



**GAP ANALYSIS OF THE  
LEGAL AND POLICY FRAMEWORK FOR DELIVERY OF NO NET LOSS (OR NET GAIN) OF  
BIODIVERSITY IN UGANDA**



**FINAL REPORT**  
**(June 2017)**

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## ACRONYMS

BBOP	Business and Biodiversity Offset Programme
CBD	Convention on Biological Diversity
CFR	Central Forest Reserve
COMBO	Conservation, impact Mitigation and Biodiversity Offsets in Africa Project
EIA	Environmental Impact Assessment
EU	European Union
IUCN	International Union for the conservation of Nature and Natural Resources – The World Conservation Union
LFR	Local Forest Reserves
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MDA	Ministries, Departments and Agencies
MEMD	Ministry of Energy and Mineral Development
MWE	Ministry of Water and Environment
NDP	National Development Plan
NEA	National Environment Act
NEMA	National Environment Management Authority
NFA	National Forestry Authority
NFTPA	National Forestry and Tree Planting Act
NG	Net Gain
NNL	No Net Loss
NP	National Park
NWSC	National Water and Sewerage corporation
PFE	Permanent Forest Estate
PFO	Private Forest Owner
SEA	Strategic Environmental Assessment
UWA	Uganda Wildlife Authority
WCS	Wildlife Conservation Society
WMD	Wetland Management Department
WR	Wildlife Reserve

## EXECUTIVE SUMMARY

This report is a synthesis of the current legal and policy framework in Uganda for management of impacts on biodiversity from project development and identifies gaps that we recommend should be plugged to support effective implementation of the mitigation hierarchy to reduce impacts. Rigorous implementation of the biodiversity mitigation hierarchy (MH): i.e. avoid, minimize, restore and offset for projects' impacts on biodiversity towards goals of No Net Loss or Net Gain (NNL/NG) of biodiversity in areas where development projects are implemented, is now being promoted as a strategy to address the need to reduce biodiversity loss that may result from project developments. Some countries have an enabling legal and policy framework to support this, while others do not and are progressively developing them. A global standard on the mitigation hierarchy, including biodiversity offsets, was developed in 2012 by the Business and Biodiversity Offsets Programme (BBOP), along with related guidance in the International Finance Corporation's Performance Standard 6. Uganda would benefit from adopting the principles in these standards which would help stem biodiversity loss as part of an enabling policy and legislative framework.

This report is an initial step for assessing policy and legal provisions in Uganda and making recommendations for a way forward regarding effective implementation of the mitigation hierarchy, particularly with regard to biodiversity offsets. This study was largely undertaken through extensive literature review and key informant interviews. The stakeholders consulted included representatives of the civil society, Government agencies, legal practitioners, research institutions, EIA practitioners and the academia.

After examining the existing policy and legislative framework, this study notes that, except section 2.5(f) of the Uganda wildlife policy (2014) which is also not specific enough, there is no provision in Uganda's existing policies or principal legislation that explicitly requires NNL/NG or implementation of the MH. Nevertheless, the EIA Regulations and the different EIA Sectoral Guidelines such as the EIA Guidelines for Road Projects 2004 and EIA Guidelines for Water Resources-related projects 2011 contain explicit statements which, taken together, imply a requirement to implement the MH and ensure NNL/NG. The major challenge is that Guidelines do not have the force of law and regulations can be changed anytime by the relevant Minister without Parliamentary oversight and approval. To effectively ensure NNL/NG of biodiversity in Uganda from the legal point of view, it is therefore important that the requirement to implement the MH and ensure NNL/NG is firmly explicitly provided for in the principal legislation.

Although Uganda's existing policies and laws do not explicitly require NNL/NG, they are generally supportive and provide a good foundation for introducing reforms to unambiguously require NNL/NG and implementation of the mitigation hierarchy. There are no serious legal or policy provisions that run counter to NNL/NG of biodiversity outcomes. This conclusion notwithstanding, two weaknesses are worth pointing out. First, some of the land tenure systems provided for in the country's land laws are not conducive for NNL/NG. This is especially true of customary tenure and *mailo* land tenure. The former is not settled tenure and can be converted anytime. The latter allows for double rights to exist on the same land and permits the separation of ownership of land from ownership of developments on land made by a lawful and bona fide occupant. Under these kind of tenure, applying the mitigation hierarchy including offsets is difficult, because of the uncertainty of tenure. Second, Uganda's laws and policies do not provide any incentive for private land owners to ensure NNL/NG of biodiversity in respect of developments on their land.

Arising from the analysis, the study makes a number of recommendations key of which include:

- amending the National Environment Act and the Environmental Impact Assessment Regulations to explicitly require application of the mitigation hierarchy to achieve NNL/NG;
- developing comprehensive guidelines on the mitigation hierarchy and NNL/NG to facilitate the effective implementation of the legal requirements;
- integrating the requirement of NNL/NG in the licenses, concessions and permits system in the relevant sectors;
- establishing an incentive system for private land owners to ensure NNL/NG in respect of developments on their land; and
- integrating the concept of NNL/NG fully in the refundable environmental performance bonds which are required as security to ensure compliance of the law and terms and conditions of licenses and permits.

It is notable that some of the emerging Bills and draft policy frameworks for managing the environment and natural resources are now explicitly providing for the requirement to implement the mitigation hierarchy to ensure NNL/NG of Biodiversity. This is true of the Draft National Environment Management Policy for Uganda (2014), The National Environment Bill 2016 and the Draft National Environment (Environment Assessment) Regulations 2016. If passed in their current form, the provisions in these draft policies and draft laws will go a long way to ensure NNL/NG in Uganda's development process.

Accordingly, this study recommends that there should be an explicit mandatory legal requirement for developers of projects or operators of activities that are likely to cause adverse effects on biodiversity to implement the mitigation hierarchy and ensure NNL/NG. While it is important to have this requirement in the EIA Regulations and Sectoral Guidelines, it is critical that this requirement is first and foremost provided for in the principal environmental legislation. The better approach is to amend the existing National Environment Act and other sectoral laws to include the requirement of NNL/NG. Amendments take little time to effect compared to enacting new legislation altogether. Already the National Environment Bill 2016 and the draft EIA Regulations have provisions to this effect, including this requirement in relevant sectoral laws ensures that NNL/NG gets to be enforced in as many scenarios as possible.

## **1 INTRODUCTION**

This report is a synthesis of the current legal and policy framework in Uganda for biodiversity management and identifies gaps that need to be plugged to provide for effective implementation of the mitigation hierarchy for biodiversity conservation. Management and oversight of Uganda's biodiversity conservation is under various institutions; mainly the Ministries, Departments and Agencies (MDAs) that are focused on natural resources management; the Uganda Wildlife Authority, National Forestry Authority, and, the National Environment Management Authority as the coordinating agency. The country has an elaborate set of legislation for the establishment of the management framework for biodiversity conservation but specific sections of laws to affect the mitigation hierarchy for biodiversity conservation are yet to be operationalized. There are however, good indications that this will soon be addressed following the revision of the National Environment management legislation.

