THE REPUBLIC OF UGANDA

GUIDELINES AND ACTION PLAN FOR FINANCING BIODIVERSITY CONSERVATION IN UGANDA 2015 -2025

NEMA
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MAY 2015

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FOREWORD

Uganda has unique and rich biodiversity ranging from diverse ecosystems like forests, wetlands, rangelands, hilly and mountainous areas coupled with diverse species of plants and animals including the endangered mountain gorilla. Since signing and ratifying the United Nations Convention on Biological Diversity (CBD), Uganda has actively pursued implementation of objectives of the Convention. Government has put in place enabling policy, legal and institutional framework for biodiversity conservation and management. The Constitution of the Republic of Uganda has a specific provision on biodiversity. Issues on biodiversity have been mainstreamed in the National Vision 2040 and the National Development Plan.

Implementation of the CBD is coordinated by the National Environment Management Authority (NEMA) on behalf of Government. NEMA works closely with relevant Government Ministries, Departments and Agencies (MDAs) as well as research institutions, the academia, NGOs, representatives of the Indigenous Peoples and Local Communities (IPLC) in the implementation of various programmes and activities on biodiversity in the country.

In terms of resource mobilization, Government designated the Ministry of Finance, Planning and Economic Development (MoFPED) as the CBD Resource Mobilization Focal Point. Furthermore, MoFPED fully participated in the review and updating of the National Biodiversity Strategy and Action (NBSAP). The Mainstreaming of Biodiversity in the National Vision 2040 and NDP was a result of participation of the National Planning Authority (NPA) in the NBSAP and also on matters concerning Environment and Natural Resources (ENR) in general. Biodiversity is therefore well anchored at the strategic level in Uganda and this will facilitate planning for biodiversity at the national, district and lower government levels.

These guidelines and action plans for financing biodiversity conservation in Uganda were developed as outcome of a study that was carried out taking into account the decision X/3 and XI/4 of the Conference of the Parties to CBD. Besides Government expenditure for biodiversity, the study also examined the potential of innovative mechanisms such as environmental fiscal reforms, payments for ecosystem services, conservation trust funds, biodiversity offsets, biodiversity in climate change funding, biodiversity in international development finance and green markets. These guidelines and plans actions have highlighted the potential of each of these innovative financial mechanisms in resource mobilization for biodiversity conservation.

Increasing funding for biodiversity is very critical to Uganda's socio-economic development. The economy is heavily dependent on natural resources and biodiversity forms a significant part of the natural resources. Biodiversity provides critical ecosystem services for other sectors like agriculture, water and energy. The tourism sector in Uganda was estimated to have generated US$2 billion to the economy in 2013 and this was 7.9% of GDP. The tourism sector accounted for 6.8% (452,000) of new jobs created in 2013.

Despite the importance of biodiversity to socio-economic development and livelihood improvement, the current level of funding is not adequate to meet the challenges of biodiversity management in Uganda like habitat conversion, pollution, invasive alien species, illegal wildlife trade, over-exploitation among others. In 1900 Uganda's forest cover stood at 50% of the total land cover equivalent to 12.1 million ha. This reduced to 4.9 million ha in 1990 and further down to 3.6 million ha in 2005. It is estimated that by 2012 the forest cover was 2.97 million ha.

Deforestation and land degradation is estimated to cost 17% of the Gross Domestic Product (GDP). Land degradation is estimated to cost Uganda US$ 625 million annually. The fisheries sub-sector for example contributes 2.5% of the national GDP and 12% of the agricultural GDP. In 1999 export from fisheries sub-sector was 4.751 tonnes which generated US$5.3 million. The export peaked in 2006 with 32,855 tonnes generating US$136.8 million. But in 2012 the tones exported dropped to 26, 574 tonnes and so did the revenue (US$56.8 million).

Currently it is estimated that US$670 million is needed annually to enable Government and stakeholders involved in biodiversity conservation to effectively implement conservation programmes. So far only US$215 million is realised leaving a funding gap of US$$455 million. Government of Uganda will work closely with all stakeholders and development partners to mobilize additional resources to address this funding gap.

The development of these Guidelines and Action Plan for Financing Biodiversity Conservation in Uganda is a step in the right direction for mobilizing resources for implementing the National Biodiversity Strategy and Action (NBSAP) and other biodiversity related programmes in the country. It will among others be used to provide guidance to MoFPED in the allocation of resources for biodiversity conservation during the Government planning and budgeting processes.

The development of the Guidelines has raised Uganda's profile on resource mobilization for biodiversity conservation at the regional and global level. Two workshops related to resource mobilization have been hosted in Uganda. In July 2013 Uganda hosted a workshop on Mainstreaming Biodiversity and Development organized in collaboration with IIED, UNEP-WCMC and UNDP. In February 2014 Uganda hosted a CBD regional workshop resource mobilization for Africa.

Uganda is among the 19 pilot countries participating in the UNDP Biodiversity Finance Initiative (BIOFIN) project supported by the European Union. The project will assist Government in identifying, accessing, combining and sequencing sources of biodiversity funding to meet Uganda's financing gap for conservation and sustainable use of biological diversity stated above through development of a resource mobilization plan.

I call upon all stakeholders involved in biodiversity conservation to make use of these Guidelines in mobilizing resources for biodiversity conservation.

Biodiversity is the foundation for human wellbeing, national development and wealth creation.

Hon. Flavia Munaaba Nabugere
MINISTER OF STATE FOR ENVIRONMENT

ACKNOWLEDGMENT

The development of the Guidelines and Action Plans for Financing Biodiversity Conservation in Uganda was undertaken through wide stakeholder consultations. It was done concurrently with the review and updating of the NBSAP. I therefore extend appreciation to all institutions and individuals who contribute to the development of the Guidelines. NEMA is especially grateful to the following institutions for their active participation in development of the Guidelines:

The Office of the Prime Minister

The Ministry of Water and Environment

The Ministry of Tourism, Wildlife and Antiquities

The Ministry of Agriculture, Animal Industry and Fisheries Department of Fisheries

The Minister of Finance, Planning and Economic Development

The National Planning Authority

District Local Governments

Uganda National Council for Science and Technology

National Agricultural Research Organisation

National Chemotherapeutic Research Institute

Technical Committee on Biodiversity Conservation

Thematic Working Groups for the Review and Update of the NBSAP

The National Forestry Authority

Wetland Management Department

Uganda Wildlife Authority

Uganda Export Promotion Board

Uganda Bureau of Statistics

Climate Change Unit, Ministry of Water and Environment

Natural Chemotherapeutic Research Institute

Makerere University

Wildlife Conservation Society

Aquaculture Research and Development Centre

Economic Policy Research Centre

International Union for the Conservation of Nature

World Wide Fund for the Conservation of Nature

International Gorilla Conservation Programme

Representatives of the Indigenous Peoples and Local Communities

Nature Harness Initiatives

Chimpanzee Sanctuary and Wildlife Conservation Centre

ENR Africa Associates

United Nations Environment Programme (UNEP)

United Nations Development Programme (UNDP)

Nature Uganda

Care Uganda

NEMA is grateful UNEP for assisting Uganda to access resources from the GEF which made it possible for this guidelines to be development and also grateful to UNDP for providing the financial resources for the printing, dissemination and training of Government technical staff on the use of the Guidelines

In a special way I would like to thank Mr. Sabino Francis Ogwal who provided overall coordination on behalf of NEMA during the development of the Guidelines. Mr. Ogwal was instrumental in providing guidance on matters on resource mobilization within the framework of the CBD. He guided the process very well right from the study that was undertaken on financing biodiversity in Uganda to the development of the Guidelines. Since the development of the Guidelines was undertake currently with the review and updating of the NBSAP, it needed a lot of commitment. Mr. Sabino Francis Ogwal ably did both and I commend him for the work well done. I also thank Ms Monique Akullo, Dr. Evelyn Lutalo and Mr. Ronald Kaggwa for supporting Mr. Sabino Francis Ogwal.

Lastly I thank NEMA management for the input they provided during the development of the Guidelines. The development of the Guidelines is in line with one of the functions of NEMA as spelt out in the National Environment Act Cap 153 which is to mobilize, expedite and monitor resources for environmental management. NEMA will provide training to the relevant stakeholders on the use of these Guidelines.

The Guidelines will be reviewed at five year intervals to ensure that it remains relevant to the emerging challenges on biodiversity conservation in Uganda, regionally and globally.

Dr. Tom .O. Okurut
EXECUTIVE DIRECTOR
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

ACRONYMS

BIOFIN	Biodiversity Finance Initiative
BMCA	Bwindi-Mgahinga Conservation Area
BMCT	Bwindi Mgahinga Conservation Trust
CAADP	Comprehensive Africa Agricultural Programme
CBD	Convention for Biological Diversity
CBD	United Nations Convention on Biological Diversity
CCBA	Climate Community and Biodiversity Alliance
CCU	Climate Change Unit
COP	Conference of Parties
CSO	Civil Society Organisation
CSWCT	Chimpanzee Sanctuary and Wildlife Conservation Trust
DLGs	District Local Governments
DWRM	Directorate of Water Resources Management
FIEFOC	Farmer Income Enhancement and Forest Conservation Project
GEF	Global Environment Facility
GV TES	Greater Virunga Transboundary Executive Secretariat
HIPC	Highly Indebted Poor Countries
IIED	International Institute for Environment and Development
IGCP	International Gorilla Conservation programme
IUCN	World Conservation Union/International Union for the Conservation of Nature
IPLC	Indigenous Peoples and Local Communities
LTEF	Long Term Expenditure Framework
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
MDA	Ministries, Departments and Agencies
MoFPED	Ministry of Finance Planning and Economic Development
MoLG	Ministry of Local Government
MTEF	Medium Term Expenditure Framework
MTI	Ministry of Trade and Industry
MTWA	Ministry of Tourism, Wildlife and Antiquities

MWE	Ministry of Water and Environment
NAFIRRI	National Fisheries Resources Research Institute
NAFORRI	National Forestry Resources Research Institute
NARO	National Agricultural Research Organisation
NBSAP	National Biodiversity Strategy and Action Plans
NEMA	National Environment Management Authority
NDP	National Development Plan
NFA	National Forestry Authority
NPA	National Planning Authority
OECD	Organisation for Economic Cooperation and Development
PAF	Poverty Action Fund
PMA	Plan for Modernisation of Agriculture
SPR	Sector Performance report
UBOS	Uganda Bureau of Statistics
UEPB	Uganda Export Promotions Board
UNCST	Uganda National Council of Science and Technology
UNDP	United Nations Development Programme
UNEP-WCMC	United Nations Environment Programme –World Conservation Monitoring Centre
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UWA	Uganda Wildlife Authority
UWEC	Uganda Wildlife Education Centre
VCS	Verified Carbon Standard

EXECUTIVE SUMMARY

These guidelines and action plans aim at establishing appropriate guidance to enable mobilization and proper use of financial resources for financing biodiversity conservation in Uganda. The guidelines and actions plan will address the significant financial barriers to effective implementation of the NBSAP and other national biodiversity conservation plans and programmes in the country. In Uganda's National Development Plan (NDP), biodiversity is characterised as one of the components of the environment sector, an enabling component of the NDP. Therefore, biodiversity conservation is an important driver than enhances the performance of primary and secondary sectors such as agriculture, forestry, tourism and industry.

The guidelines and action plans for financing biodiversity conservation in Uganda are divided into two Parts. The Part one describes the background information, highlights status of biodiversity conservation systems in the country, the status of financing for biodiversity conservation and strategy for financial resources mobilization. The Part two comprises the guidelines and action plans.

The guidelines state the strategy for resources mobilization and governance for financing biodiversity conservation. The strategy for resource mobilization prioritises environmental fiscal reforms, government support, carbon finance and green markets and donor support, as well as payments for ecosystem services and biodiversity offsets. The timeline for implementing these guidelines and action plans is 2015 and 2025. The action plans for financing biodiversity conservation in Uganda are listed below:

(i) Operationalize national biodiversity resource mobilisation focal point & governance framework

(ii) Coordination

(iii) Management of biodiversity in protected areas

(iv) National Biotrade Programme

(v) Regulations on access to genetic resources and benefit sharing

(vi) Information sharing mechanisms

(vii) Implementation of National Invasive Species Strategy and Action Plan

(viii) local communities participation in biodiversity management

(ix) Integration of indigenous knowledge & practices in biodiversity conservation

(x) Public awareness on biodiversity

(xi) Biotechnology and Biosafety

(xii) Inland Water Biodiversity

(xiii) Agro-biodiversity

(xiv) Mountain Biodiversity

(xv) Biodiversity and Climate Change

(xvi) Environmental impact assessment for biodiversity conservation

The financing gap for biodiversity finance stands at $455 million/year, although resource requirement stands at $670 million/year. The guidelines and action plans indicate a strategy for mobilising finances and the biodiversity conservation actions to be undertaken between 2015 and 2025. The Guidelines will be reviewed two years before it expires to give another life span of 10 years.

PART 1

1. INTRODUCTION

2. STATUS OF BIODIVERSITY CONSERVATION SYSTEMS

3. STATUS OF FINANCING FOR BIODIVERSITY CONSERVATION

4. STRATEGIES FOR RESOURCE MOBILISATION

1. INTRODUCTION

The guidelines and action plan for financing biodiversity conservation in Uganda were developed after consultations with stakeholders involved in biodiversity conservation. The activity was coordinated by the National Environment Management Authority (NEMA), with financial support from Global Environment Facility (GEF) through the United Nations Environment Programme (UNEP). These guidelines and action plans provide a platform for all stakeholders to mobilize, and appropriately use, financial resources for biodiversity conservation in Uganda. The guidelines and action plans are divided into two sections. The first section comprises of the introduction, status of biodiversity conservation in Uganda, status of financing for biodiversity conservation, resource mobilization strategies for biodiversity conservation. The second section is composed of the guidelines and action plans for financing biodiversity conservation in Uganda.

1.1 National context and importance of biodiversity conservation

Uganda signed the Convention on Biological Diversity (CBD) on 12th June 1992 and ratified the convention on the 8th September 1993, as an expression of full commitment by the Government to promote sustainable management biodiversity in Uganda. Uganda signed the Cartagena Protocol on Bio-safety on the 24th May 2000 and ratified it on 30th November 2001. Uganda acceded to the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing on 25th June 2014. Furthermore Uganda acceded to the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety on 25th June 2014.

Biodiversity is be defined as the variability among living things from all sources including, inter alia, terrestrial and aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and ecosystems (NEMA 2014). Uganda has over 7.5% of mammals species, 10.2% of bird species (of 33 International Bird Areas - IBAs), and 6.8% of butterflies species that are globally recognized (Ogwal 2011). At the international and national level, Uganda's major biodiversity conservation areas and hotspots include: Mgahinga Gorilla National Park and Bwindi Impenetrable National Park for the mountain gorillas and other regionally and globally important species; Rwenzori Mountain National Park for bay duiker among others; Sango bay wetlands and forest ecosystem and important tree species of global significance; Dry mountains of Karamoja for regionally and globally important plant species; Lake Victoria for cichlid and Nile perch species and Papyrus swamps of Lake Edward, George and Bunyonyi have the endemic papyrus species (NEMA 2002).

The NBSAP provides a framework for biodiversity conservation in Uganda. It is a tool for implementing the Convention on Biological Diversity and the Protocols made under the Convention namely the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing. The seven strategic objectives of the country's NBSAP are to:

1. Strengthen stakeholder co-ordination and frameworks for biodiversity management
2. Facilitate and enhance capacity for research, monitoring, information management and exchange on biodiversity
3. Put in place measures to reduce and manage negative impacts on biodiversity

4. Promote the sustainable use and equitable sharing of costs and benefits of biodiversity
5. Enhance awareness and education on biodiversity issues among the various stakeholders
6. Harness modern biotechnology for socio-economic development with adequate safety measures for human health and the environment
7. Promote innovative sustainable funding mechanisms

The Strategic Plan for Biodiversity 2011-2020 and its 20 the Aichi targets were adopted at the tenth meeting of the Conference of Parties in Nagoya, Japan, in 2010. They cover five strategic goals namely: (i) addressing the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society; (ii) reducing the direct pressures on biodiversity and promote sustainable use; (iii) improving the status of biodiversity by safeguarding ecosystems, species and genetic diversity; (iv) enhance benefits to all from biodiversity and ecosystem services; and (v) enhance implementation through participatory planning, knowledge management and capacity building (details in Annex I).

These guidelines and action plan adopt the CBD standard definition for biodiversity. Biodiversity is a fundamental element of the earth's life support system and is the basis for all ecosystem services and thus plays a fundamental role in maintaining and enhancing the world's population as it supports many basic natural services for humans for example fresh water, fertile soils and clean air.

Biodiversity forms the foundation for human wellbeing and economic development. Over 80 percent of the population in Uganda depends on subsistence agriculture for their livelihoods. In the early 2000s, biodiversity was estimated to contribute about US $1billion/year in monetary, non-monetary and informal sectors, and through provision of ecological services (Emerton and Muramira 1999; UNESCO 2011). Whereas no coalesced value of biodiversity has been estimated in recent times, the forestry resources alone are estimated to contribute a biodiversity value close to $1billion/year (NEMA 2012). It is therefore expected that the value of biodiversity more than 10-times the value estimated over a decade ago.

1.2 Motivation for developing these guidelines and action plan

The main motivation for developing guidelines and action plans for financing biodiversity conservation is to address the significant financial barriers to effective implementation of biodiversity conservation strategies, actions and activities in the country (NEMA 2002, 2009). By implementing these guidelines, the country also fulfils its obligations under Decision x/3 of the CBD conference of parties on "developing a strategy for financial resource mobilization". The guidelines and action plans address the main obstacles highlighted in the review of Uganda's fifth National Report to the CBD (NEMA 2014). These are:

(i) Inadequate financial resources for implementation of planned activities and programmes;

(ii) Inadequate human and infrastructure capacity in relevant fields of biodiversity conservation;

(iii) Lack of a central node/clearing house mechanism to facilitate financing for biodiversity conservation; (iv) inadequate enforcement and compliance to environmental legislations;

(iv) Insufficient information on economic value of biodiversity in the country; and

(v) Inadequate managerial and technical capacity at Local Government levels for implementation of NBSAP.

Budgetary allocations from Uganda's central government occur at the sector level. The primary sectors and/or sub-sectors are: the Environment and Natural Resources Sub-sector and its agencies National Forestry Authority (NFA), National Environment Management Authority (NEMA) and Climate Change Unit (CCU); Tourism and Wildlife sub-sector in the Ministry of Tourism, Wildlife and Antiquities (MTWA) and its agencies; Uganda Wildlife Authority (UWA) and Uganda Wildlife Education Centre (UWEC); and agriculture sector in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) with agencies such as National Agricultural Research Organization (NARO) and National Genetic Research Centre and Data Bank (NGRC&DB). All other sectors of government were categorized as indirect.

Donor financing: The Global Environmental Facility has over the years provided Uganda with considerable financial support for Biodiversity projects (See Annex II). Out of the $3.9 million allocated under GEF 4, between 2006 and 2010, $2.4 million was utilized. Under GEF 5, $10.89 million was the indicative allocation for biodiversity conservation activities in Uganda. Economic instruments: NEMA, NFA, UWA and other government agencies implement a set of financial instruments such as the Wetland Permits, Environment Impact Assessment Certification fees, Effluent Discharge permits, grazing permits in forest reserves, fishing permits and registration for boats, and National Park entry fees. However, only a few of these instruments are directly linked to the efforts of biodiversity conservation. The funds are either kept in the consolidated fund (Central Government) or as Institutional Funds and distributed in general priority ranking with limited focus on biodiversity conservation.

In decision X/3 on the strategy for resource mobilization in support of the achievement of the the CBD provides for: (i) concrete activities and initiatives including measurable targets and/or indicators to achieve the strategic goals contained in the strategy for resource mobilization and on indicators to monitor the implementation of the Strategy; and (ii) review of implementation of the Convention's strategy for resource mobilization (see Annex III). Goal 4 of the CBD Strategy for Resource Mobilization seeks to "Explore new and innovative financial mechanism at all levels with a view to increasing funding to support the three objectives of the Convention (OECD 2013). The targets for Goal 4 are: payments for ecosystem services, biodiversity offset mechanisms, environmental fiscal reforms, markets for green products, business-biodiversity partnerships and new forms of charity, international development finance and funding mechanisms for climate change.

1.3 Methodology Used

1.3.1 Design of Guidelines

The design of guidelines and action plans for biodiversity conservation financing in Uganda relied on expert judgment, and was implemented alongside development of the Uganda's second NBSAP report. The guidelines and action plans applied institutional review and expenditure reviews with the NBSAP as the main policy guide for actors engaged in biodiversity conservation in Uganda. The financing gap for biodiversity conservation was developed from the expenditure review, for 2005/6 – 2011/12, and with current status of financing focusing on 2012/13 due to availability of reports and data.

A review of current resource mobilization strategies was considered alongside the expenditure review (MFPED 2014; CBD 2014a; CBD 2014b), while the guidelines outline the proposed resource mobilization strategies to bridge the gap of resources required. The financing strategy was costed through action planning stage, where sixteen action plans largely developed from the NBSAP report were outlined. The NBSAP process had already applied a pressure – stature and root cause analysis and prioritised biodiversity conservation issues in the country.

Costing was undertaken using output based budgeting where the target to be achieved is bridge the financing gap for biodiversity conservation in Uganda, through implementing Decision X/3, while also implement current obligations of Uganda's Biodiversity conservation stakeholders. Therefore activities for achieving proposed targets were costed based on current prices (complete budgeting) and additional inputs required for achieving targets and the time frame 2014 – 2020.

1.3.2 Data Used

For expenditure review data required was budgeting allocations as well as annual expenditures for primary biodiversity conservation sectors and agencies. Those considered were environment and natural resources sub-sector, the agricultural sector, and tourism, wildlife and antiquities sub-sector, government research activities as special ENR sub-sector as well as activities by NGOs linked to primary sectors were also considered. Data for institutional analysis comprised of set up of sectors and agencies involved in biodiversity conservation, roles and responsibilities. The institutional data also considered elements of how financial resources are acquired either on-budget or off-budget. Policy analysis data considered covered the breadth of biodiversity conservation priorities in the fourth and fifth NBSAP reports.

Data was largely collected through literature review with checks on website of different institutions. There was data collected from libraries and NBSAP stakeholders' offices such as UWA, NEMA, NFA and Ministry of finance. Some data was obtained through key informant interviews (Annex V) with staff of NEMA, UWA, Ecotrust as well as feedback from stakeholders involved in the development of the fifth NBSAP report.

