. Create and improve where appropriate international, regional and national databases and case-studies on the status of degraded forests, deforested, restored and afforested lands.

Objective 2

Promote forest management practices that further the conservation of endemic and threatened species.

Activities

- iii. Determine status and conservation needs of endemic or threatened species and the impacts of current forest management practices on these species.
- iv. Develop and implement conservation strategies for endemic and threatened species for global or regional application, and practical systems of adaptive management at national level.

Objective 3

Ensure adequate and effective protected forest area networks.

Activities

- iv. Assess the comprehensiveness, representativeness and adequacy of protected areas relative to forest types and identify gaps and weaknesses.
- v. Establish (in accordance with Article 8(j)) with the full participation and with respect for the rights of indigenous and local communities, and other relevant stakeholders, comprehensive, adequate, biologically and geographically representative and effective networks of protected areas.
- vi. Establish, in a similar manner, restoration areas to complement the network of protected areas where needed.
- vii. Revise in a similar manner and ensure the comprehensiveness, adequacy, representativeness and efficacy of existing protected area networks.
- viii. Assess the efficacy of protected forest areas for the conservation of biological diversity.
- ix. Ensure that relevant protected areas are managed to maintain and enhance their forest biodiversity components, services and values;

GOAL 4

To promote the sustainable use of forest biological diversity

Objective 1

Promote sustainable use of forest resources to enhance the conservation of forest biological diversity

Activities

- ii. Support activities of indigenous and local communities involving the use of traditional forest-related knowledge in biodiversity management.
- iii. Develop, support and promote programmes and initiatives that address the sustainable use of timber and non-timber forest products.
- iv. Support regional cooperation and work on sustainable use of timber and non-timber forest products and services, including through technology transfer and capacity-building within and between regions.

- v. Improve forest management and planning practices that incorporate socio-economic and cultural values to support and facilitate sustainable use.
- vi. Promote cooperative work on the sustainable use of forest products and services and its relation to biodiversity conservation with the other members of the Collaborative Partnership on Forests.
- vii. Encourage implementation of voluntary third-party credible forest certification schemes that take into consideration relevant forest biodiversity criteria and that would be audited, taking into consideration indigenous and local community rights and interests.
- viii. Set up demonstration sites that would illustrate forest conservation and on-ground delivery of goods and services through sustainable forest management, which are also representative of various types of forest, themes and regional needs, through case-studies.
- ix. Facilitate and support a responsible private sector committed to sustainable harvesting practices and compliance with domestic laws through effective development and enforcement of laws on sustainable harvesting of timber and non-timber resources.

Objective 2

Prevent losses caused by unsustainable harvesting of timber and non-timber forest resources.

Activities

- iii. Establish a liaison group with an associated workshop to facilitate development of a joint work plan with relevant members of the Collaborative Partnership on Forests to bring harvesting of non-timber forest products (NTFP)s, with a particular focus on bush meat, to sustainable levels. This group should have a proportionate regional representation, giving special consideration to subregions where bush meat is a major issue and representation of relevant organizations such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The mandate of this group is to:
 - i. Consult in a participatory manner with key stakeholders to identify and prioritize major issues pertaining the unsustainable harvesting of non-timber forest products, particularly of bushmeat and related products;
 - ii. Provide advice on the development of policies, enabling legislation and strategies that promote sustainable use of, and trade in, non-timber forest products, particularly bushmeat and related products;
 - iii. Provide advice on appropriate alternative sustainable livelihood technologies and practices for the affected communities;
 - iv. Provide advice on appropriate monitoring tools.
- iv. Promote projects and activities that encourage the use and supply of alternative sources of energy to prevent forest degradation due to the use of firewood by local communities.
- v. Develop any necessary legislation for the sustainable management and harvesting of non-timber forest resources.
- vi. Solicit input from Parties, other countries and relevant organizations on ways and means to encourage and assist importing countries to prevent the entry of unsustainably harvested forest resources, which are not covered by the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and consider this information as a basis for further steps on this issue.

Objective 3

Enable indigenous and local communities to develop and implement adaptive community-management systems to conserve and sustainably use forest biological diversity.

Activities

Taking into account the outcome of the Ad Hoc Open-ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity:

- iv. Strengthen the capacity of, and provide incentives for, indigenous and local communities to generate opportunities for sustainable use of forest biodiversity and for access to markets;

- v. Strengthen the capacity of indigenous and local communities to resolve land rights and land use disputes in order to sustainably manage forest biodiversity;
- vi. Encourage the conservation and sustainable use of forest biological diversity by indigenous and local communities through their development of adaptive management practices, using as appropriate traditional forest-related knowledge;
- vii. Provide incentives for the maintenance of cultural diversity as an instrument to enhance forest biological diversity;
- viii. Develop and implement education and awareness programmes on traditional uses of forest biological diversity in accordance with Article 8(j);
- ix. Create an environment that fosters respect, and stimulates, preserves and maintains traditional knowledge related to forest biological diversity, innovations and practices of indigenous and local communities.