Some countries have an enabling legal and policy framework to support the No Net Loss (NNL) or a Net Gain (NG) of biodiversity in areas where development projects are implemented; while others don't and are progressively developing them. A global standard on biodiversity offsets as part of a mitigation hierarchy was developed in 2012 by the Business and Biodiversity Offsets Programme (BBOP) and Uganda would benefit from using that standard to help stem biodiversity loss if there is adequate enabling policy and legislative framework. The BBOP initiative was in addition to the International Finance Corporation performance Standards (IFC PS6) that have been progressively evolving and have been very useful in assisting countries to mitigate biodiversity loss and promote sustainable development. Performance Standard 6 specifically covers Biodiversity Conservation and Sustainable Management of Living Natural Resources. While PFC PS6 has been utilized by funding organizations to require countries to apply the MH, many countries are moving towards operationalizing the BBOP standards for biodiversity offsets. Two years ago, thirty-nine countries were known to have laws or policies on NNL/NG, biodiversity offsets or compensation and 22 countries (some of which already have measures in place) were developing them (Ten Kate and Crowe, 2014). Lessons will be borrowed from these countries in developing suggestions for any legislative review in Uganda.

It is clear and also mentioned elsewhere in the documentation on the COMBO project that Uganda is undergoing rapid development and there are various investment projects across the country, particularly around the capital city of Kampala and in the west of the country in the Albertine Graben among other areas. Transport infrastructure is being upgraded in many areas for relieving urban congestion and linking towns and industrial parks. Hydropower capacity is being upgraded to meet new development needs such as the Isimba and Karuma Projects on the River Nile. Exploration for oil & gas across the west of the country has indicated commercially viable reserves and production will be implemented soon. A pipeline is planned to export this oil to the coast through Tanzania. There is increasing demand for commercial agriculture such as sugar cane in Mid-western and Northern Uganda, maize growing in the central region, and livestock ranching in the Karamoja region. Uganda's population already exerts a high demand on natural resources, including the need for charcoal, fisheries, timber and bush-meat, and; the population is growing at a rate of >3% per annum. The pressure on biodiversity resources is therefore immense. Mitigation of biodiversity loss is therefore not only necessary but urgent.

### **1.1 Background**

The biodiversity mitigation hierarchy started having prominence with the BBOP discussions. Often times, when developments take place significant displacements may occur both to the social and environmental status of an area including to biodiversity. A rigorous implementation of the biodiversity



mitigation hierarchy; i.e. avoid, minimize, restore and compensate for projects' impacts on biodiversity, is now being promoted as a strategy to address the need to reduce biodiversity loss that may result from project developments. The mitigation hierarchy is a sequence of steps, starting with avoidance of impacts, minimization of inevitable impacts, on-site restoration and finally biodiversity offsets to achieve NNL/NG in biodiversity. Biodiversity offsetting is at the tail end of the hierarchy and offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project developments.

Since 2004 a number of initiatives mostly at international and intergovernmental levels have sought to address the issue of avoiding biodiversity loss in case of any developments and there is now substantial guidance given including a standard on biodiversity offsets. There has been a recent effort to encourage countries to domesticate adherence to the standards including encouraging them to develop specific legal and policy frameworks as part of an enabling environment to promote a no-net loss of biodiversity. At the international level, the BBOP; (a consortium of now over 80 governments, NGOs, private sector organizations etc...), the convention on Biological diversity (CBD), the EU no-net loss initiative during 2010-2015, and, IUCN's work on biodiversity offsets from 2012 to-date have made tremendous contributions to the process of ensuring *"effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being, and poverty eradication"*<sup>1</sup>

Interest in ensuring NNL/NG is growing internationally and countries are progressively reviewing their legislative frameworks to provide for more effective protection of biodiversity. Where the policy framework is adequate, efforts are on improving the rigor with which the mitigation hierarchy is applied, and in using biodiversity offsets to address residual impacts (which were generally left uncompensated in most planning processes). Where the policy and legal framework is inadequate, governments are encouraged to introduce NNL/NG policy, including the use of biodiversity offsets. This report is the first step, for the case of Uganda, to assess policy and legal provisions and then make recommendations for a way forward regarding effective implementation of the mitigation hierarchy, particularly with regard to biodiversity offsets.

The country has not yet made the mitigation hierarchy for achieving NNL/NG explicitly provided for to ensure that the conservation of biodiversity is commensurate to the threats of development needs. Uganda developed a Vision 2040 to achieve a middle-income status and many developments are planned. The development interventions envisaged by the Vision 2040 would invariably result in residual unavoidable impact on biodiversity resources. Among those which are biodiversity sensitive include: **Infrastructure constructions** (such as standard gauge railway network with high speed trains; multi-lane paved national road network linking major towns, cities and other strategic locations; four international airports); **Lands, housing and urban development** for regional and strategic cities; **Mining** (establishment of a Phosphate industry in Tororo and development of an Iron ore industry in Muko, Kabale); **Energy** (e.g. plans for nuclear power and hydro power plants and Oil Refinery and associated pipeline infrastructure) and **Agriculture** that is targeting construction of large irrigation schemes.

Conversion and disturbance of natural habitat is inevitable, due to population growth with the resultant pressure on the country's resources for increased agricultural and industrial production, energy supply and domestic water supply. For instance the development of oil and gas industry within the Albertine

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<sup>1</sup> CBD COP X Decision 2 (Strategic Plan for Biodiversity 2011-2020. See <https://www.cbd.int/decision/cop/?id=12268>).

Graben (AG), will affect this most species rich eco-region in Africa. 70% of Uganda's protected areas are in the AG, and the oil and gas exploration areas overlap such area. Sufficient measures have to be put in place to ensure that the oil and gas exploration, production, transport and marketing does not obliterate the biological diversity of the region. The effects of development on biodiversity may be offset through the mitigation hierarchy as well as compensating efforts to protect, restore and enhance natural ecosystems. A clear description of measures for avoidance of impacts including those taken to avoid impacts and risks to highly irreplaceable and/or vulnerable biodiversity, minimization of impacts and establishing biodiversity offsets at this strategic level could put a clear requirement for the developers to ensure no net loss to biodiversity and rather contribute to its enhancement.

The EIA is an important tool in managing the impact of any development project. For large projects, the current practice is to go beyond EIA and also conduct Environment and Social Impact Assessment (ESIA) e.g. the one done for Karuma Hydropower project and now Oil and gas exploration/production. When fully institutionalized in all projects developments, it forms an essential step in reinforcing the use of the mitigation hierarchy. The importance of the strategic Environment Assessments (SEA), the ESIA and the EIA processes should thus be given more prominence by Government in addressing concerns of biodiversity loss. The EIA is operationalized through various regulations such as The National Environment (wetlands, riverbanks and lakeshores management) Regulations (2000) which require permits to be obtained and EIA to be undertaken before undertaking any activities in wetlands, lakeshores and riverbanks. The Environmental Audit Regulations (2006) which specify the auditing procedure, and, The National Environment (conduct and certification of environmental practitioners) regulations (2003) that set minimum standards and criteria for qualification of EIA practitioners. The EIA regulations and the environmental law are currently being revised (in 2016/17), but references to EIA are also made in sectoral policies such as those related to forest, mining, fisheries, energy and petroleum requiring EIA application to certain projects in that sector. NEMA has provided oversight for EIA guidelines in preparation for mining, forestry, fisheries, energy, agriculture, urban planning and infrastructure that were expected to be ready in 2016. There are separate guidelines on EIA for water and roads sector as well developed by the responsible sectoral agencies. Although the Vision 2040 does not specifically demand for developers to undertake an EIA, the sectoral guidelines provide for rules that require to be followed for ensuring compliance.