1.3.3 Analytical Approach

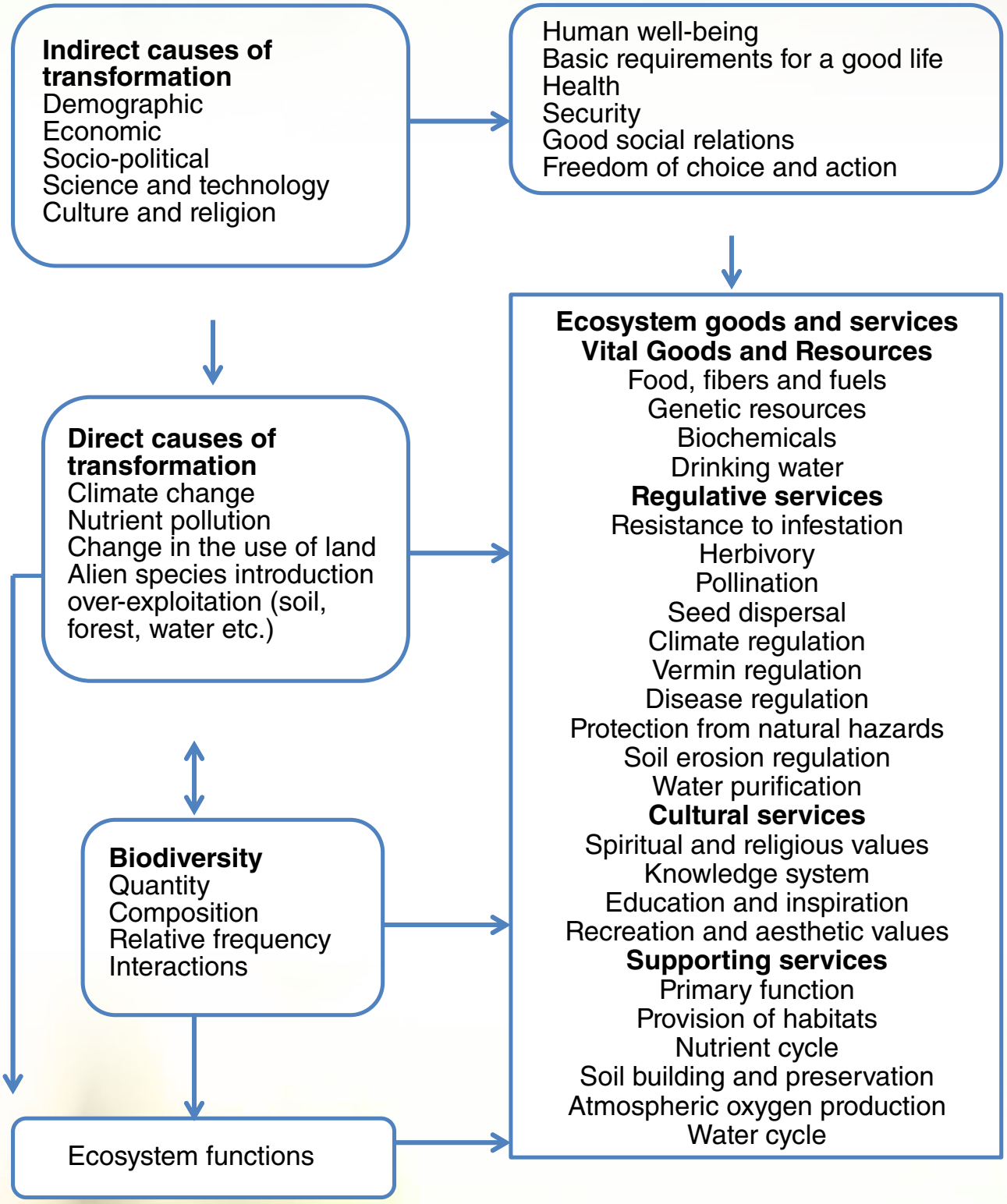
Institutional review and expenditure review benefited from consensus developed at the feedback sessions with stakeholders in the development of the fifth NBSAP report. The NBSAP stakeholders agreed on primary sectors and sub-sectors to be included in the institutional and expenditure review as those listed in the NBSAP report (MFPED 2014; CBD 2014a; CBD 2014b). All sectors and sub-sectors that are primary to biodiversity conservation finance were considered wholly in the expenditure review; while non-primary sectors and sub-sectors were not considered in the expenditure review.

Whereas non-primary sectors undertake biodiversity conservation activities they will be attributed appropriately under the primary sectors instead of being spread out. For example if the Ministry of Works and Transport undertook infrastructure developments and mitigation interventions involving forestry and/or wetland restoration, the actions should be attributed to the primary sector because the full cost of degradation and mitigation action will be better accounted for there than in the Ministry of Works and Transport. Therefore institutional expenditure review carries the actions in biodiversity conservation in totality, even though they attributed to the core sectors that are responsible for coordinating all biodiversity conservation by institutional obligation.

Expenditure revenues were undertaken by assessing performance of the output based budgeting and cash budgeting approaches employed by government as well as complete budget assessment for off-budget resources such as non-tax revenue (NTR) and grants among others. Costing was through complete activity costing for additional actions needed to achieve the proposed targets. The targets are bridging the gap in financing for biodiversity conservation, implementing NBSAPs, and achieving institutional obligation of biodiversity conservation stakeholders, according to national and international obligations, including Decision X/3.

Figure 1 shows how biodiversity is transformed due to several factors. Simultaneously, it has an impact on ecosystem functions and contributes both directly and indirectly to the provision of ecosystem goods and services.

Figure 1: Biodiversity cycles with ecosystems, human well-being and ecosystem services



Source: Secretariat of the Convention on Biological Diversity (2006): Global Biodiversity Outlook 2

2. OVERVIEW OF THE STATUS OF BIODIVERSITY IN UGANDA

This section consists of a brief description of how biodiversity conservation takes place in Uganda. The description is based on the reporting process for developing Uganda's fifth national Report to the CBD and the previous national reports namely the fourth national report of 2009; third national report of 2006; second national report of 2001 and the first national report of 1998. The section also introduces values that have been used for estimating contribution of biodiversity to livelihoods in Uganda.

2.1 Status of biodiversity conservation systems

Biodiversity conservation in Uganda generally occur at ecosystem level aggregating protected areas of forests and wildlife (includes savannas), fisheries, wetlands, and biodiversity on private land such as agro-ecosystems, savannas and grasslands. However, institutional arrangements also exist for biodiversity at species level and at genetic level (Table 1) even though the ecosystem level is the dominant management system.

Table 1: General groupings of biodiversity

Biodiversity by ecosystem	Species level	Genetic level
Mountains Forests Grasslands and savannah Wetlands Freshwater resources Outside protected areas Agro-ecosystems	Birds Fish Reptiles Amphibians Higher plants Lower plants Micro-organisms Agricultural biodiversity	Crops: sorghum, finger millet, yams, cowpeas, castor, passion fruit, jack fruit, wild straw berries, wild berries, highland paw paws Grasses-lemons Forage legumes, lab-lab, dolichos Local vegetables – amarantha Plants with pesticide properties – neem tree and castor

Source: NEMA 2009

Biodiversity at ecosystem level*:* These comprises of the following ecosystems (Table 2): mountains; forests; grasslands (and savannas); wetlands; fresh water (aquatic); Protected Areas (PAs); biodiversity outside PAs; and agro-ecosystems (NEMA 2009).

Table 2: Description of biodiversity at ecosystem level

Ecosystem	Description of biodiversity	Threats to biodiversity
Mountains –	All mountains in Uganda rising above 2800 metres are accorded a protected area status, either as National parks or as forest reserves. The most prominent mountains are Rwenzori Massif which rises to an altitude of 5120 metres, the 3rd highest in Africa. Others are Elgon, Moroto, Napak mountains.	• Human encroachment on the lower slopes for cultivation and livestock grazing • Uncontrolled exploitation of natural resources e.g. deforestation for wood fuel • Pollution from improper disposal by tourists • Climate change and habitat change • Seasonal fires
Forests –	Uganda has forests in protected areas managed by NFA (central forest reserves), UWA (national parks and game reserves), Local Governments (local forest reserves) and forests on private land. Forest land cover has been declining at a rate of 1.8% per annum, with the highest losses occurring in well stocked Tropical High Forest (2%) and woodlands (2%). Whereas softwood plantations have been increasing at a rate of 1% per year, they represent the smallest fraction (less than 1%) of total forest cover in the country.	• Overharvesting due to poor planning, weak enforcement of laws and inappropriate forest harvest and processing • Invasive species such as *lantana camara* in Eastern Uganda and senne species in Budongo forest reserves (mid-west) • Encroachment of protected areas and local forest reserves and • Indirect drivers like high population growth and demand for timber and especially fuel wood.
Grasslands/ and savannas *Strategic Management Partners*	Grasslands or savannas cover more than 50 % of the land area of Uganda and are dominated in different locations by species as diverse as grasses, palms or acacias. The remaining pockets of natural savannas and grasslands cover approximately three million hectares and are primarily found in various protected areas	• Much of this habitat has been converted to human use for agriculture and grazing.
Wetlands .	Wetlands cover about 15 percent (31,406 km2) of Uganda's total land area. With 11 sites designated as Wetlands of International Importance, regionally and globally important for migratory bird species and biodiversity (Ramsar, 2006). Most wetlands lie outside protected areas.	• Unsustainable resource harvesting • Habitat loss through agricultural conversion, industrial development and burning and • Inadequate enforcement of legislation, regulations and compliance on wetland use
Fresh water (aquatic) ecosystem	Of the total area in Uganda, approximately 15.3% is open water. Open water is a category that includes major lakes such as Lake Victoria, Lake Kyoga, Lake Albert, Lake Edward and Lake George and over 160 smaller lakes, various stretches of the Nile River and rivers, streams and water bodies. Lake Victoria alone more than 600 species of cichlid fish have been found, with 102 species.	• Introduction of exotic species, including the Nile perch and other fish species, and invasion of aquatic systems by water hyacinth, agricultural runoff, clearing of the forest in key catchments. • Overexploitation and improper exploitation of fisheries resources due to inadequate control of activities and harvesting methods; • Degradation of habitat through pollution and conversion;

Ecosystem	Description of biodiversity	Threats to biodiversity
Biodiversity in Protected Areas	Protected Areas (covering approximately 16.3% of Uganda's total land area) include Central Forest Reserves (under National Forestry Authority), Local Forest Reserves (Local Governments), National Parks and Wildlife Reserves (Uganda Wild Life Authority). Approximately 47% of Protected Areas (PAs) are forestland & 37% grasslands.	• Loss of habitat is most serious negative factor • Illegal grazing in National Parks by local communities neighbouring the parks reduces the grazing capacity of National Parks. • Increasing economic activities e.g. development of oil and gas industry an increased human population of workers to operate and maintain oil and gas and infrastructure pressure on PAs.
Biodiversity outside PAs	A few areas outside the PA system with considerable populations of mammals have been identified in several rangelands in Uganda e.g. former Ankole Ranching Scheme; other areas in districts are Kiboga and Luwero. Species of woody plants include restricted range species e.g. *Rytgyinia sp.* in Iganga District. Aquatic biodiversity mostly outside PA system.	• The greatest danger to these species is the lack of a comprehensive management programme • Also, regulation is often poor as there is high risk of conflict between communities, local governments and UWA, which is mandated to manage all wildlife
Agro-ecosystems	The main land-related environmental issues facing Uganda today is land degradation. Although some parts of Uganda remain relatively under-cultivated and not experiencing significant degradation problems, e.g. Gulu, Lira, Apac, Katakwi and Kitgum districts, the rest face serious land degradation problems. The main causes of land degradation are: high population growth rates; poor methods of cultivation, deforestation, bush burning, and overgrazing. These factors have had a negative impact on food production.	**Soil erosion** The principal manifestation of land degradation in Uganda is soil erosion, caused by surface runoff or wind. Soil erosion accounts for over 80% of the total cost of environmental degradation. Overgrazing by traditional herders (pastoralists) is also contributing to land degradation. **Bush burning** As a result of custom, culture or social habits, Ugandans living in predominantly rangeland areas engage in annual bushfires. **Agrochemicals** cause of land degradation due to pollution. To date, Uganda's agriculture is generally low-input low-yield technology.

Source: NEMA 2009

Biodiversity at species level: In Uganda, knowledge of the species present is confined to the more known taxa such as birds, mammals, butterflies, higher plants, reptiles, amphibians and fish (Table 3). This is because of their relative conspicuousness and their economic importance. Little is known about the less conspicuous and lower. Nonetheless important forms of life such as belowground biodiversity are often described.

Table 3: Recorded flora and fauna species in Uganda

Taxon	Total number of species	% of global species	No. of globally threatened species
Amphibians	86	1.7	10
Birds	1,012	10.2	15
Butterflies	1,242	6.8	-
Dragon flies	249	4.6	-
Ferns	389	3.2	-
Fish	501	2.0	49
Flowering plants	4,500	1.1	40
Fungi (poly pore)	173	16	-
Liverworts	275	46	-
Mammals	345	7.5	25
Molluscs	257	0.6	10
Mosses	445	3.5	-
Reptiles	142	1.9	1
Termites	93	3.4	-
Other invertebrates	-	-	17

Source: NEMA 2009

Biodiversity at Genetic Level: Plant genetic resources (PGR) in Uganda range from little known indigenous wild fruits and vegetables, pastures and forages, medicinal plants, indigenous staples like millet and sorghum to introduced crops such as maize, tobacco, coffee, cotton and beans. This PGR is distributed across the diverse ecological zones of Uganda.

In terms of domestic livestock, the indigenous breeds of cattle are the main source of beef in the country and form almost 95% of the total cattle population. There are concerns that adopting exotics and/or cross-breeding indigenous breeds could lead to displacement of indigenous species by the introduced breeds. Genetic characterization of populations in Uganda for both wild and domestic species is at a relatively rudimentary stage although there are reasonable advances in some taxa such as the tilapines. There is therefore little information regarding genetic diversity in Uganda. More information on various aspects of biodiversity at the genetic level can be found throughout this report especially under agro-biodiversity and in Appendix IV A (Progress towards targets of the Global Strategy for Plant Conservation).

2.2 Status of information on the valuation of biodiversity

The Uganda biodiversity assessment conducted by IUCN (Emerton & Muramira 1999) estimated that quantifiable economic benefit of Uganda's biodiversity was at least $ 770 million/year. The economic cost of biodiversity conservation was estimated at $ 350 million/year. The economic cost was largely attributed to opportunity cost (80%), and other economic losses (19%) associated with biodiversity conservation. Management costs were estimated at only 1% per year at the time.

Wetlands: The cost to the economy of encroachment into wetlands was estimated at US$1.2 million per year (Moyini et al. 2004). The loss of wetlands leads to the loss of traditional grazing land, loss of water storage capacity (groundwater), the loss of biodiversity, and pollution of water bodies (Moyini et al. 2004). A recent assessment of the total economic contribution of wetlands in three agro-ecological zones in Uganda produced updated results on the per hectare net benefit of wetlands. For the three agro-ecological zones of southwestern farmlands, Lake Victoria crescent and the Kyoga plains, the net economic benefits of wetlands were valued at $11,358, $10,388 and $10,948 per hectare per year, respectively (Kakuru et al. 2013).

Forestry: Forest accounting for biodiversity conservation services takes into account both stocks and flows of biodiversity from Uganda's forestry resources. For Uganda total, there were 1,259 species of trees and shrubs, 1,011 species of birds, 75 species of rodents (small mammals), 1,245 species of butterflies, 115 species of hawk moth (large moths) and 96 species of silk moths (Forest department 1996). The total annual contribution of forest biodiversity to the national economy was estimated at $154.8 million (NEMA 2012; Masiga et al. 2013).

The economic value of these biodiversity based on gross economic output attributable to biological resource use in the fisheries, forestry, tourism, agriculture and energy sectors was estimated at $546.6 million/ year and indirect value associated with ecosystem services and functions to be over $200 million annually, which for a least developed country like Uganda, cannot be underestimated.

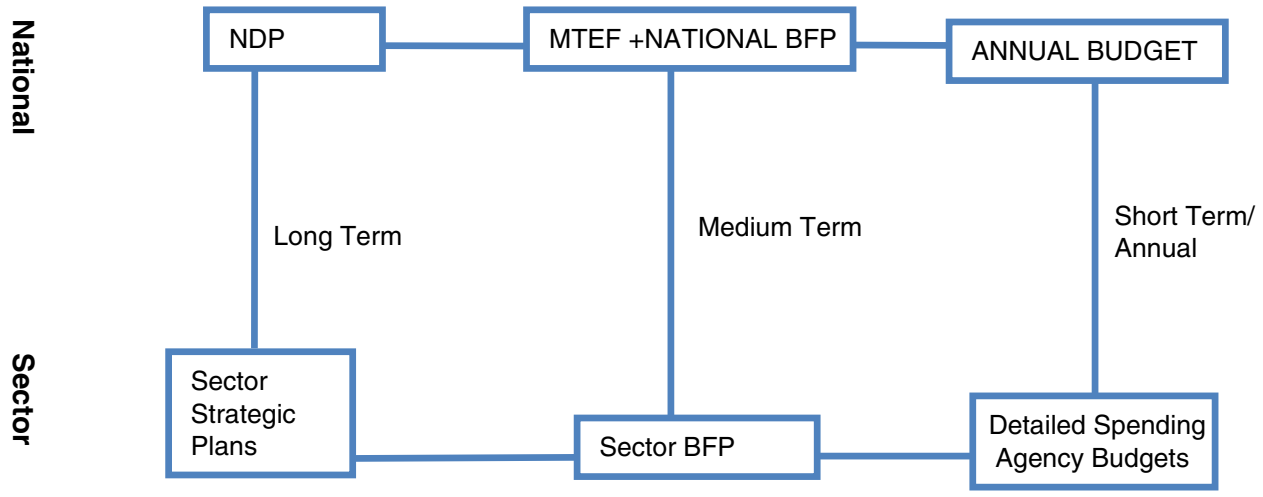
3. BUDGETING, EXPENDITURE REVIEW AND STATUS OF FINANCING

3.1 National budget cycle

Public institutions budget for biodiversity conservation as part of their obligations to implement the national development plan (NDP), Medium Term Expenditure Framework (MTEF) and annual work plans. The country has a three-fold national budget framework, medium-term and short-term or annual budgeting. The long-term budgeting frameworks cover the Vision 2040 and NDP which cover a 27 year and five year time period respectively. The five-year NDP is a more regular budgeting long-term framework.

The MTEF and/or national budget framework papers (BFPs) are the medium term budgets submitted by sectors to the Ministry of Finance Planning and Economic Development (MFPED). Similarly, agencies and ministries submit to MFPED detailed spending planned in annual budgets (Figure 2). Since the 2007/08 Financial Year, the government adopted and implements a budgeting structure based on vote functions. A vote function represents a set of services or outputs which a spending institution is responsible for (GoU 2010). The reform was augmented with implementation of output-based budgeting (OBB), a form of performance budgeting. Output based budgeting was introduced to switch focus from activity budgeting to output focus (GoU 2010).

Figure 2: Framework for linking policies and strategies to budgeting in Uganda

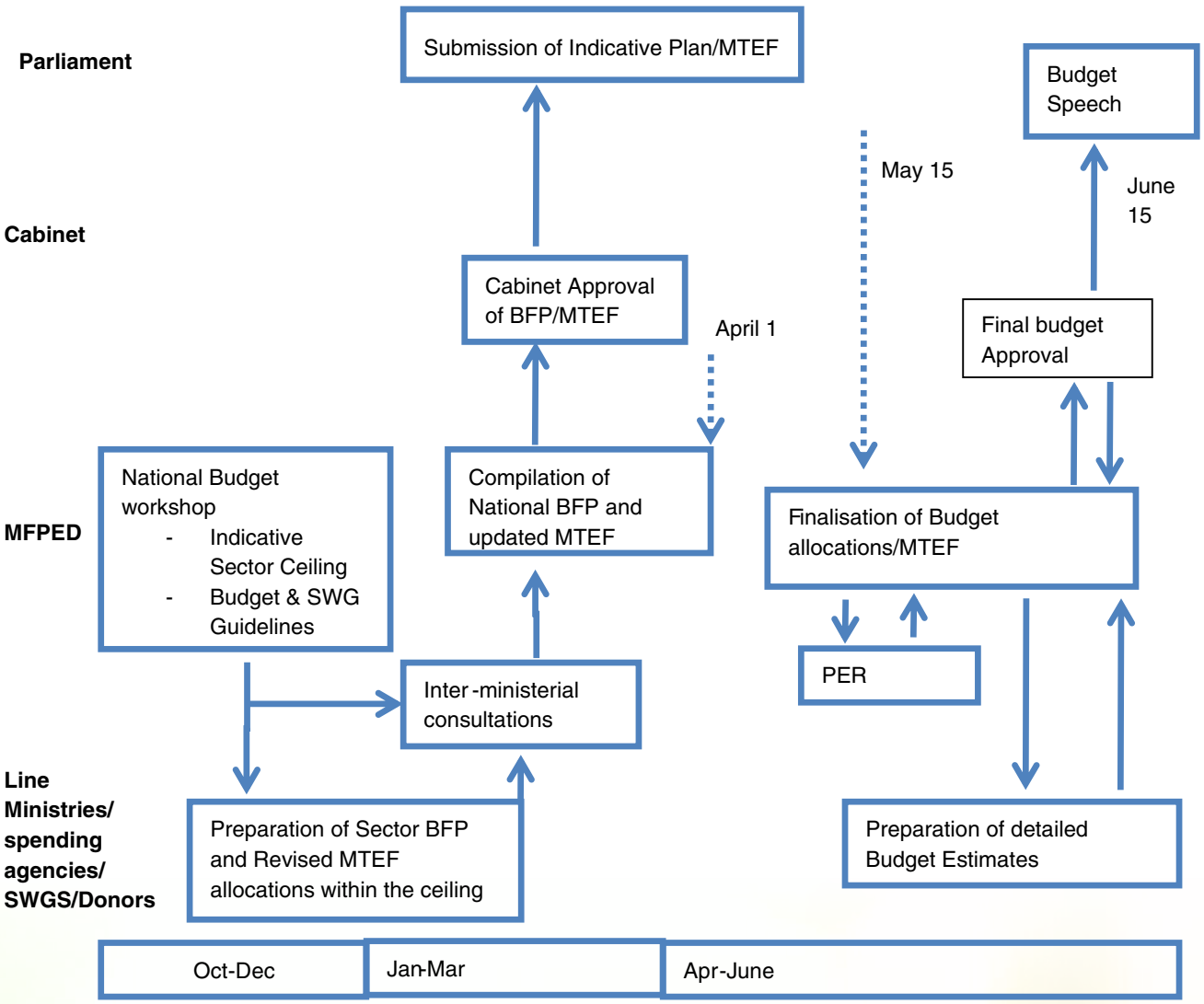


Source: Williamson, 2011

Whereas a performance based approach is used in budgeting for sectors and agencies. Budget execution is often based on a cash budgeting system. A cash budgeting system means budget limits evolve within the year budget releases primarily based upon the revenue collected rather than using cash flow profile associated with approved estimates. Whereas the approved budget is the authority, operationally, it may appear more as a guide than an authority. Consequently, multiple in year budget revisions are need and these may be different from the allocations stated in the annual budget. The expenditure is often based on the resource envelope. The resource envelope is equal to the available public revenue less expected mandatory payments such as external and domestic debt obligations (Williamson 2011).

The annual national budget cycle (Figure 3) runs from October of one year to June of the next year. The budgeting cycle starts with a national budget workshop in which indicative sector ceilings are revealed to different sectors as well as the budget and sector working group (SWG) guidelines. These workshops communicate government's plans for linking resources available with accomplishment of the medium term and long-term strategic frameworks through annual plans. In the second phase of the planning local governments, agencies and sectors develop BFP using OBB guidelines and these are adopted at both local government level, central government and the parliament. The annual budget allocations are done by MFPED together with sectors and consideration is made of public expenditure reviews submitted annual by sectors and MTEF, the final budget approved by the cabinet of government ministers is then submitted to parliament in June.