Objective 4

Develop effective and equitable information systems and strategies and promote implementation of those strategies for in situ and *ex situ* conservation and sustainable use of forest genetic diversity, and support countries in their implementation and monitoring.

Activities

- vi. Develop, harmonize and assess the diversity of forest genetic resources, taking into consideration the identification of key functional/keystone species populations, model species and genetic variability at the deoxyribonucleic acid (DNA) level.
- vii. Select, at a national level, the most threatened forest ecosystems based on the genetic diversity of their priority species and populations and develop an appropriate action plan in order to protect the genetic resources of the most threatened forest ecosystems.
- viii. Improve understanding of patterns of genetic diversity and its conservation in situ, in relation to forest management, landscape-scale forest change and climate variations.
- ix. Provide guidance for countries to assess the state of their forest genetic resources, and to develop and evaluate strategies for their conservation, both in situ and *ex situ*.
- x. Develop national legislative, administrative policy measures on access and benefit-sharing on forest genetic resources, taking into account the provisions under Articles 8(j), 10(c), 15, 16 and 19 of the Convention on Biological Diversity and in conformity with future decisions of the Conference of the Parties, as appropriate.
- xi. Monitor developments in new biotechnologies and ensure their applications are compatible with the objectives of the Convention on Biological Diversity with respect to forest biological diversity, and develop and enforce regulations for controlling the use of genetically modified organisms (GMOs) when appropriate.
- xii. Develop a holistic framework for the conservation and management of forest genetic resources at national, subregional and global levels.
- xiii. Implement activities to ensure adequate and representative in situ conservation of the genetic diversity of endangered, overexploited and narrow endemic forest species and complement the in situ conservation with adequate *ex situ* conservation of the genetic diversity of endangered, overexploited and narrow endemic species and species of economic potential.

GOAL 5

Access and benefit-sharing of forest genetic resources

Objective 1

Promote the fair and equitable sharing of benefits resulting from the utilization of forest genetic resources and associated traditional knowledge

Activities

Based on the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, as adopted by the Conference of the Parties at its sixth meeting⁽⁴⁸⁾:

- iv. Establish mechanisms to facilitate the sharing of benefits at local, national, regional and global levels.

- v. Strengthen capacity of indigenous and local communities to negotiate benefit-sharing arrangements.
- vi. Promote dissemination of information about benefit-sharing experiences through the clearing-house mechanism and appropriate means at the local level.

PROGRAMME ELEMENT 2: INSTITUTIONAL AND SOCIO-ECONOMIC ENABLING ENVIRONMENT

GOAL 1

Enhance the institutional enabling environment.

Objective 1

Improve the understanding of the various causes of forest biological diversity losses

Activities

- 3) Each Party to carry out, in a transparent and participatory way, thorough analysis of local, regional, national and global direct and underlying causes of losses of forest biological diversity. A distinction should be made between broad socio-economic causes such as demographic growth and more specific causes such as institutional weaknesses and market or policy failures.
- 4) Each Party on the basis of the above analysis to implement their recommendations.
- 5) Parties to report through the clearing-house mechanism of the Secretariat on successful experiences involving control and mitigation of the underlying causes of deforestation, which would make it possible to understand lessons learned.

Objective 2

Parties, Governments and organizations to integrate biological diversity conservation and sustainable use into forest and other sector policies and programmes.

Activities:

- d) Parties to formulate appropriate policies and adopt sets of priority targets for forest biological diversity to be integrated into national forest programmes, national sustainable development strategies, poverty reduction strategy papers, related non-forest programmes and national biological diversity strategies and action plans. Ensure that there is coherence and direct interaction between the different programmes.
- e) Seek ways of streamlining reporting between the different forest-related processes, in order to improve the understanding of forest quality change and improve consistency in reporting on sustainable forest management.
- f) Develop a set of indicators that might be used in assessing progress in implementing the national biodiversity strategies and action plans and relevant work programmes;
- g) Donor bodies and other financial institutions to incorporate forest biological diversity and sustainable use principles and targets into forest and related programmes, including watershed management, land-use planning, energy, transport, infrastructure development, education and agriculture, mineral exploitation, and tourism.
- h) Seek to harmonize policies at regional and subregional levels in the area of forest biological diversity.
- i) Develop strategies for effective enforcement of sustainable forest management and protected area regulations, including adequate resourcing and involvement of indigenous and local communities.
- j) Parties and donor bodies to develop and implement, strategies, in particular national financing strategies in the framework of national biodiversity strategies and action plans and national forest programmes, and provide adequate financial, human and technical resources.
- k) Encourage the Executive Secretary to coordinate and seek synergies between Convention on Biological Diversity, the United Nations Forum on Forests and the members of the Collaborative Partnership on Forests, including establishment of memoranda of understanding, as appropriate, between the Convention on Biological Diversity and the other members of the Collaborative Partnership on Forests, and recommend such an memorandum of understanding with the International Tropical Timber Organization and the United Nations Framework Convention on Climate Change as a first step.