## **1.2 Objectives**

This assignment was aimed at exploring the extent to which Uganda's legal and policy frameworks require, facilitate or stifle measures for NNL/NG. The assignment is expected to generate legal and policy options for establishing a robust national system on NNL/NG. The main objective of the assignment therefore is to provide recommendations for strengthening the policy and legal frameworks for promoting more effective biodiversity conservation.

The specific objectives included to:

- a) Analyze Uganda's policies and laws to identify the provisions that support and demand for actions that would result in a NNL or at least a NG in biodiversity in case any development initiative is undertaken in a particular area;
- b) Review and analyze the country's policies and laws to identify gaps that limit effective conservation of biodiversity with a special focus on provisions that prohibit or establish obstacles to achieving NNL/NG;
- c) Evaluate the provisions in the environmental impact assessment tools/guidelines for implementing the mitigation hierarchy and their contribution towards achieving the NNL/NG of biodiversity;

- d) Assess the strategies for implementing the mitigation hierarchy in national and sectoral planning frameworks and their contribution towards achieving NNL/NG of biodiversity.
- e) Make legal, policy and other recommendations for establishing and implementing a robust national system for delivery of NNL/NG in biodiversity in Uganda.

## **2 APPROACHES AND DETAILED METHODS**

### **2.1 General Approach**

The general approach to the delivery of this assignment was guided by three major principles:

- A multi-disciplinary team of experts
- Effective stakeholder engagement, and,
- Strong technical oversight and quality assurance.

#### ***a) A multi-disciplinary team of experts***

A multi-disciplinary team of three experts provided a balanced combination of competencies, expertise and experiences in biodiversity management and conservation in particular and natural resource governance in general. The team, with a deep understanding of environment and biodiversity conservation issues in Uganda, vast experience of field level issues; as well as with legal and policy expertise relating to natural resources management reviewed the policy and legal framework for possibilities of effective implementation of the mitigation hierarchy and specifically looking at biodiversity offsets.

#### ***b) Effective stakeholder engagement***

Biodiversity conservation involves a wide range of actors, including Central Government Ministries, Agencies and Departments (responsible for sectors such as environment and natural resources; agriculture; tourism; minerals; oil and gas; works and transport; energy; water; land and housing, etc...); local governments, the private sector and the civil society. The roles of these actors in contributing to the NNL/NG for biodiversity conservation therefore vary. Stakeholder engagement was important for generating robust information. The various stakeholders consulted are listed in Annex 1. Many of these stakeholders are repository of important policies, laws, sectoral strategic plans and other relevant documents. Their participation was important not only in information collection but also in generating their interest in the concepts of biodiversity offsets and the entire mitigation hierarchy. The consultations were also used as an opportunity to raise further awareness of biodiversity offsets and will be important in actualizing implementation of the impact mitigation hierarchy for the conservation of biodiversity. The participation of stakeholders in this review exercise; also in some respects, gave a sense of ownership and insight to the cross-sectoral mitigation hierarchy and importance of biodiversity offsets. The involvement of the stakeholders may also be seen as re-enforcing their commitment and collaboration in implementing any recommendations generated through this assignment.

#### ***c) Strong technical oversight and quality assurance***

Quality assurance has been mainly through discussions with institutions that are responsible for biodiversity management in the country as well through in-house discussions and peer review of draft reports within the implementing team; and discussions of deliverables with the client. The stakeholders' validation meeting is also an avenue to ensure that the priority issues are captured

### **2.2 Detailed Methodology**

The study largely employed qualitative research methods to establish the gaps in the policies and laws for implementing the mitigation hierarchy and achieving the NNL/NG of biodiversity. Data collection entailed both primary and secondary sources. The primary data was derived from interviews of key

informants from relevant Ministries, Departments and Agencies (MDAs), representatives of civil society organizations, research institutions, EIA practitioners and academia. The secondary sources were mainly the review of various documents, especially the policies, laws, regulations, strategic plans, and sectoral guidelines/standards. The main data collection methods were therefore literature review and key informant interviews.

### **2.2.1 Literature Review**

Literature was reviewed on the policy and legal provisions for biodiversity conservation in Uganda, particularly focusing on provisions for environmental and social impact assessments. Both online-based documents and reports retrieved from key informant offices were utilized to enable a robust analysis and evaluation for gaps. The analysis of policies and laws also builds on the desk review of policies and laws conducted earlier by WCS under the COMBO Project<sup>2</sup>.

Annex 3 is a list of important documents and the relevant Ministries, Departments and Agencies (MDAs) from where they have been sourced. An electronic folder has been created of these documents and will be available at the WCS.

### **2.2.2 Key Informant interviews**

One-to-one meetings were arranged for key informants at national level to obtain information on the drivers of NNL/NG for biodiversity and the policy, legal and administrative arrangements for implementing the mitigation hierarchy of biodiversity conservation. A preliminary stakeholders' analysis was initially undertaken to identify the targeted institutions and potential respondents in each of the institutions and consultations were undertaken thereafter. The selection of specific respondents was however guided by the top management of each institution, through purposive sampling technique. The list of respondents is attached as Annex 2. The Guiding questions for discussion during key informant interviews were drafted prior to the meetings and are provided in ANNEX 4.

### **2.2.3 Data Analysis**

The data collected from the various sources was analyzed for gaps in the policy, legal and administrative arrangement for implementing the mitigation hierarchy and contribution to achieving the NNL/NG of biodiversity. The analysis was focused on generating key issues, and, identifying the various provisions of policies, laws and guidelines/standards and the gaps therefrom (Annex 5). The information was then synthesized under relevant thematic areas.

### **2.2.4 Scheduling of the consultancy assignment**

The main tasks for the assignment were undertaken in four phases:

- (i) The production of the Inception Report;
- (ii) Information gathering
- (iii) Drafting of the Report; and
- (iv) Production of Final Report

Figure 1 is a schematic presentation of how the tasks were undertaken.

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<sup>2</sup> Mulondo, Paul (undated, unpublished). Draft Report on Policy, Legal and Institutional Frame Work and Analysis of Gaps for Delivery of No Net Loss (or Net Gain) of Biodiversity in Uganda.