Figure 3: Summarised annual national budgeting cycle



Source: Williamson 2011

3.2 Expenditure review for biodiversity conservation investments

The expenditure review conducted for these guidelines was an iterative process that considered the proposed outputs, strategies, planned activities and status of implementation of the NBSAP and actual expenditure incurred at the different levels of biodiversity implementation. Uganda's NBSAPs shows that biodiversity conservation activities predominantly occur at ecosystem level. Therefore, the major functions occur in the management of mountains, forests, grasslands and savannah, wetlands, freshwater resources and agro-ecosystems.

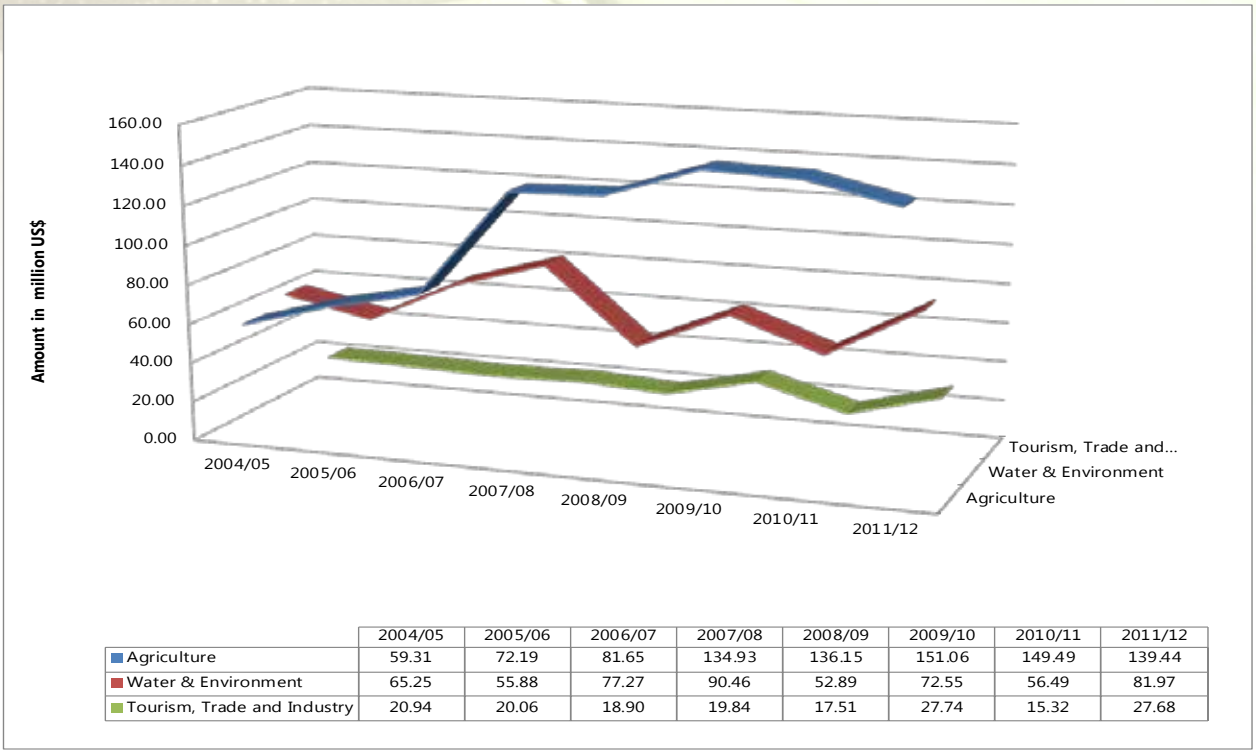
The highest concentration of this biodiversity is found in protected areas; that is 16.3% of the country's total land area. Therefore the initial focus of the expenditure review was on identifying the regulatory and institutional primal and secondary responsibility for managing biodiversity at ecosystem level. The second step is to identify the all available resources allocated to all biodiversity conservation related activities. These resources include off-budget and on-budget resources including government revenue, overseas development assistance (ODA), own revenues, donations or other grants (where possible specify source), social responsibility programmes etc.

3.2.1 Traditional financing mechanisms: central government and on-budget donor support

Traditional financing for biodiversity conservation revolves around the use of government expenditure and overseas development assistance (ODA) for biodiversity conservation. Early assessments conducted in the late 1990s (Emerton 1999) estimated that the government spent about US$3.27 million/year on public sector activities related to biodiversity conservation. Even though this amount of funds was reasonably high at the time, it was insufficient to address all of biodiversity conservation concerns.

Since the 2005/06 financial year, the budgetary allocation for biodiversity conservation related investments at the national level have increased. Investments in tourism and wildlife management, environment management and agriculture have increased from $20 to $27.7 million, $65 to $82 million and $59 to $139 million for tourism and wildlife, water and environment and agriculture respectively (MFPED 2012). The investments shown in Figure 4 show both government and donor support in the on-budget resources reported in BFPs, and MTEF.

Figure 4: Public biodiversity conservation-related investments, including donor support

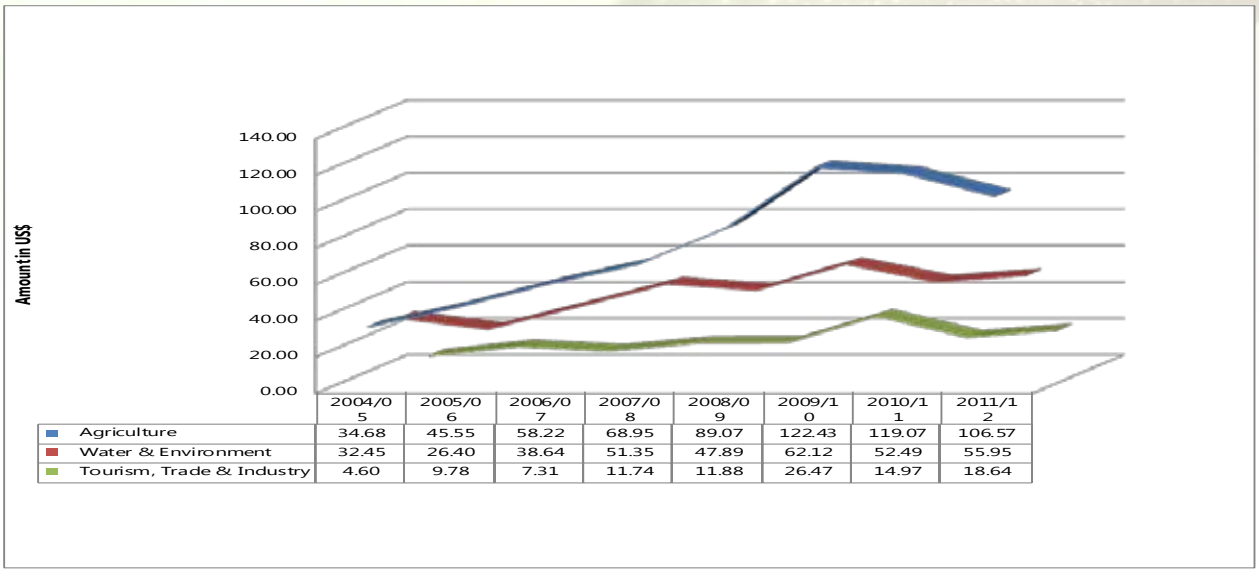


	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Agriculture	59.31	72.19	81.65	134.93	136.15	151.06	149.49	139.44
Water & Environment	65.25	55.88	77.27	90.46	52.89	72.55	56.49	81.97
Tourism, Trade and Industry	20.94	20.06	18.90	19.84	17.51	27.74	15.32	27.68

Source: MFPED 2014

Central government support for biodiversity conservation-related activities increased between 2005/6 to 2009/2010 for all the primary categories of agriculture, environment and tourism and wildlife management. Between 2009/10 and 2011/12 a reasonable decline can be observed in Figure 5. Whereas the decline for environment and tourism and wildlife ended after one financial year the decline for agriculture continued for the two years in the analysis. The 2009/2010 financial year expenditure was influenced with consolidating central government resources for elections held at the beginning of 2011. Therefore, it is possible that the decline represented re-allocation of some of the available resources. However, the continued decline for agriculture could have been linked to government's reduced confidence in the largest programme under the sector, the National Agricultural Advisory Services (NAADS).

Figure 5: Central government biodiversity conservation-related investment, excluding donor support

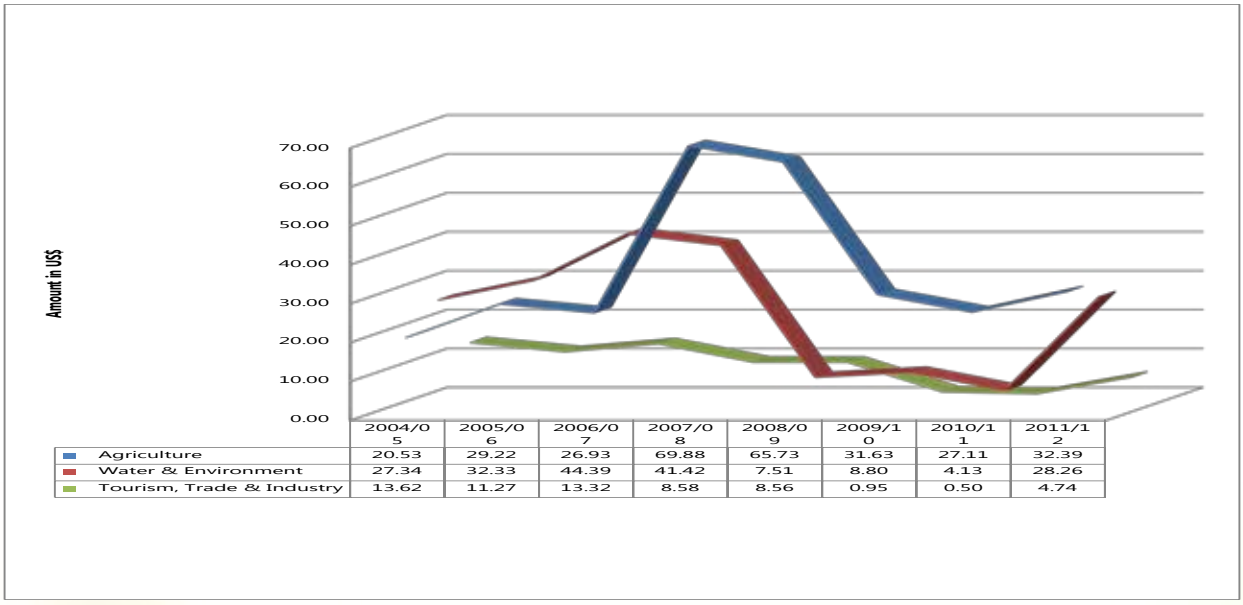


	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Agriculture	34.68	45.55	58.22	68.95	89.07	122.43	119.07	106.57
Water & Environment	32.45	26.40	38.64	51.35	47.89	62.12	52.49	55.95
Tourism, Trade & Industry	4.60	9.78	7.31	11.74	11.88	26.47	14.97	18.64

Source: adapted from MFPED 2014

A component of public sector investment to biodiversity conservation is through on-budget project support through donor projects. The budget support from donors is shown, in Figure 6, to have decreased from $11.2 to $4.7 million for tourism and wildlife, unstable with large fluctuations for the environment and natural resources sub-sector and to have increased at first and then stabilized for the agricultural sector investments.

Figure 6: Donor project support to biodiversity conservation-related investments



	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Agriculture	20.53	29.22	26.93	69.88	65.73	31.63	27.11	32.39
Water & Environment	27.34	32.33	44.39	41.42	7.51	8.80	4.13	28.26
Tourism, Trade & Industry	13.62	11.27	13.32	8.58	8.56	0.95	0.50	4.74

Source: adapted from MFPED 2014

Donor support: Between 2006 and 2010, Aid allocated to multi-sector cross cutting activities such as environmental management was only 4.2% (US$266.4 million) (Development Initiative 2012). This is an average of $53.4 million/ year to environment related sectors. However, it is clear that these calculations include allocations to the water sub-sector and that the allocations to biodiversity conservation activities were not clearly articulated.

Since 2006, overseas development assistance (ODA) has supported watershed management, tree planting, protected area management, tourism and climate change activities related to biodiversity conservation among others (see Annex IV).

Despite the higher allocation to the agricultural sector, for the core biodiversity conservation investments, a much higher investment is envisaged for the agricultural sector. For instance, the final Budget Call Circular provided an MTEF of $154 million to the agriculture sector in FY 2013/14; out of the National MTEF of $5.2 billion representing only 3% allocation to the Agriculture sector. The allocation is well short of the Maputo/ Comprehensive Africa Agriculture Development Program (CAADP) declaration of at least a 10% allocation of the National Budget to the Agriculture sector (MAAIF 2013).

The Ministry of Tourism, Wildlife and Antiquities (MoTWA) is assisted by; the Uganda Tourism Board (UTB), the Uganda Wildlife Authority (UWA), the Uganda Wildlife Education Centre (UWEC), the Uganda Wildlife Training Institute (UWTI), and the Hotel and Tourism Training Institute (HTTI). Public sector expenditure, according to the MTEF, on Tourism Trade and Industry Sector is projected at $20.48 about 0.4% of the national budget. With regards to funding, MTWH was only allocated 0.13% of the government's total FY 2011/12 budget, the government invested only US$4.5 million (UNDP 2012), even though this was expected to increase to only $6.66 million in 2013/14 (MFPED 2013). Despite the low investment from central government, national income from Tourism Wildlife and Antiquities increased from $564million in 2009 to $662million in 2010 reflecting a 14% increase (MFPED 2013).

3.2.2 Traditional financing mechanisms Conservation Trusts

Bwindi Mgahinga Conservation Trust (BMCT) was established in 1994 under the Uganda Trustees Act. The vision of BMCT is to conserve the biodiversity of Mgahinga Gorilla National Park (MGNP) and Bwindi Impenetrable National Park (BINP) in harmony with development needs of the surrounding communities.

Primary funding is from the BMCT endowment fund (26%) that was initially set up under the Global Environment Facility through the World Bank in 1994 and other donors who wish to support projects of their own interest that help in the promotion of BMCT Vision and Mission. Currently the donors include D. Swarovski and company (56%) fund the Sustainable Water Management for Nature and People project, CARE International (12%) funding the Batwa Livelihoods Project, the African Orphans Foundation funding some Batwa girl orphans' education and Greater Virunga Transboundary Executive Secretariat (GV-TES) funding an Agro-Forestry project, as well as the International Gorilla Conservation Programme (IGCP) – 03%.

BMCT is run as an endowment implemented through PES and integrated Development and Conservation Programmes. The trust funds programmes and projects that: ensure linkages exist between the project funded and conservation of biodiversity of Bwindi Mgahinga Conservation Area (BMCA), programmes that reduce social pressure on natural resources through a variety of mechanisms and support social and economic development programmes that have direct links to the protection of the biodiversity. The Bwindi Mgahinga Conservation Trust (MBCT), original $4.0 million Trust Funds invested offshore grew to $6.6 million by 2008. There has been direct financial support to communities (for income generating programs and activities) amounting to 1.8 billion shillings/year (approx. $720,000) to date from the Bwindi-Mgahinga Conservation Trust (BMCT) Endowment Fund. This money has funded programs that have improved livelihoods of communities living near the Bwindi and Mgahinga national parks.

Chimpanzee Sanctuary and Wildlife Conservation Trust (CSWCT) promotes the understanding, appreciation, and conservation of the chimpanzees, their habitats in particular, and wildlife in general. CSWCT was established as a combined national and international initiative and a globally recognized collaborative conservation effort, geared towards developing and implementing a long-term strategy for conservation of chimpanzees and their habitat, with the immediate purpose of establishing a chimpanzee sanctuary on Ngamba Island in Lake Victoria, and such other places in Uganda as the trustees may acquire. The annual expenses for biodiversity conservation activities have increased from about $435,000 in 2010 to $730,000 and $710,000 in 2011 and 2012, respectively.

National Conservation Funds[1]

Environment Fund: Section 88 of the National Environment Act (NEA) Cap 153 establishes the Fund to be administered by the NEMA Board and accordingly any decisions regarding expenditures from the Fund are taken by the Board. The NEF has already been established by an Act of Parliament for purposes of defraying the expenditures of NEMA and the Act specifies the sources of the funds and its administration by the Board. The sources of the fund shall consist of (a) disbursements from the Government; (b) all fees charged under this Act; (c) any fees prescribed for any service offered by the authority; (d) any fines collected as a result of the breach of the provisions of this Act or any statutory instrument made under this Act; (e) gifts, donations and other voluntary contributions to the fund made from any source.

Section 90 of the NEA Cap 153 also stated that the board shall perform its functions in accordance with sound financial principles and shall ensure, as far as possible, that its revenue is sufficient to meet expenditure properly charged to revenue. The board may invest money from the fund in conformity with good commercial practice. The environment Fund is estimate stand at about UGX 2.5 billion with annual inflows of about UGX 1 billion or $400,000. The performance of the environment fund is limited by inability to access revenue generated from the environment tax on motor vehicles. This revenue is collected by Uganda Revenue Authority and sent to the National Treasury Consolidated Fund.

Tree Fund: Section 40 of the National Forestry and Tree Planting Act establishes the Forest Fund to promote tree planting and growing at local and national level and to support tree planting and growing efforts of non-commercial nature which are of benefit to the public. The Tree Fund received one billion Uganda shillings per year, which is considered very little to support the planting of forests in the Country. The Natural Resources Committee of Parliament while reviewing the sector's ministerial policy statement 2013/14 recommended that government increases the funding to the Tree Fund to enable NFA distribute seedlings to communities for tree planting. Annual contribution from central government to the tree fund is UGX 1 billion equivalent to about $400,000/year (Parliament of Uganda 2012).

Off-budget grants: The ENR-Sector performance report (MWE 2012) reported that off budget resources available to environment and natural resources civil society organisations (ENR CSOs) was UGX6.66 billion or $2.92 million in 2009/10; UGX9.21 billion or $3.43 in 2010/11; UGX7.479 billion in 2011/12, about $2.8 million, and UGX 15.5 billion in 2012/2013, approximately $6.3 million. Prior to 2009/10, off-budget resources for the ENR sub-sector were unknown (MWE 2009; 2010; 2011; 2012; 2013).

Corporate Social Responsibility (CSR): NGOs and government agencies regularly get corporate social responsibility from companies such as mobile phone companies - MTN Uganda and Airtel, Banks such as Standard Chartered, Standard Bank Uganda and Barclays Bank for corporate social responsibility aimed at biodiversity conservation related activities.

1 Conservation funds could also be seen as innovative financing mechanisms, under Environmental Fiscal Reforms

However, there are no current mechanisms for pooling all this information together and isolating biodiversity conservation activities from other activities especially welfare activities undertaken as CSR. Implementation of financing guidelines is an opportunity to appropriately establish and allocate available funds.

3.3 Innovative financing mechanisms

In Uganda there has been an effort to patronize the six strategic objectives proposed Goal 4 of the CBD Strategy for Resource Mobilization (OECD 2013). However, the status of operation is considered generally inadequate (Speck 2010). The six strategic objectives for resource mobilisation are; schemes for payments for ecosystem services, biodiversity offset mechanisms, environmental fiscal reforms, markets for green products, international development finance and climate change finance for biodiversity conservation.

Payments for ecosystem services

An updated inventory on Uganda's payments for ecosystem services (PES) projects highlighted 18 running projects and over 20 promising projects (Ruhweza et al. 2008). Nearly all the PES projects were for carbon emissions reductions and biodiversity conservation. Uganda's experience with these types of PES projects dates back to the early 1990s. However, the foothold for PES schemes is still limited to small projects. In recent times there has been an effort to scale-up PES options for biodiversity conservation by "developing an experimental methodology for testing the effectiveness of PES to enhance biodiversity conservation in productive landscapes in Uganda."

The initiative stakeholders include the Government of Uganda through the National Environment Management Authority (NEMA) and the Global Environment Facility (GEF) through the United Nations Environment Program (UNEP). The Chimpanzee Sanctuary & Wildlife Conservation Trust (CSWCT) is the Project Management Unit (PMU) and other project partners including (Nature Harness Initiative (NAHI), Hydromax, International Institute for Environment and Development (IIED), Katoomba Group, Innovations for Poverty Action (IPA) and international scientists from Stanford University and the World Bank.

Current estimates suggest that PES investments outside the other agencies highlighted above, but including CSOs such as Environment conservation trust (ECOTRUST), Nature Harness Initiatives, Coca cola, Uganda Breweries Ltd, and private sector initiatives estimate annual flows at about $0.5 million/ year based on key informant discussions (Kaggwa, R. Environment Economist NEMA and Nantongo, P. Executive Director Ecotrust pers. Comm. 2014).

New PES initiatives with strong potential for success are the on-going development of a watershed payments scheme in the Rwenzori Mountain National Park landscape for the R. Nyamwamba and R. Mubuku sub-catchments. The development is led by WWF support the District Local Government of Kasese with some linkages with Ntoroko District Local Government. In the Mt. Elgon Landscape, an Adaptation Fund was set-up through the Ecosystem Based Adaptation interventions implemented by UNDP with funding from the German Federal Ministry of Environment (BMUB). The adaptation fund runs a revolving fund mechanism that rewards stewardship activities of soil and water conservation and catchment management. The use of PES is likely to have strong foothold in catchment and watershed management.

Biodiversity offset mechanisms

In July 2007, the Government of Uganda entered into an indemnity agreement with the International Development Association (IDA) of the World Bank to support a portion of the financing of the Bujagali Hydropower Project by the IDA/World Bank. Agreement among other things, the Government of Uganda designated Kalagala Falls as a biodiversity offset, including the preservation of the Mabira central forest reserve and the Nile Bank central forest reserve (World Bank 2007). The biodiversity offset set a precedent for international multilateral financing and support towards biodiversity conservation. Therefore the biodiversity offset was also designed as part of international development finance.

Currently, the MWE is implementing the preliminary components of the Kalagala Offset Sustainable Management Plan (KSMP) in the districts of Jinja, Kayunga and Buikwe. These include sensitisation of communities on best practices of conserving river banks and carried out a number of field visits. The KSMP shows that principle funding for the scheme is supposed to come from the Government of Uganda through the ministry and District Local Governments. Other support may be sourced from Development Partners and Global Biodiversity conservation financing mechanisms.

The comprehensive Financing Strategy to be developed during the course of implementation of KSMP is yet to be developed. Other proposed sources of funding are: (a) revenues generated from Payment for Environment Services by Uganda Electricity Transmission Company Limited (UETCL); (b) private Sector: through their investments into Ecotourism investments and Corporate Social Responsibility and other resources; (c) Global Environment/biodiversity conservation mechanisms including Clean Development Mechanism (CDM), Reduced Emissions from Deforestation and forest Degradation (REDD) and other carbon funds; and (d) Bujagali Energy Limited (BEL) on aspects of Ecotourism, Environment Management, and Community development Programme (Burnside International et al. 2010).

Environmental fiscal reforms

Fiscal policy has also been used in the management of the environment. The environmental levy is charged used vehicles, environmental tax on polythene bags and plastic containers and goods while exemptions from import duty on garbage trucks. Current taxes in support of sustainable environmental management are: a 10% environmental levy on used motor vehicle spare parts; an excise duty of 120% on polythene and plastic bags of more than 30 microns; and the environmental levy on used cars that are 8 years and above to 20%. The enabling legal and policy framework for the implementation of environmental fiscal reform (EFR), National Environment Act Cap 153, allows NEMA, in consultation with the Ministry of Finance, Planning and Economic Development, to recommend EFR measures.