- l) Increase emphasis on capacity-building, research and training, public education and awareness, access to and transfer of information and technology, technical and scientific cooperation, with focus on capacities required to address forest biodiversity-related issues.

Objective 3

Parties and Governments to develop good governance practices, review and revise and implement forest and forest-related laws, tenure and planning systems, to provide a sound basis for conservation and sustainable use of forest biological diversity.

Activities

- d) Develop appropriate measures and regulations to secure a permanent forest area sufficient to allow for the conservation and sustainable use of forest biological diversity.
- e) Seek to resolve land tenure and resource rights and responsibility, in consultation with all relevant stakeholders including for indigenous and local communities, in order to promote the conservation and sustainable use of forest biodiversity.
- f) Encourage Parties and countries to ensure that forest and forest-related laws adequately and equitably incorporate the provisions of the Convention on Biological Diversity and the decisions of the Conference of the Parties.
- g) Implement effective measures to protect traditional knowledge and values in forest laws and planning tools.
- h) Develop legislation, administrative or policy measures on access and benefit-sharing for forest genetic resources, taking into account the draft Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization.
- i) Invite Parties, Governments and other relevant organizations to submit case-studies and research on the role of performance bonds in forest concessions, in the conservation and sustainable use of forest biological diversity; and request the Secretariat to make these available.
- j) Parties, Governments and relevant stakeholders to develop mechanisms and processes to work toward good governance to promote conservation and sustainable use of forest biological diversity.
- k) Develop and apply environmental and socio-economic impact assessment methods as appropriate prior to land-conversion decisions.

Objective 4

Promote forest law enforcement and address related trade

Activities

- 100. Invite Parties, Governments and relevant organizations to provide information on a voluntary basis to enable a better comprehension of the effects of unsustainable harvesting, exploitation of other forest resources and associated trade, as well as on the underlying causes, on forest biological diversity. On the basis of dissemination of this information countries may decide to take relevant measures such as enforcement actions.
- 101. Evaluate and reform, as required, legislation to include clear definition of illegal activities and to establish effective deterrents.
- 102. Develop methods and build capacity for effective law enforcement.
- 103. Develop codes of conduct for sustainable forest practices in logging companies and the wood-processing sector to improve biodiversity conservation.
- 104. Encourage and support the development and implementation of tracking and chain-of-custody systems for forest products to seek to ensure that these products are legally harvested.
- 105. Invite Governments and relevant organizations to develop and forward to the Secretariat case-studies and research on the impacts of unsustainable timber and non-timber harvesting and related trade.

GOAL 2

Address socio-economic failures and distortions that lead to decisions that result in loss of forest biological diversity.

Objective 1

Mitigate the economic failures and distortions that lead to decisions that result in loss of forest biological diversity.

Activities

2. Develop mechanisms to ensure that monetary and non-monetary costs and benefits of forest biodiversity management are equitably shared between stakeholders at all levels.
3. Develop, test and disseminate methods for valuing forest biological diversity and other forest ecosystem goods and services and for incorporating these values into forest planning and management, including through stakeholder analysis and mechanisms for transferring costs and benefits.
4. Incorporate forest biological diversity and other forest values into national accounting systems and seek to estimate such figures for subsistence economies.
5. Elaborate and implement economic incentives promoting forest biological diversity conservation and sustainable use.
6. Eliminate or reform perverse incentives, in particular subsidies that result in favouring unsustainable use or loss of forest biological diversity.
7. Provide market and other incentives for the use of sustainable practices, develop alternative sustainable income generation programmes and facilitate self-sufficiency programmes of indigenous and local communities.
8. Develop and disseminate analyses of the compatibility of current and predicted production and consumption patterns with respect to the limits of forest ecosystem functions and production.
9. Seek to promote national laws and policies and international trade regulations are compatible with conservation and sustainable use of forest biological diversity.
10. Increase knowledge on monetary and non-monetary cost-benefit accounting for forest biodiversity evaluation.

GOAL 3

Increase public education, participation, and awareness.

Objective 1

Increase public support and understanding of the value of forest biological diversity and its goods and services at all levels.