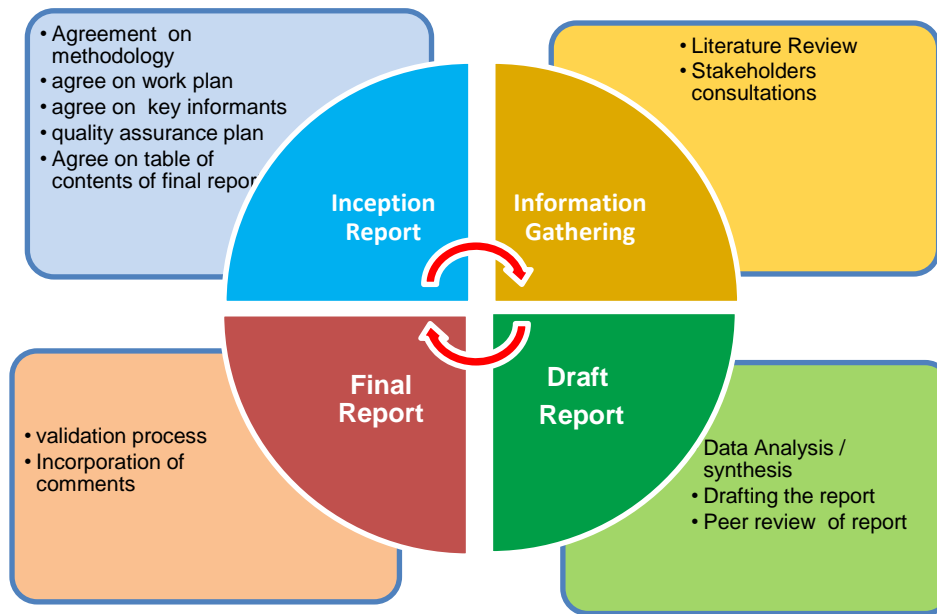


Figure 1: Main Tasks

**(i) Inception Report**

The inception report was developed by the consultants and discussed with the client. This formed the basis of a road map for the assignment. Specifically, the inception provided:

- Approach and methodology;
- The key informants to be interviewed
- The work plan and schedule of activities, and,
- The outline of Table of Contents for the Final Report

**(ii) Information Gathering**

A lot of attention was given to data collection to ensure completeness, accuracy, reliability and validity. Review of documents was a continuous process from inception through the drafting of the report (Annex 5 for a template on approach). This was then followed by the key informant interviews.

**(iii) Draft and Final Reports**

Based on the information collected, consultants synthesized the data according to thematic areas and compiled the report. The draft reports were also enriched by the contributions of peer reviewers and the Stakeholders' Validation Workshop which was held on 22nd February 2017. The comments were appropriately incorporated in this final report.

### **3 OVERVIEW OF POLICY AND LEGAL FRAMEWORK FOR BIODIVERSITY MANAGEMENT IN UGANDA**

Uganda is among those countries endowed with the greatest diversity of animal and plant species. Although Uganda occupies only 2% of the world's area, with a recorded 18,783 species of fauna and flora (NEMA, 2009), the country ranks among the top ten most bio-diverse countries in the world. The biological diversity has been described in terms of gene, species, community and ecosystem levels. The key fauna and flora biodiversity resources in Uganda may be described under the following categories: mammals, birds, fishes, reptiles, amphibians, plants and insects (NEMA, 2016).

Uganda's rich biodiversity is distributed across both terrestrial and aquatic habitats. Most of the biodiversity can be found in natural forests, but a considerable number is also found in other natural ecosystems such as mountains, savannahs, wetlands, lakes and rivers. Agricultural biodiversity on altered man-made ecosystems is also abundant; however great interest is given to biodiversity confined to natural ecosystem because of harboring most of the uncommon or rare species in their more preferred original states. In terms of management, biodiversity resources are scattered in a number of sectors, mainly:

- Forest resources –forests in National Parks (NP) and Wildlife Reserves (WRs) managed by Uganda Wildlife Authority (UWA); central forest reserves (CFRs) managed National Forestry Authority (NFA); local forest reserves (LFR) managed by local governments, private forests managed by private forest owners (PFOs).
- Biodiversity in savannah and mountain ecosystems – largely managed in National Parks and wildlife reserves, or wildlife sanctuaries under UWA.
- Wetland ecosystems – managed by the Wetland Resources Management Department in the Ministry of Water and Environment.
- Fisheries resources – managed under the Directorate of Fisheries Resources in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
- Agricultural biodiversity/Crop resources – managed under the Directorate of Crop Resources, MAAIF

Biodiversity conservation came to the limelight at international level just before and after the 1992 Earth Summit in Rio de Janeiro, whose principle theme was Environment and sustainable development. The United Nations Convention on Biological Diversity was one of the key outcomes of the Conference, which has subsequently shaped the development of policies and laws at national level, including Uganda. The National Focal Point (NFP) for the Convention on Biological Diversity in Uganda is the National Environment Management Authority (NEMA). One of the responsibilities of the NFP is monitoring, promoting and/or facilitating national implementation of the Convention<sup>3</sup>. Therefore, NEMA is directly responsible for the national oversight and coordination of the management of biodiversity in the country. NEMA's mandate in this respect includes, among others.

- Preparation and updating of the National Biodiversity Strategy and Action Plan to guide the management of biodiversity in the country;
- Guidance in mainstreaming biodiversity into sectoral policy and regulatory framework, strategies, plans and programmes;
- Setting National Biodiversity targets;

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<sup>3</sup> Convention on Biological Diversity (2009). Role of the CBD National Focal Point Module A-2 Version 2 – February 2009

- Coordination of Central and local government Ministries, Departments and agencies; private sector, civil society and communities in implementation of biodiversity strategies
- Education, awareness creation and
- Resource mobilization for biodiversity management
- State of the nation reports on biodiversity

Apart from biodiversity conservation and management, it is noted that many sectors impact on biodiversity resources, and often threaten their existence through clearance of the ecosystems or habitats in which they live, or promote unsustainable utilization of such resources. Among the actions with significant impact on biodiversity resources include, among others:

- The Ministry of Works and Transport, which is responsible for infrastructure development, including construction of roads, railways etc.;
- The Ministry of Lands, Housing and Urban Development;
- The Ministry of Energy and Mineral Development, especially the as regards Oil and Gas developments, Mining, Energy; and
- Ministry of Agriculture, Animal Industry and Fisheries.

One of the key emerging challenges for biodiversity has been the recent discovery of oil and gas in the Albertine Graben; and so the Ministry of Energy is a major impacting sector. To ensure the sustainable management of biodiversity, it is important that the impacting sectors are proactively targeted to promote the application of the mitigation hierarchy and ensure no net loss or at least a net gain of biodiversity.