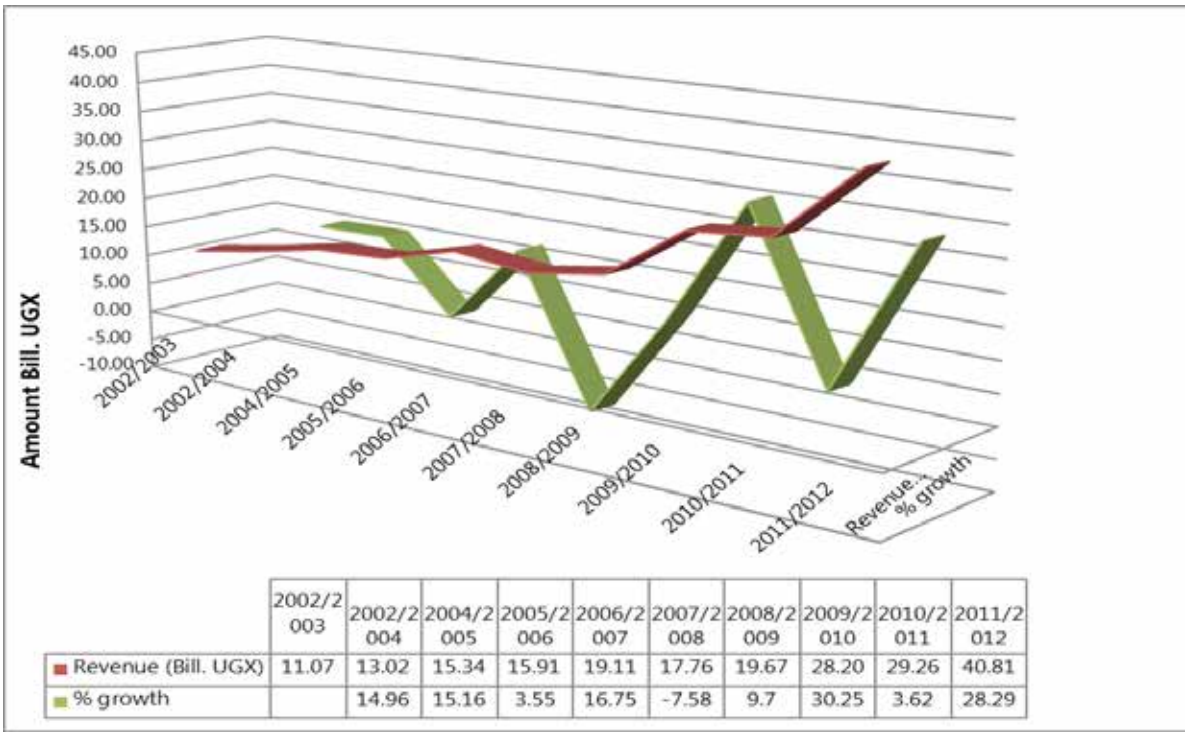
Another set of EFR measures are for Sustainable Fisheries User Levy. These levies are collected from the fish landing site by Beach Management Units, District Fisheries Staff through to the national level by the Directorate of Fisheries Resources (DFR) and Uganda Revenue Authority (URA). The levies include fishing vessel license, fishing permits, fish monger license, specific fish license, artisanal fish processing license, fish movement permits, fish health certificates, industrial fish processing license. By 2009, approximately $2.46 million was generated annually from the fisheries user levy (Lin-Heng et al. 2009).

National Forestry Authority: NFA's budget excluding taxes and arrears has generally remained unchanged. However the government has taken over the wage bill of NFA allocating UGX 3.6 billion this financial year although the nonwage budget has been cut. NFA has set a target of UGX 12.199 billion/year, or approximately $5 million/year for NTR. This should boost its operations during the financial year

Uganda Wildlife Authority: UWA is mandated to ensure sustainable management of wildlife resources and supervise activities related to wildlife protected area management in Uganda. The organization is responsible for the management of 10 National Parks, 12 Wildlife Reserves and provides guidance for the management of 5 Community Wildlife Areas and 13 Wildlife Sanctuaries. In addition UWA is responsible for the management of wildlife outside Protected Areas. Own revenues received by Uganda Wildlife Authority from recreational Services include revenues; including Chimpanzee viewing, Mt Gorilla tracking, Hiking and Biking, Picnicking, Bat viewing, Nature walks, Lodging and accommodation, aggregated nature walks, Birding, Butterfly viewing, Chimpanzee tracking and Primate walks.

Since 2004/05, non-tax revenues for UWA have grown at an average rate of 12% and the growth has been consistent with the exception of revenue dips in 2005/06, 2007/08 and 2010/11 (Figure 7). The causes of revenue declines have varied from insecurity to structural changes or investments at the highest income earning national parks, Bwindi, Queen Elizabeth and Murchison Falls National Parks. The high NTR has enabled UWA to support conservation of biodiversity in protected areas even though government support has often not exceeded 5% (MFPED 2010).

Figure 7: Non-tax revenues generated by Uganda Wildlife Authority and percentage rate of growth

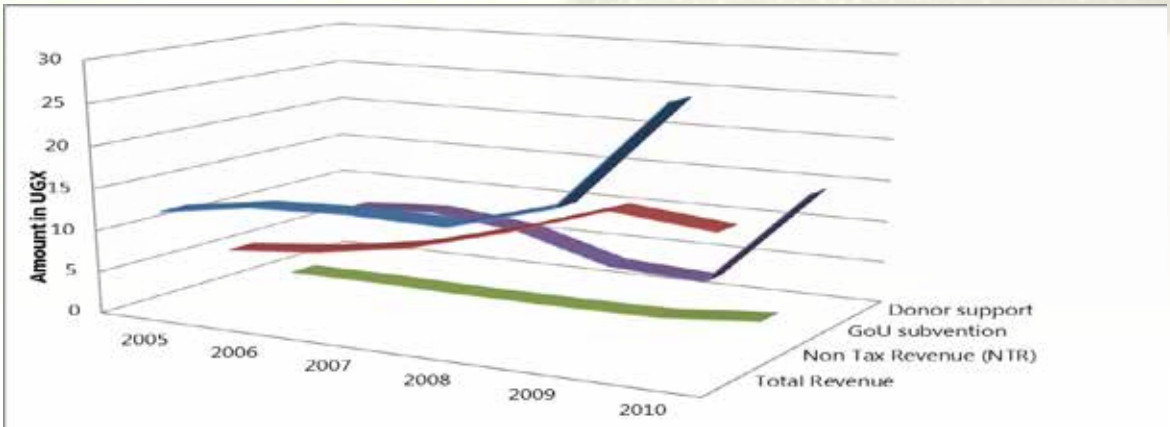


	2002/2003	2002/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Revenue (Bill. UGX)	11.07	13.02	15.34	15.91	19.11	17.76	19.67	28.20	29.26	40.81
% growth		14.96	15.16	3.55	16.75	-7.58	9.7	30.25	3.62	28.29

Source: adapted from UWA 2014

National Forestry Authority: Between 2005 and 2010, government subventions to the NFA ranged between 0.2 and 1.0% of the revenues generated by the agency (Figure 8). The most consistent source of revenue was non-tax revenue (NTR), which continually to increase from 44% in 2005 to a peak of 87% in 2009 before declining to just under 50% in 2010 as donor support increased. Donor support for the agency was as high as 55% in 2005 decline up to 12% in 2009 before rising again to 48% in 2010 (MWE 2010; 2012). The changes in forestry governance at the national level could have played a strong part in engagement with development partners.

Figure 8: NFA generated revenues including donor support, NTR and government subvention



	2005	2006	2007	2008	2009	2010
Total Revenue	12.26	13.91	14.3	14.08	17.28	29.32
Non Tax Revenue (NTR)	5.42	6.44	8.26	11.34	15.04	13.89
GoU subvention	0.164	0.194	0.024	0.042	0.176	1.2
Donor support	6.68	7.28	6.01	2.7	2.07	14.03

Source: adapted from MWE 2010; 2012

Local revenues: The principal sources of revenue collected at local government level are local service tax, local government (hotel) tax, property taxes, user fees and others. An error of commission leads to poor attribution of specific sources of revenues. Analyses conducted by the Local Government Finance Commission (MoLG 2011) showed that local revenue collected by local governments increased from Ushs 118.7 billion/year to Ushs 142.8 billion/year. Although, this was a remarkable improvement of 20% in one financial year, it falls way short of the target Ushs 334.6 billion/year that can be collected. For natural resources depended Districts like Nakasongola District, more than three-quarters of the local revenue is generated from licenses and fees on environment and natural resources such as charcoal, fisheries, timber and sand among others.

Markets for green products: In 2012/13 financial year exports contributed 13.4% of the country's GDP. Total export earnings, between April 2011 and March 2012, were estimated at US$2,602.5 million (MFPED 2013). Coffee exports were highest at US$466.9 million. Formal non-coffee export earnings were estimated at US$1,768.8 million, and they include electricity, cotton, tea, fish, hides and skins, beans, flowers, oil re-exports and cobalt as well as gold, tobacco, simsim and maize. Whereas biodiversity contributes to the status of green exports, deliberate biodiversity conservation efforts associated with the production systems are limited. In the mid-1990s, several non-traditional marketing channels emerged for coffee, including organic, fair trade and shade-grown. All were aimed at improving the stability of incomes received by farmers, even though only 0.21 per cent of Uganda's coffee was exported as organic and less that 0.5% as sustainable coffee (including fair trade, organic and shade coffee). The premiums earned by farmers ranged between 22 and 35% (Masiga and Ruhweza 2007).

There has been considerable progress in organic agricultural production in over, over the last decade. Currently 226,954 ha of farmland in Uganda are under certified organic agriculture (NOGAMU 2010). Ugandan organic export sub-sector registered a double-digit growth in exports from $3.7 million in 2003/4 to $36.9 million in 2009/10 (Namuwoza and Tushemerirwe 2011). Organic farming and drying of pineapple is well worth the extra effort because of the income benefits for the household and savings for further investment. Organic farming facilitates more social cohesion among farmer groups and also in the village.

Hindrances to the organic sector are the unavailability of cheap substitute for coffee husk for fertilisation and excess labour required for clearing weeds.

Fruit drying is a key to economic empowerment of women and a strategy for utilising cheap fruits during harvesting season in this region. The major constraint for increasing the production of organic dried fruits is at the processing level, and the limited capacity for investments in drying facilities. The greatest bottleneck for organic producers lies in getting a consistent and reliable buyer for organic fruits with a premium price. Release of these constraints is very likely to significantly improve both the quality and quantity of organic fruits from Uganda. Furthermore, a premium price and opening of outlets for organic products in the local and the regional markets could potentially increase the production of organic fruits.

International development finance: International multilateral and bilateral support has been described in the discussions on traditional finance. Whereas more innovations in international finance targeting poverty and nature for debt swaps, the magnitude of develop finance and structure of public finance governance in Uganda has ensured that such finance is either managed by central government through on-budget support as part of the MTEF and/or as donor support off budget generally to CSO, which has also been described above as part of grants in traditional finance.

Climate change finance for biodiversity conservation : There is limited climate change finance for biodiversity conservation in Uganda although a number of initiatives integrate biodiversity conservation activities. The Trees for Global Benefits Programme under the Environmental Conservation Trust (ECOTRUST) manages a Plan Vivo standard for carbon farmers in western and eastern Uganda. The farmers undertake afforestation and reforestation activities aimed at restoring or replenishing indigenous trees within the community in turn farmers earn payments on their verified emissions reductions. Similar voluntary carbon projects with elements of biodiversity conservation are managed by the Uganda Wildlife Authority (UWA) with Forests Absorbing Carbon dioxide Emissions (FACE) Foundation in Mt. Elgon and Kibale National Parks and the Nile Basin Reforestation CDM between the National Forestry Authority (UWA) and the World Bank Bio Carbon Fund.

3.4 Impacts of financing for biodiversity conservation

The impacts of biodiversity finance have been described in Table 5 below. The table shows categories of biodiversity finance, examples of sectors, programmes and/or projects that have been financed and the good and negative impacts experienced as result of the financing mechanisms. A summary of positive impacts of previous and current financing for biodiversity conservation include:

(i) Building of institutional capacity for biodiversity conservation at national level

(ii) Growth sustainable revenue generation in key institutional such as UWA and NFA, and strong potential at local government level and NEMA to fund biodiversity conservation based institutional capacity and regulatory reforms

(iii) Strong effort to conserve at least 18% land cover under protected areas

(iv) Sustainable utilization of most central forest reserves etc.

(v) Community benefits and collaborative forestry management that benefit livelihoods and innovative niche income streams for sustainable agriculture

Negative impacts of previous and current financing for biodiversity conservation include:

(i) Pressure to generate revenue streams and maintain livelihoods increasing pressure on forestry resources and biodiversity on agricultural lands. Much of this has been forestry reserve owners

(ii) Competitive government policies that are not harmonized create subsidies for example rice production at the expense of wetlands and forest areas whereas biodiversity projects encourage increased productivity. Trade-off for degraded/lost biodiversity especially in the agricultural sector is high.

(iii) Sustainability of financing from donors, where strong capacity is developed e.g. local environment committees; but financing is diverted to consolidated funds and other socio-economic programme, health, education.

(iv) Even where financing has been introduced for example mitigation actions for project developers, institutional mismatch of power means resources are not available to the appropriately trained environmental staff and inadequate mitigation effort occurs.

Table 4: Case studies of positive and negative impacts of financing for biodiversity conservation

Types of finance	Examples	Positive impacts	Negative impacts
Traditional			
Central government	On budget support to environment agencies under MWE	Biodiversity conservation coordination has benefited considerably from wage and non-wage support to agencies such as NEMA. Whereas additional project support from GEF has gone towards developing NBSAP reports the day to day conservation activities at national and local government level are generally obtained from central government transfers.	The resource envelope remains small therefore a small human resource is engaged in biodiversity conservation. As a result considerable biodiversity loss occurs from wetland, forest and mountain degradation. A lot of government support has focused on productivity enhancement which forms a negative subsidy on biodiversity. For example enhancement of rice production for paddy and upland rice while one leads to reclamation of wetlands, the other has encouraged deforestation as farmers seek newer more fertile lands for rice production. A good solution would be policy harmonization, but environment management may take second place to food and livelihoods security.
Donor support	Donor support to research agencies e.g. Protected Areas Management and Sustainable Use (PAMSU) project, Environmental Management and Capacity Building (EMCBP) Project	The infrastructure support to UWA and NEMA for the projects as well as capacity building built a strong foundation of human resource on environment management at both national and sub-national level. In the case of PAMSU, the infrastructure and human resource development ensured that UWA now has capacity to generate over 65% of the revenue required to sustain the organization, indeed if current revenue growth is maintained the organization will be self-sustaining by 2018. For NEMA, capacity building led to development of a strong environment regulatory framework that current supports wetlands management, pollution in water resources and a strong environmental impact back borne.	Whereas a strong foundation was built for environmental management and coordination, there was an insufficient effort in creating a platform for sustainable resource generation. As a result a lot of the institutional structures for environment management and coordination have been lost, particularly at the sub-national level. In the case of UWA infrastructure and human resource capacity has built a strong base for income generation. However, there could be a case of reduced responsibility from central government and therefore potential for conflict over land use for protected areas as well as support to communities contributing to protected areas management.
Conservation trusts	Bwindi Mgahinga Conservation Trust (BMCT)	BMCT has demonstrated the capacity of using an endowment to benefit from international financial markets as well as growing the resources available for biodiversity conservation activities.	A limited focus of the trust has reduced its visibility and could impact on the resources that a raised in the long-term. The need for conservation of Mt. Gorillas in Bwindi and Mgahinga national parks has extended beyond the country's borders and has a large international platform.

Types of finance	Examples	Positive impacts	Negative impacts
Innovative			
PES	Chimpanzee sanctuary;	Rescuing of endangered chimpanzees from war ravaged areas, creating a home and using ecotourism as well as grants and PES funds to manage the sanctuary has been an innovative mechanisms that raise the profile of sanctuaries, conservation and ecotourism, through combining non-use values and use values and creating a wider segment of stakeholders both nationally and internationally.	Limited focus of the concept has meant that other endangered species are all managed by UWA on its own. The success of one PES has precluded the development of a regulatory framework on biodiversity conservation for other endangered species, "because the endangered chimpanzees have been dealt with".
Offsets	Kalagala offset	The potential to contribute to the conservation of an important central forest reserve and livelihoods dependent on Mabira Central Forest Reserve (CFR). As a pioneer biodiversity offset project in the country it also provides a good chance to learn where else private sector and other partners could be involved in biodiversity offsets. Indeed, UWA and NFA have acknowledged offsets as one of the EIA options for developers	The slow pace of implementation of the sustainable management plan of the offset has reduced possibility of success and securing possible financing from government, developers and multilateral funding agencies. Offsets are now seen by developers as complicated and alternatives are considered instead of biodiversity offsets.
EFR (NTR)	Uganda Wildlife Authority;	Uganda Wildlife authority has succeeded in growing its non-tax revenue by an average of 12% per annum for more than 12 years. In so doing it has reduced its dependence on central government and donor support for its recurrent and capital development budgets.	For UWA revenues increase also have recurrent and capital costs. By 2009/2010, revenues covered 80% of recurrent expenditures and 70% of the total budget. With donor support covering 28% and government subvention. But as UWA spends more on its recurrent and capital budgets, less revenue if left for community benefit sharing from biodiversity conservation, in the long-term this could reduce community participation in conservation. Improve direct community benefits through ecotourism, use PES support from donors & public finance to support community conservation.
	National Forestry Authority and	The NFA generated revenues that cover between 40 to 60% of its financial requirements. The revenues are through sale of forest products and commercial forestry in plantations.	More than 70% of the forested area in the country is on private land. The pressure for forest conservation is high on private land but so is the pressure for commercial forestry for wood fuel and construction. Private sector has received encouragement from the commercial success of UWA to also exploit the commercial aspects of forestry on private land and with limited regulation of forests on private land the country lost more than 50% of the forest cover and the biodiversity in it between 1990 and 2005. Although other pressures such as agriculture contributed to the loss.

Types of finance	Examples	Positive impacts	Negative impacts
	NEMA and economic instruments, and local governments	NEMA has implemented fiscal reforms for wetland management, pollution control and environment taxes on old and polluting motor vehicles. These forms of financing have boosted revenues for NEMA and government. Similarly, local governments generate local revenue from activities of forestry products trade, fisheries and other aspects of biodiversity.	For NEMA, whereas an Environment Fund exists and a number of instruments to provide financing, the largest of these instruments, the environment fund is controlled at the central government level and all proceeds go to the consolidated fund of the government treasury. Similarly, data on local government revenues are poorly collated and recorded therefore a commensurate allocation for biodiversity conservation is rarely made. In both cases a poor precedent has been set, which will encourage extraction with limited effort to conserve and build resilience of ecosystems. If this persists, as is the case observed at local government level, the ecosystem services are degraded and ecosystem resilience is lost.
Markets for green products	Organic agriculture exports	Organic agriculture in Uganda has been growing and Uganda is the leading organic exporter in Sub-Saharan Africa. Incomes are generated for low income households and ecosystems are sustainably managed.	The improper balance in presentation of the prospects of organic agriculture have limited the prospects a policy and regulatory framework. Organic agriculture has to contend with the need for food security, high incomes and production in degraded areas as well as the commercial agriculture industry. The need to present a viable perspective of organic agriculture versus alternatives such as conventional and conservation agriculture.
Climate change	Carbon finance through CDM afforestation and voluntary projects	Greenhouse gas mitigation actions through the clean development mechanism and voluntary carbon projects such as Trees for Global Benefits Plan Vivo project has provided an opportunity to conservation natural forests in Albertine rift for over 10 years and in now in eastern Uganda. Innovations for financing are emerging that allow for bundling of bundling of biodiversity conservation and carbon sequestration so that a market for biodiversity conservation services is acknowledged in agro-forestry and reforestation activities in agricultural landscapes.	The limited funding current available and strict management arrangements mean that whereas farmers understand the benefits of the carbon project only a small number participate. For example the Trees for Global Benefits Programme was unable to recruit more than 3000 famers in the Albertine rift. An emerging solution is bundling PES and also merging adaptation and mitigation actions through creation of a wider value chain of benefits to attract land owners to engage in long-term projects for carbon and biodiversity conservation, among others.

3.5 Gaps in biodiversity conservation financing

The financing gap for biodiversity conservation related investments in Uganda is estimated at $455 million/year; i.e. current financing is $216 million while $671 million is required. The largest financing gaps is in the agriculture sector at $366 million/year, in line with the country's commitments under CAADP, while other gaps cover the other primary sub-sectors of environment and natural resources, and tourism, wildlife and antiquities as well as research (Table 7).

The actual biodiversity investment out of the biodiversity conservation related (or Environment and Natural Resources) investments was found to approximate 30% of the entire budget. The actual financing gap for biodiversity investments annual was likely to be about $136.5. These funds would go to biodiversity management coordination, awareness creation, investments into protected areas management and biodiversity outside protected areas, enhance sustainable use, access and benefit sharing, biotechnology development and resource mobilization.

Table 5: Estimated financing gap for biodiversity conservation-related investments ($/year)

Sectors/ sub-sectors	Agencies	Current financing Amount $/year	Gap in financing	Desired financing Amount $/year
Environment and Natural Resources	NEMA	Current on budget and off-budget resources have been estimated at $29.15 million/ year (MWE 2013).	The financing gap is $36.15 million/year	The first ever ENR Sector Investment Plan (ENR SIP) was done in 2007 for the period 2007/08 to 2017–18. The total budget for the 10-year period was $653 million. This is equivalent to $ 65.3 million (MWE 2008)
	NFA			
	CCU			
	Departments of Environmental Support Services (DESS)			
	FSSD			
	Wetlands Department			
	Directorate of Meteorology (DOM)			
Agricultural Sector	The Ministry and Directorates of crop resources, animal resources	Agriculture sector - the final Budget Call Circular provided an MTEF of $154 million to the agriculture sector in FY 2013/14; Including investment in research and development under NARO	Financing gap for the sector is $366 million/year	Out of the National MTEF of $5.2 billion representing only 3% allocation to the Agriculture sector. At least $520 million/ year is the sustainable investment proposed for the sector
	Plan For Modernisation of Agriculture Secretariat (PMA)			
	Control of Trypanosomiasis in Uganda (COCTU)			
	Dairy Development Authority (DDA)			
	National Genetic Resource Centre and Databank (NAGRC&DB)			
	Cotton Development Organisation (CDO)			
	Uganda Coffee Development Authority (UCDA)			
	National Agricultural Research Organisation (NARO)			
	National Agricultural Advisory Services (NAADS)			
Tourism, Wildlife and Antiquities	Tourism Services	Approximately $32.68 million with about $ 20.4 million for UWA.	Financing gap is about is $52.32 million/ year	Currently the tourism, wildlife and antiquities sub-sector contribute about $1.7 billion as national income. It has been that a re-investment of at least 5% would support sustainable ecosystem management i.e. $85 million/year
	Uganda Wildlife Authority			
	Uganda Wildlife Education Centre			
	Uganda Tourism Board			
	Ngamba Island Chimpanzee sanctuary			
	Uganda Wildlife Training Institute			
	Hotel & Tourism Training Institute			
Others	Uganda National Council of Science and Technology and Universities	Current investment estimated as $0.04 million, excluding NARO	The financing gap is about $0.36 million/ year	Approx. $0.4 million based on Science Technology and Information Report (UNCST 2012)
Total		215.77	454.93	670.70

Source: adapted from MWE 2012; 2013; MAAIF 2013; UNCST 2012; UWA 2014; World Bank 2012a (CEA); MTWA 2013; World Bank 2012b (tourism)

4. CRITERIA AND PROSPECTS FOR BIODIVERSITY FINANCING

This section evaluates the prospects and critical issues for the potential mechanisms for financing biodiversity conservation in Uganda. Traditional and innovative financing mechanisms are disaggregated and ranked individually based on national and international trends and emerging knowledge. The section shows that the environmental fiscal reforms offer the most promise, while biodiversity offsets may not be patronized by many development agents because they are focused on residual significant adverse impacts that cannot be avoided, minimised and/or rehabilitated or restored. Government and donor financing mechanisms are consistent, inflexible but also the main governance framework for resource mobilisation and utilisation. Therefore, government and donor financing will continue to be foundation mechanism for Uganda's biodiversity finance strategy.