Activities

- Increase broad-based awareness of the value of forest biological diversity through international, national and local public awareness campaigns.
- Promote consumer awareness about sustainably produced forest products.
- Increase awareness amongst all stakeholders of the potential contribution of traditional forest-related knowledge to conservation and sustainable use of forest biological diversity.
- Develop awareness of the impact of forest-related production and consumption patterns on the loss of forest biological diversity and the goods and services it provides.
- Increase awareness of the value of forest biological diversity amongst public authorities and decision makers through specific information and training actions.
- Implement effective measures to recognize, respect, protect and maintain traditional forest-related knowledge and values in forest-related laws and forest planning tools, in accordance with Article 8(j) and related provisions of the Convention on Biological Diversity.
- Develop awareness of the value of forest biological diversity among forestry workers, owners of forest land, logging contractors, and consulting firms.

PROGRAMME ELEMENT 3: KNOWLEDGE, ASSESSMENT AND MONITORING

GOAL 1

To characterize and to analyse from forest ecosystem to global scale and develop general classification of forests on various scales in order to improve the assessment of status and trends of forest biological diversity.

Objective 1

Review and adopt a harmonized global to regional forest classification system, based on harmonized and accepted forest definitions and addressing key forest biological diversity elements.

Activities

- a) Review and adopt a minimum forest classification for forest types, compatible with remote sensing technologies, that includes broad indicators of biodiversity that can be taken into account in all international and regional forest-related programmes, plans and activities.
- b) Adapt frequency of forest resource inventory at regional and global scales, where resources permit, preferably at least to every ten years.
- c) Review and contribute (from the biodiversity point of view) to standard forest definitions in cooperation with the United Nations Forum on Forests and the Collaborative Partnership on Forests to be used in global and regional reporting to the scale of forest types.

Objective 2

Develop national forest classification systems and maps (using agreed international standards and protocols to enable regional and global synthesis).

Activities

Review existing national forest ecosystem classification systems and maps.

Develop and apply national forest ecosystem classification systems and maps that include key components of forest biological diversity to be used in assessment reports on forest types including socio-economic and cultural aspects.

Use adapted technology, for example geographic information system, to develop a baseline for assessing levels of deforestation and impacts on biodiversity.

Objective 3

To develop, where appropriate, specific forest ecosystems surveys in priority areas for conservation and sustainable use of forest biodiversity.

Activities

- a. To identify and prioritize relevant areas to carry out these surveys.

GOAL 2

Improve knowledge on and methods for the assessment of the status and trends of forest biological diversity, based on available information.

Objective 1

Advance the development and implementation of international, regional and national criteria and indicators based on key regional, subregional and national measures within the framework of sustainable forest management.

Activities

- a. Advance the development and implementation of international, regional and national criteria and indicators based on key measures within the framework of sustainable forest management.
- b. Develop and select international, regional and national criteria and where appropriate quantifiable, indicators for forest biological diversity, taking into account, as appropriate, existing work and processes on criteria and indicators on sustainable forest management, as well as the knowledge held by indigenous and local communities. Such criteria and indicators should be used for assessment reporting at least 10-year intervals.

GOAL 3

Improve understanding of the role of forest biodiversity and ecosystem functioning.

Objective 1

Conduct key research programmes on the role of forest biodiversity and ecosystem functioning.

Activities

- a. Develop and support focused research to improve understanding of the relationship between forest biological diversity and ecosystem functioning, taking into account forest ecosystem components, structure, functions and processes to improve predictive capability.

- b. Develop and support research to understand critical thresholds of forest biological diversity loss and change, paying particular attention to endemic and threatened species and habitats including forest canopies.
- c. Develop and apply forest ecosystem restoration techniques to address biodiversity loss at the ecosystem level.
- d. Develop and support research on impact of current forest management practices for forest biodiversity within forests and on adjacent land.

GOAL 4

Improve the infrastructure for data and information management for accurate assessment and monitoring of global forest biological diversity.

Objective 1

Enhance and improve the technical capacity at the national level to monitor forest biological diversity, benefiting from the opportunities offered through the clearing-house mechanism, and to develop associated databases as required on a global scale.

Activities

- a. Develop and implement a strategy and a plan of action and facilitate transfer of technology to provide infrastructure and training in developing countries, in order to monitor forest biological diversity and develop associated databases.

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| (41) | UNEP/CBD/SBSTTA/7/INF/3. |
| (42) | UNEP/CBD/COP/6/INF/7. |
| (43) | UNEP/CBD/COP/6/INF/6. |
| (44) | UNEP/CBD/COP/6/INF/26. |
| (45) | UNEP/CBD/COP/6/INF/9. |
| (46) | UNEP/CBD/COP/6/INF/7. |
| (47) | UNEP/CBD/SBSTTA/7/7. |
| (48) | See decision VI/24 A. |



Road Through Mabira always wet



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