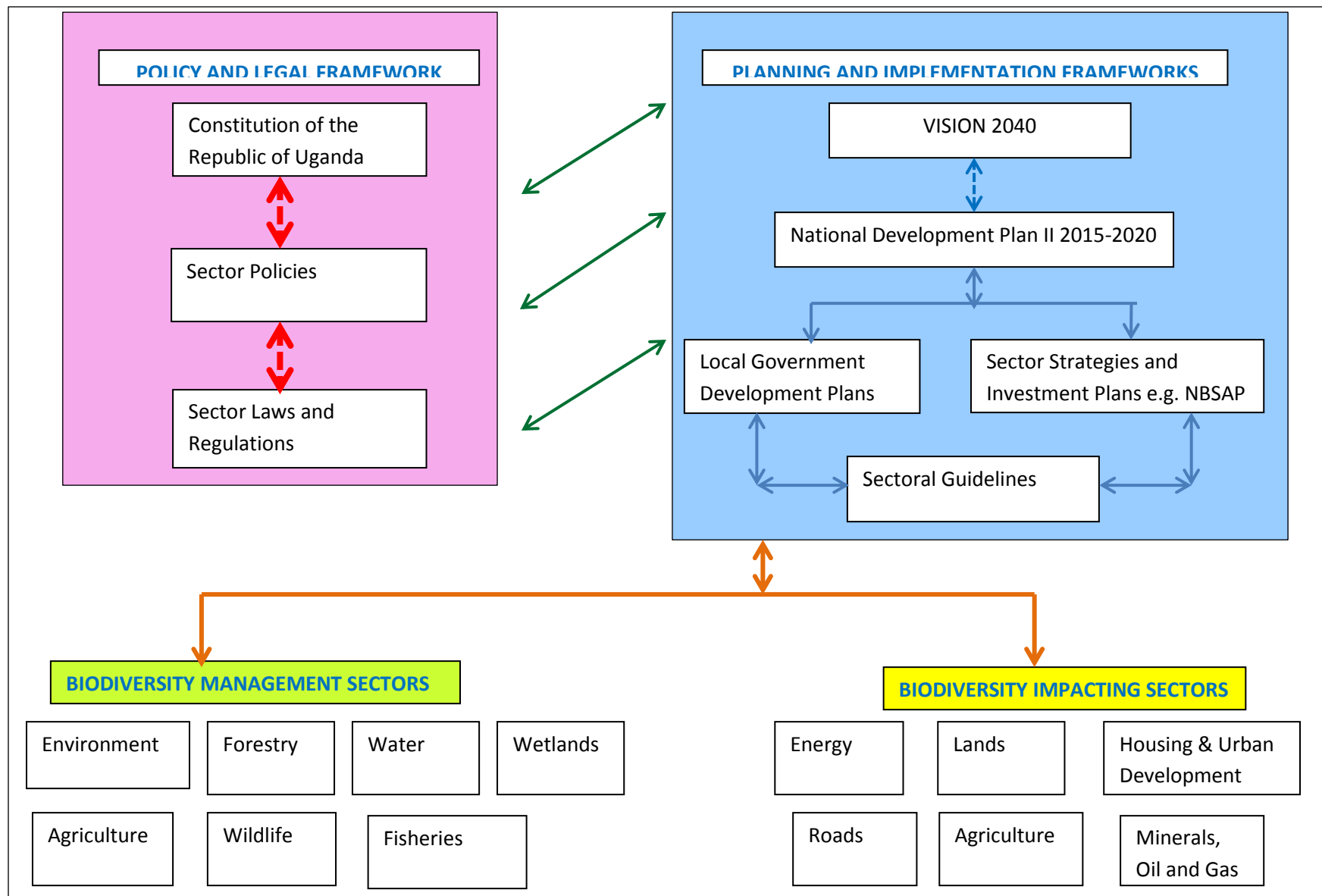
The key National Policy framework for management of biodiversity in Uganda is the National Environment Policy (1994) which is currently under revision. The Policy provides for the institutional structure as well as policy measures for biodiversity management in the country. The specific objectives of the policy are to: (i) Enhance health and quality of life of all Ugandans and promote long-term sustainable economic development through sound environmental and natural resources management and use. (ii) Integrate environmental concerns in all development-oriented policies, planning and activities at national, district and local levels, with participation of the people. (iii) Conserve, preserve and restore ecosystems and maintain ecological processes and life support systems, including conservation of national biodiversity. (iv) Optimize resource use and achieve sustainable level of resource consumption. (v) Raise public awareness to understand and appreciate linkages between environment and development. (vi) Ensure individual and community participation in environmental improvement activities.

This policy is supported by sectoral Policies that provide for regulating the management of Uganda's natural resources and also provide measures for Biodiversity management in the various sectors of Government that include

The gap analysis focuses largely on the policies and laws for sectors conserving and managing biodiversity, as well as those that impact on these resources. However, it is noted that within the individual sectors, there are important strategic plans and guidelines that drive the actual implementation of the policies. Figure 1 below shows the relationship between the policy and legal framework and the planning and implementation framework, and the sectors of particular interest in this study.



Figure 1: Policy, legal and Implementation Framework for Biodiversity in Uganda



The Constitution of the Republic of Uganda is the overarching framework for the legislation for effective environment management. Specifically, the Constitution observes that the right to a decent environment is a right for all and attempts to guarantee this right by providing for participation of all stakeholders in the management of natural resources. Objective XIII of the Constitution requires the State to protect important natural resources, including land, water, wetlands, minerals, oils, fauna, and flora on behalf of the people of Uganda. 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. The Uganda Parliament has, in conformity with Article 245 of the Constitution, enacted both national and sectoral laws on the management of the environment. While the policies express Government's intent and commitments, the laws are important in providing the legal ground to support the implementation of the policies. To this end both policies and laws provide an enabling environment to support implementation actions.

The Ministry of Finance, Planning and Economic Development (MFPED) is responsible for the National Planning Framework that translates the Government Policies into actionable strategies. The Ministry is important in determining national priority areas, as well as guiding expenditure allocations in line with the national priorities. In particular, the National Planning Authority, which is the agency responsible for developing the short and medium term national priorities, guided by agreed strategic objectives, long term development goals and perspective vision aspirations. The National Development Planning Framework in Uganda is based on a 30-year Vision (2010-2040). The Vision 2040 aims at transforming Uganda from a predominantly peasant and low income country to a competitive upper middle income country. Vision 2040 is implemented through three 10-year medium term plans and six 5-year National Development Plans (NDPs). Vision 2040 specifically mentions a deliberate need to pursue strategies for sustainable development while the NDPII emphasizes and lays down specific approaches to ensure effective management of the environment and natural resources. These two strategic documents are operationalized through sectoral investment plans. The Sector Investment Plans (SIPs) and Local Government Development Plans (LGDPs) are aligned to the NDPs. MFPED is also responsible for the budgetary allocations that enable the implementation of planned activities. This includes among other things, expenditure allocations in line with the national priorities, coordination of the budgetary processes and coordination of the release of the recurrent funds to ministries, institutions and local governments.

The implication of the planning and budgetary framework is that (i) the strategies for implementing biodiversity conservation must be identified among the national and sectoral priorities during the planning cycle, and (ii) the actual implementation of any strategic intervention depends on the funding released through MFPED to the relevant sectors responsible for implementation.

Uganda has developed/updated the National Biodiversity Strategy and Action Plan (NBSAPII) to guide biodiversity conservation and management in the country. The goal of the NBSAP is "to enhance biodiversity conservation, management and sustainable utilization and fair sharing of its benefits by 2025" and provides a good framework to address biodiversity issues. It is the main instrument for implementing the Convention on Biological Diversity (CBD) at country level and provides Government with a framework for implementing its obligations under the CBD as well as the setting of conservation priorities, channeling of investments and building of the necessary capacity for the conservation and sustainable use of biodiversity in the country. However, as noted earlier, the implementation of the NBSAP depends on backing of the relevant policy and legal provisions in the country. Furthermore, the actual implementation of strategies and actions within the various sectors depends on translation and clarity of the relevant provisions of the strategy to enable actionable interventions. To this end, it is important to note that while the NBSAP has just been reviewed in 2016, it is no guarantee that all its

provisions will be effectively implemented and it is thus of necessity to review gaps in the policies and laws to ensure that the processes for implementation are clear, through sector regulations and guidelines, and how these influence the delivery of NNL/NG outcomes of biodiversity.

The Institutional framework for management of biodiversity in Uganda is guided by both the overarching National Environment management policy as well as the sectoral policies. NEMA provides oversight and supervisory roles while the sectoral management agencies namely the Uganda Wildlife Authority, the National Forestry Authority, the wetlands management Department and others provide the on-ground protection and management of the natural resources.