4.1 Criteria for evaluation of financing mechanisms-

The criteria below are the foundations to be used by Ugandan stakeholders in selecting suitable financing instruments. A successful financing mechanism for biodiversity conservation has to aggregate several criteria but not rely on a single factor, as described below (Bökenkamp et al. 2008)

Quantity of resources mobilized: Since the objective is mobilizing resources, the quantity of resources mobilized is important; however, resources cannot be mobilized at the expense of environmental effectiveness. Therefore, if an environmental tax is charged for environment and natural resource use that degrades an ecosystem, it must be designed to create an adequate disincentive to change behaviour. This is because when degradation stops then the instrument is not needed, and when it resumes the instrument is re-instated.

Environmental Effectiveness: It is imperative that the instrument is able to achieve the environmental objective within the specified time span and that the degree of certainty can be expected. If for example, there is a risk of degradation of a forest reserve due to effects of leakage or political instability, a biodiversity offset can be created alongside a long-term infrastructure development to minimize the possibilities of such a loss occurring or create alternatives in case a risk occurs.

Cost Effectiveness: When stakeholders have an option to choose between different instruments and mechanisms they will have to consider the cost of implementing some measures as alternatives and the expected rewards. A cost effective options is almost always preferable

Flexibility: in terms of policy implementation is imperative that the regulator or implementer has the flexibility to make adjustments due to changes in technology, market conditions and state of the ecosystem.

Dynamic Efficiency: The element of dynamic efficiency is important in transitions over a long period of time. An institution needs to establish whether an instrument fits within future trends or changes in societal needs. For example, cleaner and economically more efficient technologies are an emerging need, which would improve the prospects of an instrument.

Equity: The instruments selected have to provide a basis for a fair weighting of responsibilities and/or obligations among the stakeholders involved. Whether the benefits are representative of the contributions made and where an effort has been made to cater for the stakeholders who lose out.

Predictability: An instrument should offer option for predicting future outcome. For example, fishing licenses should lead to optimal fishing effort on the lake and sustainable fish stocks. If the instrument offers limited chances for prediction then it may be less suited for a sector or an ecosystem.

Acceptability: An instrument must be understandable to the public, acceptable to the industry, and politically saleable. Therefore in addition to regulatory reviews, an assessment of public and political perception is needed and appropriate compromised made for the success of financing mechanisms.

Governance: The identified instrument must provide for proper use and accountability for the resources mobilized. This will encourage more stakeholders to be compliant. Governance specifically covers aspects of ease of introduction of the instrument, i.e. extent to which the policy instrument is relatively easy to implement, and does not require significant changes, and ease of monitoring and enforcement; i.e. extent to which reliable compliance, monitoring and enforcement can be implemented at an acceptable cost.

4.2 Scoring based on evaluation criteria for finance mechanisms-

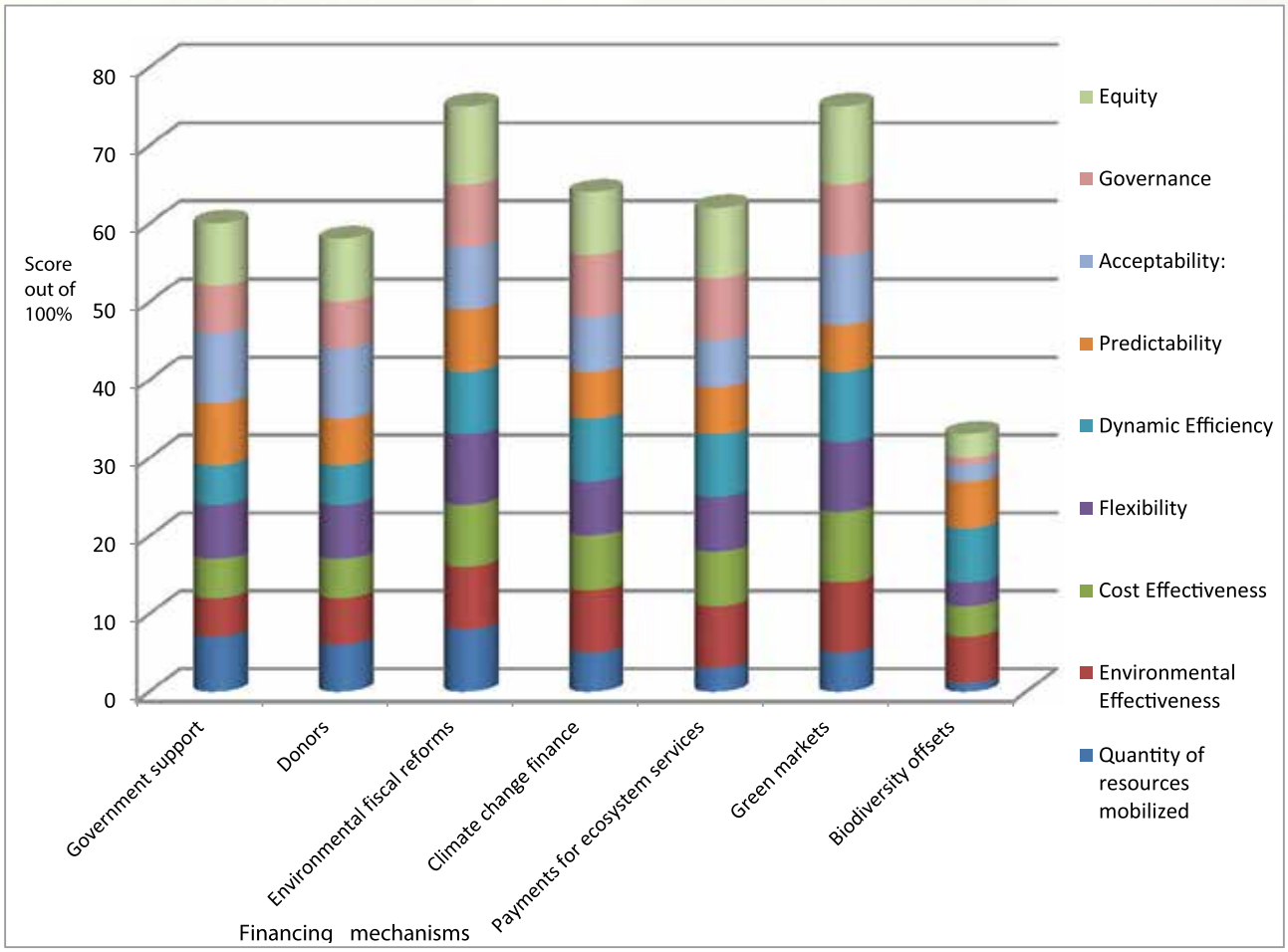
The financing mechanisms subjected to evaluation based on the nine criteria in section 4.1. The financing mechanism evaluated are government support, donor support (bilateral and multilateral), environmental fiscal reforms, climate change finance, payments for environmental services, green markets and biodiversity offsets. Whereas more financing mechanisms could exist, the design of this document is to merge them within the seven mechanisms considered in this report. For example, environmental fiscal reforms comprise fiscal instruments, financial instruments, liability systems, national environmental or conservation funds, and bonds and deposit refund systems (Panayatou 1995). On the other hand, green markets and payments for environmental services both fall under market creation actions, multilateral, bilateral and other forms of international donor supported finance including international trust funds fall under donors. Private and public financing approaches are also integrated in the seven mechanisms.

The assessment in Figure 9 is based on stakeholder and expert review of financing mechanisms for an earlier draft version of the guidelines. Environmental fiscal reforms and green markets have the highest scores on the evaluation criteria. Fiscal reforms have shown to generate the largest volume of resources for national agencies such as UWA, NFA and NEMA. Even, resources controlled elsewhere, the Uganda Revenue Authority managed environmental tax, which imposes a 20% surcharge charged on motor vehicles older than eight years imported in the country, is believed to be the largest environmental fiscal reforms based tax in Uganda (NEMA Environmental Economist pers. Comm. 2014). The parent laws on which fiscal reforms can be introduced are available; however, in many cases new reforms still require changes in legislation or regulations which may require a process reforms going through the Justice Law and Order Sector and the legislature. Therefore, the major efforts of the fiscal reforms are fulfilling undertaking reforms of parent laws and regulations.

Green markets, on the other hand, do not require adjustments in existing laws as they are generally catered for, although important reforms for the agricultural sector are still on-going. Converse to fiscal reforms, green markets current generate modest revenues of $36 million/ year (Namuwoza & Tushemereirwe 2011; NOGAMU 2010; Tumushabe et al. 2007) and most of these resources are incomes for different actors in the commodity value chains including farmers. There is little revenue for regulators. Indeed, in the forestry and wildlife sub-sectors where licenses are offered for non-timber products trade and ecotourism activities the supply chains are not fully developed and clear policy guidance still needed (NEMA 2012).

The Uganda Bio-Trade Program designed to support these biodiversity markets was funded by UNCTAD in the mid-2000s not sustained in the long-term. Nonetheless, the welfare benefits, high efficiency and equity score of green market initiatives means they will be a priority consideration in the Uganda biodiversity finance strategy.

Figure 9: Scoring for financing mechanisms for biodiversity conservation



Source: NBSAP stakeholder discussions

Government finance and donor finance are currently the most important sources of resources for biodiversity conservation in the country (NEMA 2014). However, they score lowly on flexibility, dynamic efficiency and cost-effectiveness. Government and donors offer predictable and generally large quantities of resources for biodiversity conservation activities and are therefore important sources for resources. In addition, the government and donor support systems also form the foundations of the governance arrangements for resource mobilisation and compliance, enforcement and monitoring arrangements. Therefore, it is essential that these financing mechanisms continue to be a central component of future biodiversity finance.

Payments for environmental services and climate finance are important sources of finance and represent the core innovation finance for Uganda in recent times. Uganda has shown strong potential for undertaking payments for environmental services initiatives with carbon payments being dominant. There are innovations in PES such as creation of revolving funds, village banks, trust or endowment funds and bundled payments for environmental services which are allowing for a pool of international funds (UNDP 2011).

With support from the Global Environment Facility (GEF), NEMA, and Chimpanzee Sanctuary & Wildlife Conservation Trust (CSWCT) and several national and international partners have developed an experimental methodology for testing the effectiveness of payment for ecosystem services to enhance biodiversity conservation in productive landscapes in the Albertine Rift. The pilot initiative showed that in the case of biodiversity conservation, government policies and regulations will encourage communities and external investors to support payments for biodiversity conservation. In addition, the design showed that additional funds from international payments and national endowment funds are needed to sustain the programs, clear information and communication with community-level stakeholders will also be needed to augment the financing mechanisms.

Current climate finance efforts in Uganda have focused on greenhouse gas mitigation through Clean Development Mechanism (CDM), voluntary carbon projects and development of Nationally Appropriate Mitigation Actions (NAMAs). All three approaches have taken on ground in the country. Whereas CDM projects may not integrate biodiversity conservation, integration of components of biodiversity conservation makes the projects more attractive, in a similar way as voluntary carbon projects. However, a deliberate strategy of bundling carbon payments with biodiversity finance is limited. REDD plus (Reduced Emissions from Deforestation and forest Degradation initiatives deliberate focus on maintaining forest biodiversity and when operational will including most of Uganda's protected areas (GoU 2011).

Biodiversity offsets are new to the country. The first biodiversity offset in the country has been used to conservation Kalagala Falls and Mabira Central Forest Reserve. Even if they are new, biodiversity offsets have the potential to contribute to (i) large hydro-electric power projects, (ii) oil and gas extraction and refinery activities, (iii) mining activities, especially in protected areas, (iv) road construction and public infrastructure development activities, and (v) large scale agricultural production such as oil palm production in the areas with significant levels of biodiversity.

The implementation of biodiversity is often oriented towards a limited group of large scale investors. Whereas biodiversity conservation is achieved, only limited amounts of resources will be available for use beyond the areas where the offset investment activity is taking place. For the national regulators and Government, the effort will be on making biodiversity offsets attractive as part of the Environment Impact Assessment (EIA) processes in the country. Biodiversity offsets could also be useful in arbitration of disputes over whether or not adequate effort is being put in place for large scale investors and the general public. A variant of biodiversity offsets is Mitigation Banking, which mostly used in the United States of America (US). Mitigation banking is the restoration, creation, enhancement, or preservation of a wetland, stream, or habitat conservation area which offsets expected adverse impacts to similar nearby ecosystems. The goal is to replace the exact function and value of the specific wetland habitats that would be adversely affected by a proposed project.

PART II: GUIDELINES AND ACTION PLANS

5. GUIDELINES FOR BIODIVERSITY CONSERVATION FINANCE IN UGANDA

6. ACTION PLANS FOR BIODIVERSITY CONSERVATION FINANCE IN UGANDA

5. GUIDELINES FOR BIODIVERSITY CONSERVATION FINANCING

5.1 Purpose of guidelines for biodiversity conservation financing

Uganda's guidelines for financing biodiversity conservation are aimed supporting the country mobilise adequate resources for biodiversity conservation in the country. The guidelines will enable the country implement its obligations towards resource mobilization and in establishing national targets, goals and actions for enhancing international financial flows and domestic funding for biological diversity. The guidelines also show how the country has adapted to meet its obligations under Decision X/3 of the conference of parties to the Convention on Biological Diversity.

5.2 National resource mobilization strategy

Uganda will establish a National resource mobilisation strategy for biodiversity conservation focal point and secretariat. The focal point will lead biodiversity conservation stakeholders in the country to develop and implement a national the strategy for resource mobilization should include, as appropriate, the design and dissemination of a country-specific resource mobilization strategy, with the involvement of key stakeholders, in the framework of updated national. The national resource mobilisation strategy comprises traditional and innovative financing mechanisms, criteria for selecting financing mechanisms and institutional arrangements.

5. 2.1 Traditional Financing Mechanisms

Traditional financing mechanisms in Uganda include financial disbursements from the central government, budget support allocations from donors, and trust funds. Biodiversity conservation stakeholders should aim at working with the government, donors and environment conservation trusts to ensure that the funds currently allocated and/or proposed in medium term and long-term expenditure frameworks are maintained.

Funds allocated and/or proposed by government, donors and trusts represent a core form of funding for biodiversity. Therefore stakeholders in government, private sector and civil society will work together to lobby parliament, and the finance ministry to ensure that the current proposals are at least maintained and at best increased in the medium and long-term.

The key areas of public finance that need to be increased are for the agricultural sector to attain the 10% allocation agreed by African Union countries. Public financing for the environment and natural resources, tourism, wildlife and antiquities sub-sectors need to be raised. One of the key ways of ensuring better effort in biodiversity conservation is matching sub-sector allocations with releases from the Ministry of Finance as indicated in the Medium Term Expenditure Framework (MTEF).

The Agricultural Sector, ENR and Tourism, Wildlife and Antiquities sub-sector should provide for local government to support biodiversity conservation. This will be achieved when National agencies such as the National Environment Management Authority (NEMA), National Forestry Authority (NFA), and Uganda Wildlife Authority (UWA) provide an allocation for local government activities such as wetlands management, watershed protection and biodiversity conservation, sustainable fisheries management, and tourism development at local government level.

Local governments need to raise the percentage of the local revenue for environment and natural resource management from the 2-5% to 10%. The financing should go towards improvements in compliance and enforcement, and investments that will generate additional revenue from natural resources management.

Conservation Trusts have become established in national or regional institutions that deliver a range of long-term benefits and services. Whereas conservation trusts generally fund operating expenses, spend-down or 'sinking' funds, which are typically distributed over three to five years but can extend to 20 years to execute a project or accomplish a specific objective and endowment, providing perpetual funding to sustain a park or protected area. The main areas of success have been endowment funds. Conservation funds are encouraged to invest in sink-funds as long as these lead to increased productivity and resilience of ecosystems.

5.2.2 Innovative financing mechanisms instruments

1. Payments for ecosystem services

In these guidelines a payment for environmental services scheme is defined as (i) a voluntary transaction in which, (ii) a well-defined environmental service (ES), or a form of land use likely to secure that service, (iii) is bought by at least one ES buyer, (iv) from a minimum of one ES provider, and (v) if and only if the provider continues to supply that service (conditionality). The biodiversity conservation options proposed in these guidelines include, but are not limited to purchase of high-value habitat, payment for access to species or habitat, payment for biodiversity-conserving management practices, tradable rights under cap & trade regulations, and support biodiversity-conserving businesses.

To achieve success with PES systems in biodiversity conservation, it is important to include the following considerations in design:

(i) A pro-poor PES program is one that maximizes its potential positive impact and minimizes its potential negative impact on the poor.

(ii) Keep transaction costs low. This is important in all PES programs, as it affects their efficiency. Keeping transaction costs low is particularly important when many potential participants are poor, as they will be relatively more heavily affected.

(iii) Devise specific mechanisms to counter high transaction costs. When many potential participants are smallholders, transaction costs will inherently be high. Specific mechanisms should be developed to reduce these costs, such as collective contracting.

(iv) Provide targeted assistance to overcome problems that impede the participation of poorer households. This may take the form of technical assistance or credit programs, for example.

(v) Avoid implementing PES programs in areas with conflicts over land tenure.

(vi) Ensure that the social context is well understood, so that possible adverse impacts are anticipated and appropriate remedial measures can be designed.

2. Biodiversity offsets

Biodiversity Offsets are measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and/or rehabilitated or restored, in order to achieve no net loss or a net gain of biodiversity (ten Kate et al. 2004).

Offsets can take the form of positive management interventions such as restoration of degraded habitat, arrested degradation or averted risk, protecting areas where there is imminent or projected loss of biodiversity.

Developers of large infrastructure projects such as hydroelectric power projects, mines, oil and gas projects and large agricultural production projects will be encouraged to use biodiversity offsets as part of the review of the Environmental Impact Statement (EIS). Results of cost-effectiveness, cost-benefit analyses and other economic instruments will be used to demonstrate the benefits of biodiversity offsets over alternative biodiversity loss mitigation measures. The main stakeholders, beneficiaries or losers, will use available incentives of acknowledgement in publications, international media, websites and use of environmental compliance audit reports and sector reporting to encourage project developers establish biodiversity offsets. The 10 key principles for implementing biodiversity offsets are (ten Kate et al. 2004):

(i) A biodiversity offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken according to the mitigation hierarchy.

(ii) Limits to what can be offset: There are situations where residual impacts cannot be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected.

(iii) A biodiversity offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.

(iv) A biodiversity offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.

(v) A biodiversity offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.

(vi) In areas affected by the development project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation, and monitoring.

(vii) A biodiversity offset should be designed and implemented in an equitable manner, which means the sharing among stakeholders of the rights and responsibilities, risks and rewards associated with a development project and offset in a fair and balanced way, respecting legal and customary arrangements. Special consideration should be given to respecting both internationally and nationally recognised rights of indigenous peoples and local communities.

(viii) The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the development project's impacts and preferably in perpetuity.

(ix) The design and implementation of a biodiversity offset, and communication of its results to the public, should be undertaken in a transparent and timely manner.

(x) The design and implementation of a biodiversity offset shall be a documented process informed by sound science, including an appropriate consideration of traditional knowledge.

3. Environmental fiscal reforms

Environmental fiscal reform" (EFR) refers to a range of taxation and pricing measures which can raise fiscal revenues while furthering environmental goals. EFR measures include (i) taxes on natural resource extraction, (ii) product subsidies and taxes (product taxes and product subsidies), (iii) taxes on polluting or harmful emissions and (iv)user charges or fees.

The feasibility of EFRs depends on: (i) natural resource pricing measures, such as taxes for forests and fisheries exploitation; (ii) reforms of product subsidies and taxes; (ii) cost recovery measures; (iii) pollution charges.

(i) Fiscal instruments, i.e. taxes and subsidies, are mechanisms for raising and transferring funds between sectors. While economic development is critical for lifting people out of poverty and raising living standards for the broader population, it also causes harmful side effects—particularly for the environment—with potentially sizeable costs for the macro-economy.

(ii) Fiscal instruments (emissions taxes, trading systems with allowance auctions, fuel taxes, charges for scarce road space and water resources, etc.) can and should play a central role in promoting greener growth. Fiscal instruments for biodiversity conservation should be employed based on three criteria: (i) *a) effective at reducing environmental harm*—so long as they are carefully targeted at the source of the problem (e.g., emissions); (ii) *cost-effective* (i.e., they impose the smallest burden on the economy for a given environmental improvement)—so long as the fiscal dividend from these policies is exploited (e.g., revenues are used to strengthen fiscal positions or reduce other taxes that discourage work effort and investment); (iii) *strike the right balance between environmental benefits and economic costs*—so long as they are set to reflect environmental damages.

(iii) Charge systems: Charges are defined as payments for use of resources, infrastructure, and services and are akin to market prices for private goods. In Uganda charge systems are used as permits. Charges include pollution charges, user charges e.g. for wetlands, betterment charges (imposed on private property which benefits from public investments), impact fees, access fees and administrative charges

(iv) Financial instruments: The financial sector is the set of institutions, instruments, and the regulatory framework that permit transactions to be made by incurring and settling debts, that is, by extending credit. *All companies, regardless of sector, both impact on biodiversity and ecosystems and depend on ecosystem services.* There is an important role for the financial sector in this regard, including: the management of biodiversity risks in lending and investment decisions and setting up of new innovative financial mechanisms for pro-biodiversity businesses and biodiversity conservation areas. Business can show leadership on biodiversity and ecosystems:

4. Green markets through natural resource trade and value chains

Market for green products refers to the trade mechanism for products certified using criteria that support the three objectives of the CBD. Such products are either natural products including wild plant and animal products used as food sources or used for bio-chemicals, new pharmaceuticals, cosmetics, personal care, bioremediation, bio-monitoring, and ecological restoration, or nature-based products involving many industries, such as agriculture, fisheries, forestry, biotechnology based on genetic resources, recreation and ecotourism.

Uganda is promoting green markets products through the organic agricultural value chains, sustainable non-wood and wood forest products, and wildlife products. The guidelines support the outcomes of the National Bio-trade Strategy and draft national organic agriculture policy. Uganda's priorities under bio-trade are: (i) ecotourism; (ii) wildlife use rights; (iii) non-wood forest products; and natural ingredients; and (iv) carbon trade. Organic agriculture in Uganda has generally focused on agricultural product lines for coffee, cotton and fruits and vegetables. Scenarios have suggested that bio-trade and organic agriculture can grow to up to between 5 and 10% of Uganda's commodity exports.

Bio-trade and organic agriculture in Uganda will be promoted through: (i) community based interventions such as collaborative natural resource management for communities living near protected areas, as well as communities living in biodiversity-rich areas. For farming systems biodiversity conservation seeks to create premiums from certified organic agriculture production; (ii) take advantage of available indigenous traditional knowledge in developing production practices; (iii) promote growth of local and regional markets alongside international markets; (iv) take advantage of favourable climate conditions to promote various products. Therefore semi-arid areas products as well as wet area products should be promoted concurrently. In Uganda's drier areas products such as Gum Arabica, hides and skins, beef and grains will be important products, while coffee, cotton and fish are important for the wetter areas; and (v) there will be a need to attract vocational skills and entrepreneurship training for viable value chains to emerge around product and services produced.

Institutional support will be needed to ensure that products are eligible to compete for markets. The markets in Europe, the United States, Asia and within Africa require appropriate standards attainment, volumes and regularity of supply. Other considerations such as market information, transaction costs and other business skills are acquired through product based entrepreneurship training.

5. Climate finance

The more frequently implemented carbon projects focus on climate change mitigation. Communities and project developers are urged to implement voluntary carbon standards that have explicit biodiversity conservation criteria such as Plan Vivo, CCB and VCS. For CDM and REDD Plus projects, biodiversity is generally embedded in forestry projects.

Biodiversity conservation stakeholders supporting projects that could affect some form of biodiversity such as wetlands, fisheries, vegetation, insect and animal population as well as agro-ecosystems should seek specific biodiversity criteria. NEMA, UWA and NFA, among others, should indicate this dimension if EIAs are undertaken. The development of NAMAs and National Adaptation Plans (NAPs) should make provisions, such as higher scores, where necessary, to convince providers of carbon finance to integrate biodiversity in the carbon projects.

There is a need to work partners who have a strong interest in biodiversity conservation such as the United States Agency for International Development (USAID), the World Bank, the German, Norwegian, Belgian, Swedish and United Kingdom Governments and other development partners to integrate biodiversity in their climate change support programmes.

Buyers of carbon credits should have the option of buying bundled carbon credits demonstrated. The possible bundled should include carbon, watershed and biodiversity conservation. If premiums are earned, they should be reflected as market incentives to attract more buyers. There is a need to upscale community carbon finance initiatives and facilities that promote bundled carbon finance with other forms of PES. The early initiatives currently being promoted should be promoted with additional facility support.

5.2.3 Criteria for instruments selection

The assessment of whether or not to adopt a financing mechanism will be based on the following criteria:

(i) Environmental Effectiveness: Will the instrument achieve the environmental objective within the specified time span and what degree of certainty can be expected?

(ii) Cost Effectiveness: Will the instrument achieve the environmental objective (or target) at the minimum possible cost to society?

(iii) Flexibility: Is the instrument flexible enough to adjust to changes in technology, the resource scarcity, and market conditions?

(iv) Dynamic Efficiency: Does the instrument provide incentives for developing and adopting new environmentally cleaner and economically more efficient technologies? Does it promote development of an environmentally sound infrastructure and economic structure in general?

(v) Equity: Will the costs and benefits of the instrument be equitably distributed? Who gains and who loses?

(vi) Predictability: Does the instrument combine flexibility and predictability?

(vii) Acceptability: Is the instrument understandable to the public, acceptable to the industry, and politically saleable?

(viii) Quantity of resources mobilized: What fraction of the problem is addressed by the resources mobilized from the instrument?

(ix) Governance in resource mobilisation and utilization: Has the design of the instrument catered for clarity in mobilisation and proper use of resources.

5.2.4 Institutional arrangements

1. Establishment of a National Resource Mobilisation Focal Point: Uganda will establish a national resource mobilization focal point to facilitate national implementation of the strategy for resource mobilisation. The primary function of resource mobilisation focal points is organizing the design and dissemination of a country-specific resource mobilization strategy, with the involvement of key stakeholders such as non-governmental organizations, indigenous peoples and local communities, environmental funds, businesses and donors, in the framework of updated national biodiversity strategies and

action plans. In addition, resource mobilization focal points should act as liaisons with the Secretariat. The national resource mobilization focal point will be responsible for implementing the 15 criteria of obligations to the CBD, as well as coordinating all the actions proposed under these guidelines.

2. NEMA provides overall coordination (including implementation of the CBD) while the respective Government agencies are responsible for day to day implementation of activities on conservation and management of biodiversity.

3. The Technical Committee on Biodiversity Conservation. The technical committee on biodiversity conservation was established under the National Environment Act Cap 153 (section 10). Persons appointed to serve on a technical committee serve in their personal capacity and appointment is based on qualifications and experience. The technical committee on biodiversity conservation is the lead technical advisory arrangement on biodiversity conservation in the country.

4. Key biodiversity conservation stakeholders: Directorate of Fisheries resources – management of fisheries; Uganda Wildlife Authority (UWA) – Wildlife Management (10 National Parks, 12 Wildlife Reserves); National Forestry Authority (NFA) – Forest Management –Central Forest Reserves (506); Uganda National Council of Science and technology (UNCST) – Biosafety and Biotechnology, Implementation of ABS regulations; National Agricultural Research Organisation (NARO) – Plant Genetic Resources, research on biodiversity, Directorates and departments of the Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Ministry of Water and Environment (MWE), Ministry of Tourism Wildlife and Antiquities (MTWA).

5. Academia, especially Makerere University, Nkozi University, Busitema University and Gulu University – Research, training of personnel. These institutions shall continue to provide support in development of policies, regulations and institutional arrangements for biodiversity conservation, including, but not limited to, plant genetic resources, access and benefit sharing and organic agriculture.

6. Local governments – environment and natural management within their jurisdiction- e.g. Local forest reserves, wetlands etc. Local governments are the main stakeholders in management of biodiversity outside protected areas. The management of forests, agricultural zoning and urban physical planning and zoning, management of wetlands, watershed and waste disposal within their jurisdiction. Local governments are key partners in resource mobilisation through local revenue and utilization of allocations from central government, donors and charitable donations

7. As part of implementation of guidelines - NEMA will be developing a programme on capacity building for resource mobilisation at sub-national level covering; District and Sub-county Local Governments, Urban Authorities. The support will be extended to revitalising Environment Management Committees at District, Sub-county and Parish levels. Support will also include developing a governance and reporting frameworks on resource mobilization and use. Simple criteria for selection of projects to enhance sustainability and productivity of ecosystems.

8. The private sector is a key partner in the sustainable extraction use and disposal of resources from the environment and nature. The private sector contributes to biodiversity conservation resource mobilisation through payment of national taxes, through subscription to innovative financing mechanisms, and through charitable donations. The private sector is also a direct investor in the exploitation or sustainable enhancement of productivity of ecosystems.

9. NGOs are also involved in biodiversity conservation. NGOs mobilise communities to participate in biodiversity conservation, work with government institution to support implementation of national programmes on biodiversity conservation. NGOs mobilise, lobby and support governance measures for judicious, sustainable, optimal and equitable use of resources mobilised for biodiversity conservation.

5.3 Supporting regulatory framework for resource mobilisation strategy

International Conventions for Biodiversity Conservation

1. Convention on Biological Diversity (CBD) Uganda signed the convention on 12th June 1992 and ratified the convention on the 8th September 1993.
2. The Cartagena Protocol on Bio-safety: Uganda signed the protocol on the 24th May 2000 and on the 30th November 2001 the protocol was ratified.
3. International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)
4. Convention in International Trade of Endangered Species of fauna and flora (CITES) – Uganda ratified the convention on 18th July 1991 and acceded to it on 16th October 1991).
5. Ramsar Convention on Wetlands – Uganda signed the Convention on 4th March 1988 and ratified it on 4th July 1988.
6. The Lusaka Agreement on Cooperative Enforcement Operations directed at Illegal Trade in Wild Fauna and Flora. Uganda signed it on 8th September1994 and ratified it on 12th April 1996.
7. United Nations Convention to Combat Desertification (UNCCD) – Uganda signed the agreement on 21st November 1994 and deposited the instrument for ratification on 25th June 1997.
8. United Nations Framework Convention on Climate Change (UNFCCC) – Uganda signed the Convention in June 1994 and ratified in September 1997.
9. Convention on the Protection of the World Cultural and Natural Heritage –Uganda ratified it on 20th November 1987.

National Legal Framework for Biodiversity Conservation

The Constitution of the Republic of Uganda (1995)

1. Objective XIII requires the State to protect important natural resources, including land, water, wetlands, minerals, oils, fauna, and flora on behalf of the people of Uganda.
2. Objective XXVII on Environment provides for the State, including local governments to promote the rational use of natural resources so as to safeguard and protect the biodiversity.
3. Article 39 provides for the right of every Ugandan to a clean and healthy environment.
4. Article 237(2)(b) requires Government or a local government to hold in trust for the people and protect natural lakes, rivers, wetlands, forest reserves, game reserves national parks and any land to be reserved for ecological and touristic purposes for the common good of all citizens.

5. Article 245 provides for Parliament to enact laws intended to protect the environment from abuse, pollution and degradation as well as for managing the environment for sustainable development and promoting environmental awareness.

National laws on environment and biodiversity

1. The National Environment Act Cap 153.
2. The Land Act Cap 227.
3. The Uganda Wildlife Act Cap 200.
4. The Local Government Act Cap 243.
5. The Agricultural Seeds and Plant Act (1994).
6. The Plant Protection Act Cap 244
7. The Seeds and plant Act, 2006
8. The National Forestry and Tree Planting Act 2003.
9. Environment Impact Assessment Regulations, 1998.
10. Regulations on Access to Genetic Resources and Benefit Sharing 2005.
11. Regulations on Wetlands, Riverbanks, Lakeshores, Hilly and Mountainous areas (2000).
12. The National Environment (Minimum Standards for Discharge of effluents into water or land) Regulations

Policy framework & Action plans on biodiversity in Uganda

The National Environment Management Policy (1994) – provides for sustainable social-development. On biodiversity, the Policy objective is to conserve and manage Uganda's biodiversity in support of national socioeconomic development.

Other important policies include

1. The Decentralization Policy of 1997.
2. The Wildlife Policy of 1999.
3. The Forestry Policy of 2001.
4. The Fisheries Policy 2004.
5. The National Tourism Policy 2003.
6. The National Biotechnology and Biosafety Policy (2008).
7. The National Biodiversity Strategy and Action Plan (2008).
8. The National Forest Plan (2001).
9. The National Wetlands Policy (1996).
10. The National Development Plan.

The National Development Plan and the Environment

Priority Area	Priority Interventions	Key Performance Targets (2016-2020)	Key Performance Indicators (2016-2020)
1. Protect and restore the integrity and functionality of degraded fragile ecosystems (hilly and mountainous areas, river banks, lake shores and water towers)	Develop and implement strategic programs for the restoration and management of key and critical fragile ecosystems (lake shores, riverbanks, hilly/mountains areas, and rangelands	Strategic restoration programs/projects developed and implemented	Number of strategic restoration programs/projects developed and implemented
	Develop and implement mechanisms for the promotion of Payment for Ecosystem Services (PES)	PES mechanisms/guidelines developed for forests and wetlands implemented	Number of mechanisms/guidelines developed and implemented
2. Public education and awareness	Develop and implement awareness programmes on opportunities of ENR for employment and wealth creation	Annual strategic awareness programs developed and implemented	Number of annual awareness programs developed and implemented
	Develop and implement a program on green economy awareness and support implementation of green economy initiatives	1 Strategic awareness program on green economy developed and implemented	Level of public and stakeholders' awareness on green economy
	Promote education for sustainable development	Education for Sustainable Development (ESD) Strategy promoted and adopted in 5 more tertiary institutions	Number of tertiary institutions that have adopted ESD Strategy in their academic and non-academic programs
	Develop and support implementation of a programme for stakeholders' debates and dialogues on environmental and sustainable development issues	Annual National Forum (ANF) on Sustainable Development and policy dialogues organized and held	Number of ANF and policy dialogues organized and held
3. Enforcement of compliance with environmental laws, regulations and standards	Design and implement compliance assurance programmes including regulatory best practices, environment assessment (SEA, EIA, EA), compliance assistance, self-monitoring programmes and the use of economic instruments	A comprehensive National Environmental Compliance and Enforcement Strategy (NECES) developed and implemented	Level of environmental compliance within projects, facilities, the public and community.
	Enhance access to environmental justice including establishment of environmental courts/tribunals	National Environmental Tribunal established and operationalized	Level of access to environmental justice
	Support the litigation capacity of ENR institutions	The litigation capacity of the key ENR institutions; NEMA, NFA, UWA and MWE developed	Number of institutions with improved litigation capacity
	Support capacity enhancement of judicial officers and law enforcement agencies	Judicial officers and law enforcement agencies trained on environmental laws	Number of judicial officers and law enforcement agencies trained
	Develop and implement environmental monitoring and inspection programmes	Annual environmental monitoring and inspection programs developed and implemented.	Level of environmental compliance by developer, the public and community.

Priority Area	Priority Interventions	Key Performance Targets (2016-2020)	Key Performance Indicators (2016-2020)
4. Integration of environmental sustainability concerns into the planning and development processes	Support mainstreaming and integration of environmental concerns into policies, plans, programmes and budgets (capacity building, tools/instruments for environment mainstreaming)	Environment management integrated in all Sector Working Groups and the key sector policies	Number of sector policies that have integrated and implemented Sector Environment Action Plans (SEAPs)
		The capacity of key Ministries, Departments and Agencies (MDAs) built on the establishment and implementation of economic instruments	Number of MDAs trained and implementing economic instruments
	Promote environmental valuation and resource accounting to demonstrate the contribution of ENR and the costs of its degradation to GDP and development goals	Economic valuation of key natural resources like soils, minerals, wetlands, water resources… done and integrated into sector plans and budgets	Number of natural resources valued and integrated into sector plans and budgets
		National Green Accounting System developed	The economic values of key natural resources integrated into GDP
	Support the implementation of national initiatives on transition to a green economy (low carbon emissions and pollution levels; resource use efficiency; conservation agriculture, inclusive and equitable growth and enhanced natural capital base)	National Green Economy Indicators (NaGEIs) developed	National baseline information on green economy established
		National Green Economy Strategy (NaGES) developed and mainstreamed into key Sector Development Plans (SDPs)	Number of SDPs that have mainstreamed NaGES
	Support and promote the use of clean and efficient energy technologies including sustainable biomass and improved cook stoves	National Biomass Strategy popularized.	The level of awareness on clean and efficient energy technologies
5. Strengthen the policy, legal and institutional frameworks to support efficient and effective environment management.	Implement the revised Environment Management Policy (NEMP, 2014), the National Environment Act-NEA (1995 as amended) and other relevant legislation	NEMP and NEA integrated into key sector policies and laws for implemented	Number of sectors that have integrated NEMP and NEA
	Develop and implement a program for Institutional support to ENR institutions, LGs and MDAs including key skills and knowledge acquisition, equipping and retooling	An integrated ENR Management Program developed for both local governments and sectors	Level of institutional support and the capacity status of the beneficiary local governments and sectors
	Develop and implement strategy on Resource mobilization for environmental management	National Resource Mobilization Strategy (NaRMS) for ENR Management developed	The level of resources mobilized for ENR Management
	Develop and implement mechanisms for strengthening institutional coordination and collaborations.	A strategy developed for institutional coordination, networking and collaboration within ENR institutions	The level of efficiency and effectiveness within ENR Management institutions (level of good governance)

Priority Area	Priority Interventions	Key Performance Targets (2016-2020)	Key Performance Indicators (2016-2020)
6. Strengthen and develop national, regional and international partnerships	Support broad based multi-stakeholder partnerships with CSOs, the private sector, Local Governments and MDAs that mobilize; knowledge, expertise, technologies and financial resources to achieve Sustainable Development.	National network and partnership facility developed for effective ENR Management	Level of stakeholder coordination and partnership
	Support domestication and enhance synergies and linkages in the implementation of MEAs, regional and sub-regional cooperation frameworks	National MEAs Secretariat to coordinate to coordinate the MEAs domestication and implementation processes through an Inter-Ministerial Steering Committee	Efficiency and effectiveness in the coordination of MEAs
		Key MEAs domesticated through national policies and legislation and implemented through National Action Plans	Number of MEAs domesticated and implemented
	Coordinate and guide national participation in sub-region, regional and international for environment management and sustainable development for optimum benefits to the country	A national focal point for the key ENR related regional and international fora and conferences established for effective participation of Uganda	• The number of fora/conferences Uganda has participate in • Level of implementation of the commitments from the fora and conferences
7. Value addition to ENR goods and services	Support and operationalize frameworks for PPP in the management and development of ENR goods and services	National Guidelines for PPP in ENR Management developed	The level of participation of the private sector in ENR Management
	Support and operationalize strategies for promotion of innovative ENR enterprises such as; wildlife farming (butterfly farming, ostrich farming, crocodile farming etc), eco-based cultural tourism	National Strategy and Guidelines for ENR-based Enterprise Planning, Selection and Management (EPSM) developed and popularized	Number of ENR-based enterprises developed/operationalized by farmers and traders
	Support development of a data base detailing the potential and opportunities for investment under ENR with linkages to UIA	ENR Investment Database developed	Level of access to information on ENR based investments
	Enhance creation of markets for ENR goods and services such as carbon markets and other ecosystem services	National Strategy and Guidelines developed for carbon market and PES for project initiation/ development.	Number of CDM and PES projects initiated/ developed

Priority Area	Priority Interventions	Key Performance Targets (2016-2020)	Key Performance Indicators (2016-2020)
8. Electronic and other hazardous waste management	Promote establishment of sanitary waste management facilities under the PPP arrangement	Sanitary waste management facilities promoted in all the key municipal towns	Number of municipal towns that have god sanitary waste management facilities
	Promote establishment of regional centres for e-waste management (collection centres, recycling plants, re-use facilities and incinerators)	Regional centres and incinerators established	Number of regional centres and incinerators established
	Promotion of science and technology innovation capacities for effective waste management	Partnerships mobilized for technology transfer and capacity building	• Number of partners mobilized for technology transfer; and • Level of innovations and applications of technologies in waste management
9. Oil and Gas explorations and development	Operationalization of the Oil and Gas environmental monitoring plan	The Oil and Gas environmental monitoring plan effectively implemented by all the responsible Lead Agencies	• The number of Lead Agencies that are effectively implementing the plan; and • The level of environmental compliance within the Oil and Gas region and industry
	Capacity development including staff, skills and knowledge, tools and equipment	The capacity of the key Lead Agencies in Oil and Gas sector developed	• The number of Lead Agencies trained, equipped and tooled; and • The efficiency and effectiveness level of the beneficiary Lead Agencies in the management of environmental aspects of Oil and Gas
	Coordination and the implementation of the oil spills contingency plan	Oil and Gas Spill Contingency plan operationalized	Efficiency and effectiveness in the management of Oil and Gas spills
	Implement the recommendations of the SEA for Oil and Gas development (including preparation of an integrated Action Plan and developing an environmental and social safeguard framework)	National Strategy and Action Plan for the SEA developed and operationalized	Level of integration and operationalization of the SEA by the responsible Lead Agencies

Priority Area	Priority Interventions	Key Performance Targets (2016-2020)	Key Performance Indicators (2016-2020)
10. Sound chemicals management	Support establishment of regional poison and acid centres/ emergence response centres under the existing health institutional frameworks	Regional poison and acid centres established and operationalized	Number of poison and acid centres established and operationalized
	Support Development of comprehensive policy, legal and institutional frameworks for chemicals management	National legislation and institutional framework for sound chemicals management operationalized	Level of compliance to the legislation on sound chemicals management
	Develop and implement a capacity building program for sound management of consumer and industrial chemicals	Capacity Building Program for the industrialists and consumers of chemicals developed and operationalized	The level of knowledge transfer, equipping and tooling of the industrialists and consumers of chemicals.
11. Implementation of national biodiversity action plan and biosafety targets	Develop mechanisms for implementation of the National Biodiversity Strategic Action Plan (NBSAP)	An action plan/program for the implementation of NBSAP developed and implemented.	Level of the implementation of the NBSAP
	Build capacity for implementation of national biodiversity targets,	Resources are mobilized for the effective implementation of NBSAP	
	Develop and implement mechanisms for harnessing benefits of biosafety and biotechnology	Develop a National Strategy and Guidelines for biotechnology and biosafety	National Strategy and Guidelines in place

Priority Area	Priority Interventions	Key Performance Targets (2016-2020)	Key Performance Indicators (2016-2020)
12. Promotion of Sustainable Consumption and Production	Promote a culture of sustainable lifestyles through public education, awareness raising and dissemination of sustainability information on products and services, policies and incentives.	National SCP Secretariat established and operationalized to coordinate SCP initiatives and activities through an Inter-Ministerial Steering Committee	Level of participation of MDAs in SCP
		National Awareness Strategy (NAS) developed for SCP practices	Level of community and public awareness on SCP
	Reduce per capita food waste at retail and consumer levels.	Develop National Awareness Program on food consumption and wastes	Level of public and community knowledge transfer and awareness on optimum food consumption and waste reduction
	Create economic incentives and scientific and technological capacities that enable and promote sustainable consumption and production.	Guidelines for the development and operationalization of economic incentives and investment promotion of appropriate technologies developed	Level of technology transfer for SCP
	Promote sustainable, competitive and transparent procurement	Guidelines for green procurement developed and integrated into procurement plans of MDAs	Number of MDAs implementing green procurement plans.
13. Climate change induced environmental disasters response management	Support Development and implementation of catchment based management and restoration plans	Catchment-based restoration plans for vital and critical ecosystems developed and operationalized	Number of catchment-based restoration plans for vital and key ecosystems developed and operationalized
	Develop and implement a capacity building program for disaster prevention and response at national, local and community levels	National Disaster Management Capacity Building Program (NDCBM) developed	The level of institutional efficiency and effectiveness in disaster management
	Support mapping out climate disaster prone areas to guide adaptation and mitigation efforts	National Disaster Map (NDM) developed	Access to information for effective disaster management
	Support scaling up of Ecosystem Based Adaptation (EBA) to climate change	National Strategy and Guidelines for EBA developed and integrated into the key sectors	Number of sectors implementing EBA
14. Research and innovation	Promote action-oriented research for the enhancement of environmental quality, integrity and productivity	Research in ecological and socio-economic values of ecosystems, disaster management, bio-technology and bio-safety, energy, soil and water conservation, air and water pollution… carried out and disseminated.	Number of action-oriented research and studies carried out and disseminated.

5.4 Obligations for reporting on national resource mobilization strategy

The CBD National Focal Point will take lead on facilitating the process for enabling fulfilment of reporting obligations on resource mobilisation for biodiversity conservation. Whereas Uganda has several means of mobilising and generating resources for biodiversity conservation, parties to the CBD have agreed on 15 indicators for reporting on Uganda's resource mobilisation strategy. These indicators include:

Indicator 1: Aggregated financial flows, in the amount and where relevant percentage, of biodiversity-related funding, per annum, for achieving the Convention's three objectives, in a manner that avoids double counting, both in total and in, inter alia, the following categories:

(i) Official Development Assistance (ODA);

(ii) Domestic budgets at all levels;

(iii) Private sector;

(iv) Non-governmental organizations, foundations, and academia;

(v) International financial institutions;

(vi) United Nations organizations, funds and programmes;

(vii) Non-ODA public funding;

(viii) South-South cooperation initiatives; and

(ix) Technical cooperation.