The Uganda Wildlife Authority is guided by the Wildlife Policy and promotes the long term conservation of the country's wildlife and biodiversity in a cost effective manner which maximizes the benefits for the people of Uganda.

The National Forestry Authority is guided by the Forestry Policy (2001) that is intended to promote the sustainable management of forestry resources. Among others this policy emphasizes the conservation and management of biodiversity in support of local, national social and economic development and international obligations.

Uganda's wetlands management Department is guided by the National Wetlands Policy (1995) to promote the conservation of Uganda's wetlands in order to sustain their ecological and socio-economic functions for the present and future well-being of the people. The Department promotes the recognition and integration of wetland functions in resource management and economic development decisions-making about sector policies and programmes such as forestry, agriculture, fisheries, and wildlife and sound environmental management, and thus has a key role in ensuring implementation of the biodiversity mitigation hierarchy.

The Ministry of Lands, Housing and Urban Development is mandated to promote effective land use and physical planning and is guided by the Land Policy (2000). The Ministry grants ownership of land-to-land owners and bona fide occupants of land in Uganda and grants the use of land and all resources in accordance with other laws and is thus also important in ensuring protection of biodiversity resources.

The Ministry of Agriculture, Animal Industry and Fisheries is guided by the National Agriculture Policy (2009) to promote farming systems and land-use practices that conserve and enhance land productivity in an environmentally sustainable manner. The sector can thus be both for biodiversity management as well as an impacting sector to biodiversity. With an appropriate focus the sector can Support farming systems that combine optimum production with land resources conservation compatible with the socio-economic conditions of the target population.

Biodiversity management in the country is therefore under a diverse institutional framework and thus several policies and laws need to be examined when assessing how efforts for implementing a biodiversity mitigation hierarchy can be enhanced in the country.

## **4 ANALYSIS OF POLICIES AND LAWS FOR THE DELIVERY OF NNL-NG**

### **4.1 General observations**

Uganda has developed many policies and laws that regulate the environment. While biodiversity conservation is variously addressed, there is no provision that explicitly deals with implementing the biodiversity mitigation hierarchy. The mitigation hierarchy involves addressing issues of either avoiding, minimizing, restoring compensating or in the extreme to provide for biodiversity offsets in case of any developments taking place in a particular area. As you will note from this report, the current policy and legal framework has been examined, and in its present form, save for section 2.5 (f) of the Uganda Wildlife Policy (2014), does not specifically require developers to adhere to the mitigation hierarchy (avoid, minimize, restore and offset/compensate) as provided for under Principle 1 of the Standard on Biodiversity Offsets. As In addition, there are no specific provisions that ensure that biodiversity offsets, where they are established, are to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity (Principle 4 of the Standard). In most cases, what the policies and laws emphasize are restoration activities in the mitigation hierarchy, especially through recommendations from Environment Impact assessments such as during construction of roads.

Some of the emerging policy and legal frameworks such as the National Environment Bill, 2016 and the Draft environmental impact assessment regulations 2016, are however cautiously providing for the implementation of the mitigation hierarchy and the need for achieving a NNL/NG.<sup>4</sup> If passed into law, the importance of the Bill in addressing biodiversity offsets/compensation is that many other laws hinge on it for the application of the mitigation hierarchy and for guidance in the mainstreaming environment in sectoral policies, laws and strategies. The National Environment Act is also important in guiding different sectors to develop their sector-specific guidelines for environmental impact assessments.

It is noted that some sectors like forestry and wildlife promote biodiversity conservation, while others like transport and works and oil and gas have significant impacts on biological resources and ecosystem functions. Both biodiversity management policies and biodiversity impacting policies have been examined, and, while in general there are no serious policy and legal provisions that stand out as serious obstacles or hindrances to the implementation of NNL/NG (even in impacting sectors), in practice there may be instances where there could be potential conflicts<sup>5</sup>.

In the following sections, gaps in the policy and laws are analyzed; identifying those provisions that explicitly require achievement of NNL/NG of biodiversity (Section 4.2); those which support but do not explicitly require NNL/NG (Section 4.3), and those that may stand as a obstacles (Section 4.4). Section 4.5 brings together the key findings and lessons on the gaps, and, section 4.6 gives an overview of the draft laws and policies that provide for the MH and NNL/NG.

### **4.2 Provisions that explicitly require achievement of NNL/NG**

The current policies and laws are not specific about biodiversity offsets, let alone the demand for application of the mitigation hierarchy and the requirements for achieving NNL/NG of biodiversity, save for the Uganda wildlife policy (2014) as detailed in section 4.2.1 (a).

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<sup>4</sup> The draft National Environment bill and the draft EIA Regulations are discussed in Section 4.6.

<sup>5</sup> This study focused largely on assessment of **provisions** in the policies, laws, strategies and action plans with regard to MH and NNL/NG. A separate study to understand what happen in practice would be useful.

#### 4.2.1 Policy Provisions

##### a) *Uganda Wildlife Policy, 2014*

The Vision for the Uganda Wildlife Policy 2014 is “sustainably managed and developed wildlife resources and healthy ecosystems in a transformed Ugandan society”. Specific Objective 1 of the Uganda Wildlife Policy is “To promote sustainable management of wildlife Protected Areas”. Strategy (d) to achieve this objective is “Ensure that all new developments and interventions within protected areas are subjected to appropriate environmental impact assessments and regular environmental audits are conducted on existing ones”. Detailed requirements concerning EIAs are provided for in the National Environment Act 1994 and the EIA Regulations 1998 which are discussed in Sections 4.3.2 (b), 5.1.2 (e) and 5.1.2 (f).

Specific objective 7 of the Uganda Wildlife Policy is “To ensure net positive impacts of exploration and development of extractive industries and other forms of development in wildlife conservation areas”. In Section 2.5 the policy provides 6 strategies to achieve this objective. In verbatim, Section 2.5 provides “a) Cooperate with the ministry responsible for oil and gas, mineral and energy development, oil companies and other relevant stakeholders to ensure co- existence of wildlife with other development activities; b) Establish standards, guidelines and mitigation measures to be followed for any development activities that may have a significant impact on wildlife; c) Monitor impacts of exploration and development of oil, gas and other minerals, tourism and energy infrastructure development in wildlife conservation areas; d) Ensure that exploration and development of oil, gas and other minerals; tourism and energy infrastructure development in wildlife conservation areas follow approved environment impact assessments; e) Create capacity of wildlife sector institutions to monitor impacts of oil and gas exploration and development and any other industrial or infrastructural developments; and f) *Pursue biodiversity offsets and payment for ecosystem services initiatives where mitigation is inappropriate*”.<sup>6</sup> Assuming that the “mitigation” referred to in section 2.5 (f) encompasses the first three steps (i.e. avoidance, minimization and restoration) in the mitigation hierarchy, then it can be concluded that this particular section fully addresses the MH.

#### 4.2.2 Provisions in the Laws

There are no explicit provisions in Uganda’s laws that require NNL/NG or application of the MH as provided in the standard on biodiversity offsets (BBOP, 2012)<sup>7</sup>. Although Regulation 14 (1) (i) of the **Environmental Impact Assessment Regulations, SI No.13/1998** requires among the things to include in the environmental impact statement “...the measures proposed for eliminating, minimising, or mitigating adverse impacts...”, it does not encompass all the stages in the MH and there is no explicit requirement to ensure NNL/NG.