Indicator 2: Number of countries that have:

(a) Assessed values of biodiversity, in accordance with the Convention;

(b) Identified and reported funding needs, gaps and priorities;

(c) Developed national financial plans for biodiversity; and

(d) Been provided with the necessary funding and capacity building to undertake the above activities.

Indicator 3: Amount of domestic financial support, per annum, in respect of those domestic activities which are intended to achieve the objectives of the Convention on Biological Diversity;

Indicator 4: Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area;

Indicator 5: Level of CBD and Parties' support to other financial institutions that promote replication and scaling-up of relevant successful financial mechanisms and instruments;

Indicator 6: Number of international financing institutions, United Nations organizations, funds and programmes, and the development agencies that report to the Development Assistance Committee of Organisation for Economic Co-operation and Development (OECD/DAC), with biodiversity and associated ecosystem services as a cross-cutting policy;

Indicator 7: Number of Parties that integrate considerations on biological diversity and its associated ecosystem services in development plans, strategies and budgets;

Indicator 8: Number of South-South cooperation initiatives conducted by developing country Parties and those that may be supported by other Parties and relevant partners, as a complement to necessary North-South cooperation;

Indicator 9: Amount and number of South-South and North-South technical cooperation and capacity building initiatives that support biodiversity;

Indicator 10: Number of global initiatives that heighten awareness on the need for resource mobilization for biodiversity;

Indicator 11: Amount of financial resources from all sources from developed countries to developing countries to contribute to achieving the Convention's objectives;

Indicator 12: Amount of financial resources from all sources from developed countries to developing countries towards the implementation of the Strategic Plan for Biodiversity 2011-2020;

Indicator 13: Resources mobilized from the removal, reform or phase-out of incentives, including subsidies, harmful to biodiversity, which could be used for the promotion of positive incentives, including but not limited to innovative financial mechanisms, that are consistent and in harmony with the Convention and other international obligations, taking into account national social and economic conditions;

Indicator 14: Number of initiatives, and respective amounts, supplementary to the financial mechanism established under Article 21, that engage Parties and relevant organizations in new and innovative financial mechanisms, which consider intrinsic values and all other values of biodiversity, in accordance with the objectives of the Convention and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization;

Indicator 15: Number of access and benefit sharing initiatives and mechanisms, consistent with the Convention and, when in effect, with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization, including awareness-raising, that enhance resource mobilization;

ACTION PLANS

Sixteen action plans have been proposed outlining the resources required for financing biodiversity conservation in Uganda. The action plans show the resources required by different stakeholders to undertake biodiversity conservation in Uganda as well as the new operational framework that coalesces all stakeholders actions around the new resource mobilisation focal proposed. Therefore, the action plans draws from the NBSAP document, and discussions with stakeholders, to propose strategic biodiversity conservation actions and the resources that will be required to attain the set goals. Currently, the financing gap is estimated at $455 million/year and $670 million is needed for biodiversity conservation related activities, a number of these activities lie outside the confines of the NBSAP and future improvements in financial analysis will need to collate information on activities in private sector, non-governmental agencies and impact mitigation activities within public sector. Through cost-effectiveness and improved governance, the action plans below propose the biodiversity conservation actions and finance mobilisation strategy for 2015 to 2025. The strategy is built on actions that directly contribute to biodiversity conservation.

6.1 Action plan to establish and operationalize a resource mobilisation focal point

The resource mobilisation focal point will be the central focus of developing and scaling up biodiversity conservation financing arrangements. The focal point will also collate data on on-going initiatives within and outside the country and passing on adequate information and guidance to national stakeholders and international partners and parties who may be interested in similar instruments or information. The focal point will provide support for public finance revenue and management arrangements for biodiversity conservation stakeholders in the country.

Goal: establishing and operationalizing a National Resource Mobilisation Focal Point				
	Responsibility	Funds required $	Human & other resources	Time line
Objective : Review policy, legal and institutional frameworks and agree on appropriate institutional arrangements and make contribution for operationalizing focal point	CBD focal point All other stakeholders	300,000	Consultancy services, office space	2015 – 2025
Objective: Establish and operationalize the secretariat Activities • Develop instruments based on the traditional and innovative financing options • Pilot or initiate scale-up of successful instruments with different stakeholders • Contribute reports on financing mechanisms for CBD secretariat • Support governance and M&E activities for biodiversity action plan implementation – establish public finance arrangements for revenue and management finance	As agreed by stakeholders CBD Focal point	1,200,000 1,200,000 200,000 1,000,000 2,000,000	Programme officer/ coordinator on biodiversity finance mechanism for Uganda Office space	2015-2025 2015-2025 2015-2025
Sub-total		5,700,000		

6.2 Action plan for biodiversity conservation coordination 2014 – 2020

The biodiversity conservation activities in Uganda are coordinated through the actions of key stakeholders and the existing coordination arrangements under the CBD secretariat in NEMA. However, the biodiversity coordination activities extend to all three objectives of the CBD as well as interlinked activities under the Cartagena Protocol, the Treaty on Plant Genetic Resources Food and Agriculture, and the other Rio Multilateral Environmental Agreements (MEA), which have components of biodiversity. The key actions for biodiversity coordination in Uganda over the 2006 to 2020 period will include supporting current enforcement and compliance actions, capacity building and valuation studies to complement the efforts for resource mobilisation.

	Responsibility	Funds $/year	Human resource	Others
Goals Functioning of Biodiversity Conservation Coordination Initiative & CBD Focal Point & Improved collaboration between the CBD NFP and other international conventions				
Objective 1: Operationalizing of BBCI the institutional network (platform for cooperation on collaborative management and benefit sharing)				
Activities to be implemented Support law enforcement on biodiversity conservation at LG level - District		4,480,000	A focal point and programme assistant	2015 – 2025
Capacity building to plan for biodiversity conservation – central government and LGs – District		4,480,000		2015 – 2025
Sub-total		8,960,000		
Objective 2: Valuation of biodiversity by ecosystems level.				
2016. Valuation of Mountain biodiversity Rwenzori complex - Rwenzori, Baker, Speke, Stanley; Virunga complex – Gahinga, Muhabura, Sabyinyo Mt. Elgon &Tororo Rock Karamoja Region - Moroto, Imotong Mountains, Zulia and Kadam, Morungole, 2. Valuation of forest biodiversity 3. Valuation of wetlands biodiversity 4. Valuation of National Parks & Reserves 5. Valuation of wildlife outside PAs 6. Valuation of biodiversity in aquatic systems 7. Valuation of biodiversity of agro-ecosystems 8. Valuation of biodiversity of grasslands	NEMA/LGs – Mountains; NFA – Forests and District Local Gov'ts UWA & LGs/ NEMA – Pas & wildlife outside Pas Dept. Fisheries Res./NAFIRRI MAAIF/PMA/ NEMA – agro-ecosystems MAAIF/MoLG/ MWE/ UWA/ NEMA/LGs – grasslands	1,000,000 1,000,000 1,000,000 1,000,000 400,000 1,000,000 1,000,000 1,000,000	Consultancy services Steering committees Technical oversight (international)	2015-2035 2015 – 2025 2015-2025 2015-2025 2015-2025 2015-2025 2015-2025 2015-2025 2015-2025
Sub-total (2015-2020)		**7,000,000**		
Total		**15,960,000**		

6.3 Management of biodiversity in protected areas

Management of biodiversity in protected areas represents one of the largest activities of biodiversity conservation in the country. The biodiversity to be protected is in national parks, wildlife reserves and sanctuaries. In addition, there is biodiversity in central and local forest reserves. The function therefore is split between central government agencies and District Local Governments (DLGs).

Goal: Management of biodiversity in Protected Areas				
	Responsibility	**Funds$/year**	**Other resources**	**Timeline**
Objective 1: Improve Sustainability of Conservation Agency in charge of 10 National Parks, 12 Wildlife Reserves, 14 Wildlife Sanctuaries and provides guidance for 5 Community Wildlife Areas (5 years) Activities: • Implementation of UWA Business plan and Wildlife System Plan • Ecotourism development especially community based eco-tourism • Develop and implementation of monitoring and research policy for biodiversity components e.g. Pas • Policy and institutional framework that enhances collaboration and ensures coordination regarding wildlife trade	**Uganda Wildlife Authority** and Ministry of Tourism, Wildlife and Antiquities NEMA Focal Point	312,000,000	Office space Technical experts and staff hours Field monitoring, data collection reporting and interventions Database management Research and management actions	2015 – 2025
Objective 2: Capacity building on law enforcement on illegal Wildlife trade Activities (5 years) • UWA, Customs – URA, Uganda Police; cross border cooperation • Lusaka Agreement – Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora • Develop legislation on enforcement of CITES and specify mechanisms for monitoring wildlife trade	Ministry of Trade & Industry Ministry of Tourism, Wildlife and Antiquities **UWA** URA, Uganda Police NEMA Local Governments	1,000,000	UWA technical capacity building Office space and equipment	2015 – 2025

Goal: Management of biodiversity in Protected Areas				
	Responsibility	**Funds$/year**	**Other resources**	**Timeline**
Objective 3: National Forest Plan components for biodiversity protected in central forest reserves, *based on the NFA Business Plan* Activities:: • NFA inventories for biodiversity monitoring • NFA reforestation of degraded areas, plan to plant 2500 ha/year for 10 years • Benefit sharing in Collaborative Forest Management. • NFA – Forest Nature Conservation Master plan integration of biodiversity concerns into NFA programmes.	National Forestry Authority Ministry of Water and Environment – Forestry Sector Support Department District Forest Services	198,320,800	Office space Equipment Technical assistance	2015 – 2025
Objective 4: Management of 12 Ramsar sites (Pas and wetlands), and management of wetland areas gazetted as Pas Activities : • Strategic plan development & development of bylaws • Wetland Restoration and management & law enforcement	Wetlands Department, NEMA, DWRM/ MWE	7,200,000	Office space Equipment Technical assistance	2015-2025
Subtotal		**517,520,000**		
Objective 5: Biodiversity conservation for local forest reserves. Activities • Development management plans through stakeholder engagement • Implement management plans together with District leaders, including potential for enhancing community benefits	DLGs MoLG NEMA, UWA, NFA NGOs	2,240,,000	extra technical support to implement biodiversity conservation strategies office space, equipment	2015-2025
Total		**519,760,800**		

6.4 Action plan for national bio-trade programme

After implementing a successful bio-trade programme, there is potential for scaling up the successes in ecotourism, wildlife trade, and trade in non-wood forest products. A strategy and institutional arrangements will be needed. Some of the initiatives were new and required piloting while others need scaling up. A financing facility provides a plat form for scaling up the national bio-trade opportunities.

Goal: Implementation of a National Biotrade Programme				
	Responsibility	**Funds required $/year**	**Human & other resources**	**Timeline**
Objective 1: A National Biotrade Programme Regulatory, Policy and Institutional Framework Activities: ▪ Establish regulations and guidelines for bio-trade for sustainable use of ecosystems and ecosystem services Establish a multi-institutional coordination and operating platform for Bio-Trade	Uganda Export Promotions Board & Ministry of Trade and Industry Ministry of Tourism, Wildlife & Antiquities UEPB UWA NEMA NFA NGOs: WCS, IUCN,	1,200,000 400,000	Office space Focal Point on Biotrade Programme Assistant Consultancies	2015 – 2025
Objective 2: Provide financing facility for start-up with recoverable funds in a revolving fund for other start ups **Activities** ▪ Establish a financing facility secretariat for bio-trade ▪ Mentoring and financial management to recover funds and maintain a revolving fund ▪ Provide funds for facility at $1 million	UEPB UWA NEMA NFA	200,000 200,000 2,000,000	Equipment and staff time Expertise from long-term contracted consultants and short term consultants or technical experts Financial institutions	2016-2025
Sub-total		**4,000,000**		

6.5 Action plan regulations on access to genetic resources & benefit sharing

Genetic resources and benefit sharing are new areas, and while NEMA has developed regulations, there may be a need to consider industrial level activities and the protection poor communities would needed. On the other hand, there is a need to consider the possibility of exploiting these rights to genetic resources for the economic benefit they could offer communities. However, there is a need to ensure that exploitation and use of genetic resources is safe, equitable and sustainable.

Goal: Implementation of Regulations on Access to Genetic Resources and Benefit Sharing				
	Responsibility	**Funds $/year**	**other resources**	**Timeline**
Objective 1: Ongoing activities of maintaining compliance to - Access to Genetic Resources and Benefit Sharing Activities: ▪ Investment in infrastructure) ▪ Capacity Building Operational costs & Coordination mechanism	NEMA Focal Point Uganda National Council for Science and Technology (UNCST) Competent Authority. NEMA GEF NARO	1,000,000	Focal Point Programme Assistant	2015-2025 2015-2025 2015-2025
Objective 2: Feasibility studies and establishment of baselines Activities ▪ Develop baseline for genetic resources and current benefit sharing arrangements ▪ Feasibility analyses for investment possibilities as well as sustainable increase in productivity of ecosystems	NEMA Focal Point Uganda National Council for Science and Technology (UNCST) Competent Authority. NEMA NARO Universities GEF	1,000,000 500,000	International and national Technical experts Analysts for pharmaceutical, ingredients & other uses	2015-2025 2016-2025
Sub-total		**3,500,000**		

6.6 Action plan for information sharing mechanisms – CHM

The clearing house mechanism is an information sharing mechanism for biodiversity conservation stakeholders in the country, among themselves, with the CBD secretariat and other parties to the convention. The funds required will go towards establishing a database and supporting data collection, and analyses and reports, as well maintaining working time. Crucially, this activity will allow for efforts to include as many stakeholders as possible.

Goal: Implementation of Biodiversity information sharing mechanisms – CHM				
	Responsibility	**Funds $/year**	**Other resources**	**Timeline**
Objectives: Support operations of the Clearing House Mechanism Activities: • Complement information management systems of UNCST, UWA, NFA, WMD, NARO, Botany Department at Makerere University, Zoology Department (Makerere University), Institute of Environment and Natural Resources (Makerere University) and Nature Uganda among others. Maintaining online network • Synthesis and maintaining information exchange platform among different institutions	**NEMA/MWE** UNCST, UWA, NFA, WMD, NARO, Botany Department at Makerere University, Zoology Department (Makerere University), Institute of Environment and Natural Resources (Makerere University) and Nature Uganda among others	4,000,000 1,000,000 2,400,000	Focal point in NEMA An information management system assistant Office space Cooperation from information systems officers of key institutions	2015-2025 2015-2025 2015-2025
Total		**6,220,000**		

6.7 Action plan for implementation of national invasive species strategy and action plan

Invasive species can have debilitating effects on indigenous ecosystems. Existing species that are unable to compete with invasive species are at risk of extinction and the livelihoods therefore supported are also at risk. Therefore, a programme for managing invasive species and the associated risks is considered in this action plan.

Goal: Implementation of National Invasive Species Strategy and Action Plan				
	Responsibility	**Funds req'd $/ year**	**Human & other resources**	**Timeline**
Objective: Implementation of National Invasive Species Strategy, Action Plan and Policy Guidelines for : Activities: • Awareness creation Undertake training using Manual to manage/control several species for District Environment Officers Monitoring evaluation	NEMA, MAAIF, LGs, NFA, UWA, NGOs	2,024,000 4,480,000 1,600,000	Focal point Programme Assistant Office space Coordination mechanism	2015-2025 2015-2025 2016-2025
Total		**8,104,000**		

6.8 Action plan for involvement of local communities in biodiversity management

The political economy of biodiversity conservation in Uganda is skewed with both urban and rural communities unable to effectively participate in the management of biodiversity because of inadequate information, and/or capacity to participate. Therefore using the existing structures of the Ministry of Water and Environment (MWE), Ministry of Local Government (MoLG), Ministry of Agriculture Animal Industry and Fisheries (MAAIF), NEMA and the DLGs capacity building is proposed. The capacity building will take local environment committees in the local governments and pilot support will be provided to mobilise and educate local communities.

Goal: Facilitated the involvement of local communities in biodiversity management				
	Responsibility	**Funds required $/year**	**Human & other resources**	**Timeline**
Objectives: capacity building for Local governments, and awareness creation for communities on biodiversity conservation. Activities ($ 10,000 for each of 112 Districts for • Develop a capacity building programme and strategy and materials local environment committees ($10,000) • Implement training programmes and awareness • Develop and implement a communication strategy	MWE, MoLG, MoTWA, MAAIF District Local Governments	4,480,000	Focal point Programme Assistant Office space Coordination mechanism	2015-2025
Total		**4,480,000**		

6.9 Integrate of indigenous knowledge & practices in biodiversity conservation

Indigenous knowledge and practices are key to the survival of some of the oldest communities in the country. The knowledge and practices have been useful in biodiversity conservation and maintaining livelihoods. Actions are proposed towards continued development, reporting, monitoring and evaluation of the indicators on indigenous knowledge and practices.

Goal: Continued Development, reporting and Monitoring and Evaluation of Biodiversity Indicators				
	Responsibility	**Funds required $/year**	**Human & other resources**	**Timeline**
Objective 1: Implementation of data collection on indicators for biodiversity conservation and Monitoring and Evaluation Framework Activities: • Identify and build capacity on skills and other capacity to collection information on biodiversity indicators • Implement and report on M&E biodiversity indicators • Capacity building for all DLGs (5 years)	NEMA UWA, UNCST, NAFORRI NARO Makerere University – Botany, Zoology and Dept of Environment Mgt MAAIF, MOLG and all other key stakeholders	2,400,000 800,000 4,480,000	Have a focus person in all key biodiversity conservation agencies Office space and maintenance of a database	2015 – 2025 2015 – 2025 2015 – 2025
Total		7,680,000		

6.10 Action plan for information, education and public awareness on biodiversity

Public information, education and awareness will be essential in creating a political economy where stakeholders are support of efforts to mobilise additional resources for biodiversity conservation, through public information and awareness stakeholders will be able to easily identify with their role in the effort of biodiversity conservation.

Goal: Public awareness on biodiversity promoted and implemented				
	Responsibility	**Funds $/ year**	**Human & other resources**	**Timeline**
Objective 2: Develop and implement a National Communication Strategy on biodiversity conservation Activities: ▪ Develop communication strategy through consultations of public stakeholders and local stakeholders. ▪ The communication strategy should be piloted and tested ▪ Materials like fliers, internet uploads, articles should be available for use in subsequent phases	Most of the relevant government agencies as well as NGOs, CSOs and CBOs are involved in education and awareness programmes (own funds)	1,200,000	Coordination among all stakeholders CBD Focal Point National and Local media outlets for piloting and testing material	2015-2025
Objective 2: Implement a public media communication strategy on biodiversity conservation Activities:: ▪ Organize public media outreaches on radio – design educational materials and broadcast ▪ Organize public media outreaches on radio – design educational materials and broadcast ▪ Organise press conferences as well education for environmental journalists	NEMA, UNCST, NGOs/SCOs	1,600,000	Staff in information and education sections, Biodiversity conservation experts Printing, stationery and media coverage	2015-2025

Goal: Public awareness on biodiversity promoted and implemented				
	Responsibility	**Funds $/ year**	**Human & other resources**	**Timeline**
Objective 3: Implement awareness on biodiversity conservation at local government level Activities: • Develop public awareness programme • Implement public awareness programme	NEMA, DLGs, MWE, UWA, NFA, UNCST, NGOs/CSOs	4,480,000	District Local Government – Natural Resources and Production Departments	2016 – 2025
Total		**7,280,000**		

6.11 Action plan for progress made in the area of biotechnology and biosafety

Resources will be mobilized to implement the national biotechnology and biosafety policy and upcoming legislation and regulations. The need for biotechnology and biosafety regulation is important to ensure consideration of feelings of the general public, while at the same time provide appropriate technology solutions to overcome livelihoods challenges and health challenges, among others.

Implementation of Biotechnology and Biosafety				
	Responsibility	**Funds required $/ year**	**Human & other resources**	**Timeline**
Objective: implementation of National Policy on Biotechnology and Biosafety in April 2008; Activities: • Maintenance of focal point • Set up National Biosafety Committee (NBC) and technical recruitment of staff • Operational functions NBC monitoring compliance	NAFORRI/ NARO MAAIF	600,000 400,000 1,200,000	Focal Point Supported by Programme Assistant Office space	2015 – 2025 2015-2025 20015-2025
Total		**2,200,000**		

6.12 Action plan for thematic programme of work on inland water biodiversity

Uganda's surface water systems occupy nearly one-fifth of the country's surface area, numerous livelihoods are based on fisheries and water travel, and water used in urban areas and industry is largely abstracted from the surface water systems. The biodiversity of the inland water systems leads to provision of fish, nutrition for the fish as well as pollution mitigation. Given the importance of inland water systems an allocation has been provides in the action plan summary below.

Goal: Programme of work on Inland Water Biodiversity				
	Responsibility	**Funds required $/ year**	**Human & other resources**	**Timeline**
Objective: Develop & Implement programme to complement current independent efforts on biodiversity conservation in aquatic systems Activities: • Develop programme Build capacity to generate information on biodiversity conservation for aquatic systems & Education programmes Compliance efficiency against illegal fishing Research on fisheries biodiversity (NaFIRRI)	NAFIRRI MAAIF/Dept. Fisheries Resources Directorate of Water Resources Management, NEMA, wetlands Management Department	1,000,000 1,000,000 6,000,000 6,000,000	A programme officer at the Dept. of Fisheries Resources/ MAAIF	2015-2025 2016-2025 2016-2025 2016 – 2025
Total		**14,000,000**		

6.13 Action plan for programme of work on agro-biodiversity

About 80% of Ugandans derive their primary livelihoods from agriculture, while 66% of the workforce is employed in agriculture. At the other extreme poor management of agro-ecosystems is the leading source of environmental degradation in the country. Biodiversity is lost as agro-ecosystems are degraded. Therefore, efforts are needed to provide additional and adequate resources to stakeholders for biodiversity conservation in the country.

Programme of work on Agro-biodiversity				
	Responsibility	**Funds $/year**	**Other resources**	**Timeline**
Objective 1: Identification, monitoring and assessment, and indicators Activities: • Investment into infrastructure and capacity building for local governments and national stakeholders • Operational costs	MAAIF NARO NEMA Makerere & other Universities MOLG District Local governments	11,200,000	A focal person and programme assistant on biodiversity conservation for agro-eco-systems	2015 – 2025
Objective 2: Biological diversity of dry and sub-humid lands Activities: • Feasibility of investment, investment guides and pilot initiatives	MAAIF NARO NEMA Makerere & other Universities MOLG & DLGs	4,800,000	A focal person and programme assistant on biodiversity conservation for grasslands	2015 – 2025
Objective 3: Policy diagnosis (2 years) Analysis of farmer land use and policy Removal of reverse subsidies/ replace Policy harmonsation	MAAIF, NEMA, MWE, Wetland Department, MoLG	300,000 2,000,000 500,000	Office space Consultants technical staff time	2015-2016 2016-2015 2016-2015
Sub total		**2,800,000**		
Objective 4: Support implementation of agro-biodiversity enterprises Activities Capacity building for District farmers associations Value chain analyses and support Support incentives and disincentives within existing policy and regulatory frameworks	MAAIF DLGs NARO NEMA Makerere & other Universities MOLG	35,600,000		2015 – 2025
Total		**54,400,000**		

6.14 Action plan for mountain biodiversity management

Uganda's mountain ecosystems are one of the most neglected in the country. There are largely no management plans and the obligations of District Local Governments (DLGs) to support NEMA in mountain ecosystem management are limited by low prioritization and local resources. Therefore, it is envisaged that the resources mobilized will be crucial in initiative more intensive mountain ecosystem management.