#### 4.3 Provisions that support biodiversity conservation but do not explicitly require achievement of NNL/NG

The majority of policies and laws fall under this category. They mostly refer to the implementation of the National Environment Act and regulations thereof (especially the conduct of the environmental impact assessment), and strategies for mainstreaming environment into sector policies, plans and programmes. Characteristically, the provisions do not have direct reference to the mitigation hierarchy or NNL/NG. Restoration/rehabilitation of the ecosystems is the most common measure along the mitigation hierarchy that is implied. Several policies and laws are discussed.

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<sup>6</sup> Emphasis added.

<sup>7</sup> The mitigation hierarchy is defined to include avoidance, minimization, rehabilitation/restoration and offsets.

#### **4.3.1 Policy Provisions**

##### **a) *The National Environment Management Policy for Uganda, 1994***

The overall policy goal of the National Environment Management Policy for Uganda (NEMPU) is “sustainable social and economic development which maintains or enhances environmental quality and resource productivity on a long-term basis that meets the needs of the present generations without compromising the ability of future generations to meet their own needs”.

Under Section 2.2, one of the objectives of NEMPU is to “Conserve, preserve and restore ecosystems and maintain ecological processes and life support systems, especially conservation of biological diversity”. This objective directly addresses some aspects of the MH and supports institution of measures to ensure NNL/NG.

Section 2.3 provides the key principles of NEMPU. Principle (vii) can be used to support implementation of the MH and measures to ensure NNL/NG. It provides that “Full environmental and social costs or benefits foregone as a result of environmental damage or degradation should be incorporated in public and private sector planning and minimized where possible.

Chapter III provides cross-sectoral policy objectives, principles and strategies. A number of these support implementation of the MH and other measures to ensure NNL/NG.

Section 3.1 deals with Land and Resource Tenure. The sectoral policy objective is stated as “To promote improved land stewardship by rural and urban land users by better defining and strengthening land and resource tenure rights”. To achieve this objective, strategy (iii) requires “... new leases of public lands to carry conditions which prohibit environmentally unacceptable land-use practices” and strategy (iv) requires to “Subject public land leases to the environmental impact assessment process”.

Section 3.4 deals with the conservation of biological diversity. The cross-sectoral policy objective is stated as “To conserve and manage sustainably the country’s terrestrial and aquatic biological diversity in support of national socio-economic development”. A number of strategies provided to achieve this objective support implementation of the MH and measures to ensure NNL/NG. Strategy (ii) requires Government to “Enact and/or reactivate legislation on the management of natural resources to provide for conservation of biodiversity in its widest sense, including areas outside the PA system”. Strategy (vii) requires the relevant authority to “Identify valuable areas of terrestrial biodiversity outside of the protected areas...and explore means of protecting such areas, including gazettement as protected areas, purchase of land-use rights or conservation easements”. Strategy (viii) requires the relevant authority to “Identify and map out valuable areas and sensitive habitats of aquatic biodiversity, particularly breeding, nesting and feeding areas... and explore means of protecting such areas including gazettement as protected areas, purchase of the fisheries use rights, or conservation easements”.

Section 3.5 deals with water resource conservation and management. The policy objective is stated as “To sustainably manage and develop the water resources in a coordinated and integrated manner so as to provide water of acceptable quality for all social and economic needs”. Strategy (vii) provided for to achieve this objective requires to “Subject major water conservation and management projects to the Environmental Impact Assessment (EIA) process and include the costs and benefits of protecting watershed forests, wetlands and other ecosystems in the economic analysis of such water projects”. This is very important for the MH and ensuring NNL/NG.

Section 3.6 deals with wetlands conservation and management. NEMPU’s policy objective with respect to wetlands is “To promote the conservation of wetlands to sustain their ecological and social economic

functions for the present and future well-being of the people”. To achieve this objective, the policy requires among other things “...preparation of an EIA before major alteration of wetland are permitted” and “Establish full protection status for wetlands of significant biological diversity”. Requiring implementation of the MH and ensuring>NNL/NG is one way of protecting of wetlands of significant biological diversity.

Section 3.8 deals with EIA. The policy objective of NEMPU with respect to EIA is stated as “To provide a system of Environmental Impact Assessment (EIA) and environmental monitoring so that adverse environmental impacts can be foreseen, eliminated and mitigated”. Section 3.8 provides six guiding principles for EIAs in Uganda. These are stated verbatim below.

- Public and private sector development options should be environmentally sound and sustainable; any environmental consequences should be recognised early and taken into account in project design
- EIAs should consider not only biophysical/environmental impact but address the impact on existing social, economic, political and cultural conditions;
- EIAs for all public and private sector development activities should be required in order to determine the “environmental threshold” of a particular activity;
- Environmental Impact Statements (EISs) should be required for all activities where the EIA has determined a negative environmental threshold;
- Environmental Audits (EAs), including inspections and record-keeping, should be required for activities as might be determined by the EIS; and
- The Environmental impact assessment process should be administered by NEMA in consultation with line ministries, departments and the private sector

Section 3.8 provides three strategies to achieve NEMPU’s policy objective regarding EIAs. Strategy (i) is to “Create by law an EIA process which requires, as appropriate, environmental impact assessments, environmental impact statements and environmental audits for all private and public development projects”. Strategy (ii) is to lodge the EIA oversight function in the National Environmental Management Authority (as approved) but leave the implementation to the relevant line ministries and departments. Strategy (iii) is to “Develop EIA Capacity/capability in sectoral ministries and departments”.

#### **b) Uganda Forestry Policy, 2001**

Section 2.2 under the guiding principles of Uganda Forestry Policy requires forests to be managed to “meeting the needs of this generation without compromising the rights of future generations”<sup>8</sup>. This concept is emphasized by another Guiding Principle on Biodiversity and Environmental Services (section 2.4), which aims at safeguarding the nation's forest biodiversity and environmental services through effective conservation strategies<sup>9</sup>. These Guiding Principles embrace the concept of sustainable development, with emphasis to biodiversity and the related forest ecosystem services. Among the policy statements that are supportive to>NNL of biodiversity include:

- **Policy Statement 1** provides that “The Permanent Forest Estate under government trusteeship will be protected and managed sustainably”.<sup>10</sup> This policy aims at setting aside for the

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<sup>8</sup> Uganda Forestry Policy (2001). page 13

<sup>9</sup> ibid

<sup>10</sup> In the Glossary, it is provided that “Forests include all alpine, tropical high and medium-altitude forests, woodlands, wetland and riparian forests, plantations and trees, whether on land held in trust by government (gazetted Forest Reserves, National Parks and Wildlife Reserves) or non-gazetted land (mailo, leasehold, freehold or customary lands

conservation of biodiversity, the protection of environmental services, and the sustainable production of domestic and commercial forest produce<sup>11</sup>. The current Permanent Forest Estate (PFE) also contains the majority of the country's valuable biodiversity. However, Government may gazette as part of the PFE other areas identified as being of national significance for biodiversity conservation or protection of watersheds, riverbanks and lakeshores, and would be better protected under government's management, under the provisions of the Constitution. This policy provision is supportive for the establishment of biodiversity offsets and protecting them under the PFE.