Mountain Biodiversity				
	Responsibility	**Funds $/year**	**Other resources**	**Timeline**
Implementation of Mountainous and Hilly Areas Management Regulations: support District Councils regularly make by-laws for three major mountains Elgon, Ruwenzori & Virunga mountains and the main 15 Mt. ranges: • Identifying hilly areas at risk of environmental degradation and taking appropriate measures. 15 Mt. ranges plans, by-laws, management committees and implementation Investment $200,000/ Mt. Range • Operational 100,000/year	NEMA District Local Government UWA NFA NGOs and CSOs	9,000,000	A programme assistant for biodiversity in Hilly Areas International and national conservation experts, universities	2015 – 2025
Total		**9,000,000**		

6.15 Action plan for biodiversity and climate change

The synergies between biodiversity conservation and climate change actions are clear under the Rio MEAs; however, they are not often very clear at national and project implementation level. The need to mainstream biodiversity in NAPs and NAMA processes should be addressed at this crucial stage as new financing mechanisms for climate change are being lined-up.

Biodiversity and Climate Change				
	Responsibility	**Funds $/year**	**Other resources**	**Timeline**
Objective 1: mainstreaming biodiversity conservation in adaptation plans and programmes Activities ▪ Establish a discussion platform on biodiversity and the National Adaptation Plans	Meteorology Department **Climate Change Unit** MWE/ NEMA District Local Government	4,000,000	A desk officer with additional responsibilities Office space	2015 – 2025
Objective 1: mainstreaming biodiversity conservation in mitigation actions and plans Activities ▪ Enhance engagement with REDD plus process ▪ Engagement with the NAMAs ▪ Enhance engagement with existing voluntary and CDM carbon projects	Meteorology Department **Climate Change Unit** MWE/ NEMA District Local Government	3,000,000	Office space Experts Engagement government stakeholders, DLGs, NGOs, CSOs, CBOs Explore working with new standards	2015 – 2025
		6,000,000		

6.16 Action plan for impact assessment for biodiversity conservation

Proper impacts assessment will be essential to allowing for use of certain innovative financing mechanisms such as biodiversity offsets and environmental fiscal reforms to implement biodiversity conservation in the country. The basic investments needed are in the capacity of the regulators and capacity of practitioners. Effort is needed to provide information to project developers about the options for biodiversity loss mitigation.

Goal: Implementation of national regulations on EIAs and audits components on biodiversity conservation				
	Responsibility	**Funds $/year**	**Other resources**	**Timeline**
Objective: implement biodiversity component in Environmental Impact assessments and Audits Activities: • Review and improve current guidelines • Capacity building to show values of biodiversity in EIAs and Audits • Undertake independent biodiversity monitoring to assess compliance of EIAs • Capacity building for EIA practitioners • Information and awareness materials for Lead Agencies, public and District Local Governments, project developers • Piloting measures	**NEMA,** UWA, NFA, MAAIF, District LGs EIA Practitioners Focal Points for Biodiversity Conservation	600,000 400,000 400,000 1.200,000 400,000	No additional office space and existing staff	2015-2025
Total		**2,920,000**		

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ANNEXES

Annex I: Aichi Biodiversity Targets

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Target 1 By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2 By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3 By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.

Target 4 By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

*Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable us*e

Target 5 By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6 By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7 By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8 By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9 By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10 By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 11 By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Target 12 By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13 By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 14 By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15 By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16 By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Target 17 By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18 By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Target 19 By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20 By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.

Annex II: Global Environment Facility support for biodiversity conservation & other environment management projects

GEF-5 Allocation and Utilization Summary (All amounts in US$)

Focal Area	STAR GEF-5 Indicative allocation	Allocation utilized	PIFs cleared by CEO awaiting approval	Allocations remaining to be programmed
Biodiversity	3,830,000	3,830,000	0	0
Climate Change	4,640,000	3,821,000	0	819,000
Land Degradation	2,220,000	1,210,000	0	1,010,000
Total	10,690,000	8,861,000	0	1,829,000

All focal areas are still within budget for Uganda (GEF 5 2010 – 2014).

GEF-4 Allocation and Utilization Summary (All amounts in US$)

Focal Area	GEF-4 Indicative Allocation*	Allocation Utilized	PIFs cleared by CEO awaiting approval	Allocations remaining to be programmed
Biodiversity	3,900,000	2,402,500	0	1,497,500
Climate Change	3,200,000	2,516,400	0	683,601

* Individual Allocation Countries (Biodiversity & Climate Change) The indicative allocations for all countries were recalculated at the midpoint of GEF-4, as per Council decision, and these revised amounts and other details of the reallocation are available here. Individual allocation countries can access up to their revised indicative allocation, within the limits of available funding. GEF 4: 2006 - 2010

Annex III: COP 10 Decision X/3

X/3. Strategy for resource mobilization in support of the achievement of the Convention's three objectives

A. *Concrete activities and initiatives including measurable targets and/or indicators to achieve the strategic goals contained in the strategy for resource mobilization and on indicators to monitor the implementation of the Strategy*

The Conference of the Parties,

Recalling the strategy for resource mobilization in support of the achievement of the Convention's objectives adopted in decision IX/11 B,

Having considered recommendation 3/8 of the third meeting of the Ad Hoc Open-ended Working Group on the Review of Implementation of the Convention,

Reaffirming the commitment of Parties to meet the obligations set out in the provisions of Article 20 of the Convention and in accordance with the Rio Principles,

Emphasizing that any new and innovative funding mechanisms are supplementary and do not replace the financial mechanisms established under the provisions of Article 21 of the Convention,

Bearing in mind the Strategic Plan for Biodiversity 2011-2020,

1.Invites Parties that have not done so to appoint a "resource mobilization focal point" to facilitate national implementation of the strategy for resource mobilization;

2.Reiterates that national implementation of the strategy for resource mobilization should include, as appropriate, the design and dissemination of a country-specific resource mobilization strategy, with the involvement of key stakeholders, in the framework of updated national biodiversity strategy and action plans;

3.Requests the Executive Secretary, subject to the availability of resources, to organize regional and sub-regional workshops to assist with the development of country-specific resource mobilization strategies, including for indigenous and local communities, as part of the process of updating national biodiversity strategy and action plans, to promote exchange of experience and good practice in financing for biological diversity, and to facilitate the national monitoring of the outcomes of country specific resource mobilization strategies;

4.Requests the Global Environment Facility to provide timely and adequate financial support for updating national biodiversity strategies and action plans, which may include the development of country-specific resource mobilization strategies;

5.Decides that the global monitoring reports on the implementation of the strategy for resource mobilization should be prepared in time for consideration by the Conference of the Parties at its ordinary meetings, with national and regional participation, and should provide essential information on the status and trends in biodiversity financing and help to disseminate funding knowledge and know-how as related to biodiversity;

6.Requests the Executive Secretary, within available resources, to undertake concrete activities and initiatives to achieve the strategic goals of the strategy for resource mobilization, which could include, *inter alia*, the following:

*(a)*Periodic global monitoring reports on the implementation of the strategy for resource mobilization;

*(b)*Regional or sub-regional workshops to assess funding needs and identify gaps and priorities;

*(c)*Global support to the development of national financial plans for biodiversity;

*(d)*Continuation of the Development and Biodiversity Initiative;

*(e)*Further activities on new and innovative financial mechanisms;

*(f)*Training for resource mobilization focal points;

*(g)*Global forums on biodiversity and associated ecosystem services;

7.Adopts the following indicators for monitoring the implementation of the strategy for resource mobilization, based on its mission and eight goals:

*(1)*Aggregated financial flows, in the amount and where relevant percentage, of biodiversity-related funding, per annum, for achieving the Convention's three objectives, in a manner that avoids double counting, both in total and in, *inter alia*, the following categories:

*(a)*Official Development Assistance (ODA);

*(b)*Domestic budgets at all levels;

*(c)*Private sector;

*(d)*Non-governmental organizations, foundations, and academia;

*(e)*International financial institutions;

*(f)*United Nations organizations, funds and programmes;

*(g)*Non-ODA public funding;

*(h)*South-South cooperation initiatives;

*(i)*Technical cooperation;

*(2)*Number of countries that have:

*(a)*Assessed values of biodiversity, in accordance with the Convention;

*(b)*Identified and reported funding needs, gaps and priorities;

*(c)*Developed national financial plans for biodiversity;

*(d)*Been provided with the necessary funding and capacity-building to undertake the above activities;

*(3)*Amount of domestic financial support, per annum, in respect of those domestic activities which are intended to achieve the objectives of this Convention;

*(4)*Amount of funding provided through the Global Environment Facility and allocated to biodiversity focal area;

*(5)*Level of CBD and Parties' support to other financial institutions that promote replication and scaling-up of relevant successful financial mechanisms and instruments;

*(6)*Number of international financing institutions, United Nations organizations, funds and programmes, and the development agencies that report to the Development Assistance Committee of Organisation for Economic Co-operation and Development (OECD/DAC), with biodiversity and associated ecosystem services as a cross-cutting policy;

*(7)*Number of Parties that integrate considerations on biological diversity and its associated ecosystem services in development plans, strategies and budgets;

*(8)*Number of South-South cooperation initiatives conducted by developing country Parties and those that may be supported by other Parties and relevant partners, as a complement to necessary North-South cooperation;

*(9)*Amount and number of South-South and North-South technical cooperation and capacity-building initiatives that support biodiversity;

*(10)*Number of global initiatives that heighten awareness on the need for resource mobilization for biodiversity;

*(11)*Amount of financial resources from all sources from developed countries to developing countries to contribute to achieving the Convention's objectives;

*(12)*Amount of financial resources from all sources from developed countries to developing countries towards the implementation of the Strategic Plan for Biodiversity 2011-2020;

*(13)*Resources mobilized from the removal, reform or phase-out of incentives, including subsidies, harmful to biodiversity, which could be used for the promotion of positive incentives, including but not limited to innovative financial mechanisms, that are consistent and in harmony with the Convention and other international obligations, taking into account national social and economic conditions;

*(14)*Number of initiatives, and respective amounts, supplementary to the financial mechanism established under Article 21, that engage Parties and relevant organizations in new and innovative financial mechanisms, which consider intrinsic values and all other values of biodiversity, in accordance with the objectives of the Convention and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization;

*(15)*Number of access and benefit-sharing initiatives and mechanisms, consistent with the Convention and, when in effect, with the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising out of Their Utilization, including awareness-raising, that enhance resource mobilization;

8.Committed to substantially increasing resources (financial, human and technical) from all sources, including innovative financial mechanisms, balanced with the effective implementation of the Convention on Biological Diversity and its Strategic Plan for Biodiversity 2011-2020, against an established baseline:

*(a)*Invites Parties and other Governments to implement the indicators set out in paragraph 7 and associated targets following collection of information from the Parties and advice of the Executive Secretary to the Conference of the Parties at its eleventh meeting, consistent with

target 20 of the Strategic Plan for Biodiversity 2011-2020, in accordance with the process below;

*(b)*Invites Parties, other Governments and levels of governments, relevant international organizations, and civil-society organizations, in response to the indicators contained in paragraph 7 above and other information pertinent to the indicators, to submit information not later than 30 June 2011 for the Executive Secretary to compile and present a synthesis of this information;

*(c)*Invites Parties, relevant organizations and initiatives, such as the World People's Conference on Climate Change and the Right of Mother Earth, to submit information concerning innovative financial mechanisms that have potential to generate new and additional financial resources as well as possible problems that could undermine achievement of the Convention's three objectives, not later than 30 June 2011, for the Executive Secretary to compile and present a synthesis of this information;

*(d)*Requests the Executive Secretary to compile information from all sources, including but not limited to the Biodiversity Indicator Partnership, to give methodological guidance to the above indicators, including collaborating with the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD/DAC) and informed by the work of the ad hoc technical expert group on indicators for the Strategic Plan for Biodiversity 2011-2020;

*(e)*Requests the Executive Secretary to provide guidelines to the Parties during 2011 for the implementation of this methodology on the application of indicators and establishment of a baseline year;

*(f)*Invites Parties to apply the methodology during 2011-2012 to measure gaps and needs as well as progress in the increase in, and mobilization of, resources against the indicators set out in paragraph 7 of the present decision, using the baseline year established above;

*(g)*Invites Parties to present relevant information to the Secretariat in a timely manner;

*(h)*Requests the Executive Secretary to compile and consolidate information from all relevant sources, and on this, determine baselines to be presented to the Conference of the Parties at its eleventh meeting for agreement by the Parties;

*(i)*Decides to adopt targets at its eleventh meeting, provided that robust baselines have been identified and endorsed and that an effective reporting framework has been adopted. This will allow progress towards the targets set out in this decision and towards target 20 of the Strategic Plan, including an effective reporting framework, to be used in assessing the information provided by Parties as outlined in this decision for the consideration of the Conference of the Parties at its eleventh meeting;

9.Considers the following for the development of targets:

*(a)*Increase the annual international financial flows by 2020 to partner countries to contribute to achieving the Convention's three objectives.

*(b)*All Parties provided with adequate financial resources, will have, by 2015:

*(i)*Reported funding needs, gaps and priorities;

*(ii)*Assessed and/or evaluated the intrinsic value, ecological, genetic, social economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components;

*(iii)*Prepared national financial plans for biodiversity;

*(c)*Increase the number of initiatives for the removal, reform or phase-out of incentives, including subsidies harmful to biodiversity, which could be used for the promotion of positive incentives that are consistent and in harmony with the Convention and other international obligations;

10.Invites Parties to submit, through the Executive Secretary, information to the Working Group on Review of Implementation regarding their views about the basis upon which targets are to be adopted at eleventh meeting of the Conference of the Parties;

11.Recognizing that many developing countries have undertaken analyses of the values of their biodiversity and are working to close the financial gap to effectively conserve their biological resources, invites Parties to share their experiences and lessons learned, and calls upon developed countries to respond to the needs identified, and to create enabling conditions for those countries yet to undertake such analyses to identify their respective needs.

12.Invites the Development Assistance Committee of the Organisation for Economic Co-operation and Development to revisit the Rio Markers with a view to provide methodological guidance and coherence in support of paragraph 7, indicator 1 (a);

13.Notes with appreciation the "Policy statement on the integration of biodiversity and its associated ecosystem services into development co-operation" by the Development Assistance Committee of the Organisation for Economic Co-operation and Development at its senior-level meeting on 15 April 2010;

14.Stresses the importance of mobilizing the necessary resources for mainstreaming biodiversity in national strategies for sustainable development and poverty reduction strategies in order to integrate biodiversity better in the national, regional and local decision-making processes, in the light of this strategy for resource mobilization;

15.Invites donor Parties to provide timely and adequate financial support to the realization of the concrete activities and initiatives to achieve the strategic goals of the strategy for resource mobilization.

B. *Review of implementation of the Convention's strategy for resource mobilization (goals 1, 3 and 4, as well as goals 6 and 8)*

The Conference of the Parties [to the Convention on Biological Diversity]

1.Takes note of the note pertinent to goals 1, 3 and 4 as well as goals 6 and 8 of the resource mobilization strategy in support of the achievement of the Convention's three objectives, prepared by the Executive Secretary, in accordance with paragraph 5 of decision IX/11 B;

2.Decides to continue the review of implementation of goals 1, 3 and 4 as well as goals 6 and 8 of the Convention's strategy for resource mobilization at the twelfth meeting of the Conference of the Parties, in accordance with decision IX/11 B;

3.Requests the Ad Hoc Open-ended Working Group on the Review of Implementation of the Convention at its fourth meeting, with support of the Executive Secretary, to prepare for reviews of implementation of the Convention's strategy for resource mobilization to be undertaken by the eleventh meeting of the Conference of the Parties, in accordance with decision IX/11 B;

4.Invites Parties and relevant organizations to submit views, information and experience on the implementation of the Strategy for Resource Mobilization, and requests the Executive Secretary to prepare a compilation of the information received for consideration by the Ad Hoc Open-ended Working Group on Review of Implementation of the Convention at its fourth meeting.

Annex IV: Select donor funded biodiversity conservation-related projects, 2009 -2014

NDP Sector	Name of Intervention	implementation Agency	Key Objectives and activities	Year	Donors	Amount$
Forestry	Farm Income Enhancement and Forest Conservation Project	Ministry Of Water & Environment	Forestry Support including Community Watershed Management and Tree Planting and Agricultural Enterprise Development	End 2012	Bilateral - AfDB	62.1
Forestry	Sawlog Production Grant Scheme	NFA/MWE	Support to private sector tree planting for timber	End 2012	Multilateral European Commission	19.3
Environment	Mt. Elgon Region Environment Conservation	NEMA/Min of Environment	Conservation of the vulnerable Mt Elgon Region	Ended 2011	Bilateral DFID	9.2
Environment	Conservation of Biodiversity in the Albertine Rift Forests of Uganda	Ministry of Environment	Conserve and manage rich biodiversity forests in the Albertine Rift of Uganda, allowing sustainable development for all stakeholders.	Ended 2011	Bilateral - UNDP	3.4
Environment	Extending protected areas through community based initiatives (COBWEB)	International Union for Conservation of Nature (IUCN)	To strengthen the Ugandan National Protected Area (PA) network by expanding the coverage of the PA network to include the country's biologically important wetland ecosystems. The project will develop, pilot, and adapt suitable PA management paradigms in two representative wetland systems adjacent to two terrestrial protected area networks.	Ended 2011	Bilateral - UNDP	1.0

NDP Sector	Name of Intervention	implementation Agency	Key Objectives and activities	Year	Donors	Amount$
Environment	Enabling environment for SLM to overcome land degradation in the cattle corridor of Uganda	Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)	The objective of the project is to provide land users and managers with the enabling policy, institutional and capacity environment for effective adoption of SLM within the complexity of the cattle corridor production system, achieved through 3 major outcomes plus a project management component.	2014	Bilateral - UNDP	2.2
Environment	Territorial Approach to Climate change project (TACC)	Mbale District Local Government	This project will assist the Mbale region of Uganda, encompassing the three districts of Mbale, Manafwa and Bududa, to realize low carbon and climate change resilient development. Towards this objective, the project will assist the Mbale region to develop their Integrated Territorial Climate Plan (ITCP), to fully integrate climate change adaptation and mitigation strategies into their regional development planning;	Ended 2012	Bilateral – UNDP/ DFID/ Welsh Assembly Government	0.8
Tourism	Wildlife, Landscapes and Development for Conservation (WILD)	Wildlife Conservation Society	(1) Biodiversity Management; (2) Environmental Education and Communication; (3) Property Rights and Resource Governance; and (4) Improved Livelihoods.	Ended 2010	Bilateral - WILD	4.8
Tourism	Sustainable Tourism in the Albertine Rift (STAR)	WCS, AWF; Global Sustainable Tourism Alliance	(1) Conserve Mountain Gorilla habitat and Northern Albertine Rift	Ended 2010	Bilateral - USAID	6.8
Environment	Environmental Management and Capacity Building II Additional	National Management Authority	To support sustainable management of environmental and natural resources at the national, district, and community levels.	Ended 2011	Bilateral – World Bank	15.0

NDP Sector	Name of Intervention	implementation Agency	Key Objectives and activities	Year	Donors	Amount$
Environment	Protected Areas Management and Sustainable Use Project	UWA/Min of Tourism	Ensure effective long term conservation of Uganda's biodiversity through sustainable and cost effective management of its wildlife and cultural resources.	Ended 2010	Bilateral – World Bank	27
Environment	GEF: Protected Areas Management and Sustainable Use Project	UWA/Min of Tourism	Ensure effective long term conservation of Uganda's biodiversity through sustainable and cost effective management of its wildlife and cultural resources.	Ended 2010	Bilateral – World Bank	8.0
Environment	Second Environmental Management and Capacity Building	Ministry Of Water, Lands And Environment	To support sustainable management of environmental and natural resources at the national, district, and community levels.	Ended 2010	Bilateral – World Bank	37

Source: MFPED 2013

Annex V: Key informant interview instrument for developing financing guidelines and action plans for biodiversity conservation in Uganda

INSTRUMENT NO: ..... DATE: .....

A. INTRODUCTION

Interviewer Name or Code: .....

Interviewee Name: .....

Stakeholder organisation: ..... Position: .....

1. STAKEHOLDER ANALYSIS

1.1 What is the role of your organisation in biodiversity conservation in Uganda?

Primary roles	Secondary roles	Roles with regard to financing biodiversity conservation

1.2 What is the nature or your relationship(s) with other organisations/institutions engaged in biodiversity conservation in Uganda?

Other organisations/ institutions	Nature of relationship	Relationships associated with financing biodiversity conservation

2. FUNDING FOR BIODIVERSITY CONSERVATION AND RELATED ACTIVITIES

2.1 Please complete table below on, biodiversity conservation activities in your organisation /institution's work plan, over the last 5 years, budgets and amounts received

Year	List of budgeted activities	Budgeted amount	Amount received	Budget shortfall/ excess
1				
2				
3				
4				
5				

2.2 Where there was a shortfall, excess or adequate amounts, for budgeted activities above,

state the reasons why?

Activities	Reasons for shortfall (inadequate resources)	Reasons for adequate or excess resources
1.		
2.		
3.		
4.		
5.		

3. STRATEGIES FOR RAISING FUNDS

3.1 What strategies does your organisation use to raise funds for biodiversity conservation? Have these strategies worked (yes/no), and reasons why they have worked?

Strategies	Worked=yes(1)/no(2)	Reasons why?
1.		
2.		
3.		
4.		
5.		
6.		

3.2 What are the alternative strategies that your organisation is proposing u to use to raise more or adequate resources for biodiversity conservation?

Strategy	Amount expected	Reasons for choosing strategy
1.		
2.		
3.		
4.		
5.		

4. BARRIERS TO RAISING FUNDS FOR BIODIVERSITY CONSEERVATION

4.1 What are the barriers to raising adequate financing for biodiversity conservation and what are your suggestions to overcoming these barriers?

Barriers	Description of barriers	Suggestion on overcoming barriers
1. Knowledge		
2. Human resource/ skills		
3. Policy or regulatory barriers		
4. Institutional arrangements		
5. Governance barriers		
6. Requirement of investment capital and/or large operational costs		
7. Others		

5. GOVERNANCE AND ACCOUNTABILITY

5.1 Describe the organisational structure of the institution or organisation you represent, and highlight, avenues for oversight over finance and/or performance, especially for biodiversity conservation activities?

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.....

5.2 What is the status of public finance management in relation to government oversight, and/or donor oversight over your programme activities?

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.....
.....

5.3 What mechanisms exist within your organisation to show that resources meant for biodiversity conservation are used only for biodiversity conservation activities?

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.....

5.4 How regularly does the organisation undertake internal and external financial and performances audits and which authorities are responsible for verifying these audits?

Internal audits: .....

External audits: .....

Verifying authority (ies): .....

.....

5.5 If the current governance and accountability mechanisms are inadequate, what steps are in place to ensure that these are improved upon?

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