This policy statement is an opportunity for protecting forest ecosystems against degradation and so offers a window to promote NNL of biodiversity. There is also an opportunity for NG in the PA system through the provision which allows Government to gazette new areas of biodiversity significance.

- **Policy Statement 2** provides for the promotion of sustainable management of natural forests on private lands, including tropical high forests through awareness raising of the ownership of forests and trees on private land and innovative options for economic, social and cultural incentives.

A specific strategy under this policy statement is "... to encourage private forest owners to set aside private forest as permanent forest land..." and so this provides an opportunity for a NNL of biodiversity. The private natural forests are important for their function as corridors between the major protected areas. If well maintained in pristine conditions, natural forests on private land contribute to enhancing biodiversity conservation.

- Policy statement 7 on the conservation of forest biodiversity aims at conserving Uganda's rich forest biodiversity to meet the needs and aspiration of present and future generations.

Two specific strategies under this policy statement are relevant in supporting NNL/NG. The first is "... support conservation initiatives in priority forests of high biodiversity value..." and the second is ... integrate and coordinate methods of forest genetic and species conservation through seed banks, botanical gardens and arboreta..." By focusing on high biodiversity value forest conservation initiatives as well as ensuring continued access to forest genetic resources, there will be a contribution to achieving a NNL of biodiversity or even a NG.

- **Policy statement 8**, in which Government is committed to promoting the rehabilitation of degraded forests, especially in catchment areas and bare hills to improve their integrity for continued delivery of ecosystem services as a provision that supports implementing an aspect of the mitigation hierarchy.
- The Policy also promotes tree improvement and genetic resource conservation through research and development and conservation of priority indigenous tree species that are endangered as sources of tree seed and planting material (Policy statement 11). This can and has potential to make a contribution to promoting a NNL of biodiversity.

### c) ***National Policy for the Conservation and Management of Wetland Resources, 1995***

The policy recognizes the importance of wetlands as habitats for a variety of biological resources, some of which depend on wetlands for their survival. To this end, the Policy statement under Section 7.4 aims

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<sup>11</sup> Ibid, page 15



at the Conservation of Wetlands through establishing “Protected Wetland Areas” of important biological diversity, as well as wetlands where partial exploitation (such as research) is permitted. Within the protected wetlands, no modification, drainage or other impacts is to be entertained. The Policy asserts that complete protection of certain ecologically important wetlands is necessary to protect indigenous species of plants and animals that exist in the wetland ecosystems and for conserving the biodiversity of Uganda for the future.

The Policy requires the application of EIA as a management tool, upon which all proposed modifications and restorations on wetlands and planned new wetland developments are subject. The EIA facilitates the identification of the appropriate mitigation measures along the mitigation hierarchy and the required environmental controls.

#### **d) *The National Water Policy, 1995***

The National Water Policy 1995 underscores the role of the water sector in the country’s overall development efforts, including agriculture, hydro-power supply, sewage and sanitary services, fishing industry, mining industry, manufacturing industry and tourism, among others<sup>12</sup>. The Policy provides for EIA as a planning tool and provides for the protection of the environment as a key principle of water management. For instance, development of water for agricultural production and significant agricultural developments in wetlands are subject to environmental impact assessment in accordance with the procedures established by National Environment Management Authority and approved by the authority in consultation with the lead agencies<sup>13</sup>. Through the EIA, appropriate mitigation measures are expected to be prescribed, e.g. measures to minimize logging, to prevent increase in salinity levels in the receiving waters and to prevent the accumulation of dangerous or toxic compounds in sub-soils, capable of contaminating underground waters. The Policy embraces the “polluter pays” principle as a measure to compensate for any contamination.

Wetlands are recognized as an integral part of water resources system and the policy promotes their sustainable use to conserve the ecological functions. One of the principles to guide the allocation of water described under Section 8.1 is that “...the allocations are to be reserved to ensure the continued viability of the resource and for the conservation of the environment, including maintenance of the aquatic ecosystem”.

#### **e) *The National Fisheries Policy, 2004***

The national vision for Uganda’s fisheries sector is “...an ensured sustainable exploitation and culture of the fishery resources at the highest possible levels, thereby maintaining fish availability for both present and future generations without degrading the environment...”<sup>14</sup>. One of the key general principles the policy is the precautionary principle which provides that “Lack of full scientific certainty should not be used as a reason for postponing or failing to take effective action where there are risks of serious irreversible harm to fish stocks/ or habitats”<sup>15</sup>. Policy Area 1 deals with sustainable management and development of fisheries.<sup>16</sup> Under this, objective 2 is “To protect the biological diversity of fisheries and the life support system that defines major fisheries assets”<sup>17</sup>. Policy Area 8 deals with the environment

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<sup>12</sup> A National Water Policy, 1995 (page 4)

<sup>13</sup> Ibid, section 6.4.6 page 28. The procedures are set out in the National Environment Act and the EIA Regulations and are operationalized by the Sectoral EIA Guidelines. See Section...of this paper for details.

<sup>14</sup> Section 1.2 of the Fisheries Policy.

<sup>15</sup> See Section 7.

<sup>16</sup> Section 8.2.1

<sup>17</sup> Ibid

and fisheries.<sup>18</sup> Under this policy area, the overall policy goal is “Adverse environmental impacts on fisheries will be minimized and mechanisms will be established at appropriate levels to achieve this”.<sup>19</sup> There are two policy objectives under Policy Area 8 that can be used to institute and support NNL/NG measures i.e., objective 1 which is “To protect fisheries and aquatic ecosystems from adverse environmental impacts” and objective 2 which aims “To ensure where possible that national and local government policies, plans and programmes do not cause adverse impacts on fisheries and aquatic ecosystems and that where such impacts cannot be avoided, measures are taken to minimize them”.<sup>20</sup> To achieve these two objectives there is a strategy (b) that requires to “subject sector policies and plans, as well as consents for developments that may have adverse impacts on fisheries to environmental impact assessment (EIA) in accordance with the EIA Guidelines and regulations, and ensure that potential adverse impacts on fisheries and aquatic ecosystems are specifically considered”.

**f) *The Uganda National Land Policy, 2013***

The vision for Uganda’s National Land Policy is “a transformed Ugandan society through optimal use and management of land resources for a prosperous and industrialized economy with a developed services sector”<sup>21</sup> Objective (vi) of the Policy 2013 is “to ensure sustainable utilization, protection and management of environmental, natural and cultural resources on land for national socio-economic development”.<sup>22</sup>

The Policy Statement under para 129 provides that “...Land in Uganda will be managed as a basic resource to support growth in other productive sectors through effective cross-sectoral integrations...” Among the strategies to achieve this objective include ensuring that the developments in production sectors do not lead to the deterioration of the quality of land resources”.<sup>23</sup> At para. 140 (b) and (d) respectively, Government commits to “... take measures to restore, maintain and enhance the integrity of natural resources” and “ to ensure that all land use practices conform to land use plans and the principles of sound environmental management, including biodiversity preservation, soil and water protection, conservation and sustainable land management”.

In para 142, among the strategies provided include “...design appropriate environmental standards for all production sectors...”; and “...provide special protection for fragile ecosystems, including unique and sensitive biodiversity colonies, like hill tops, wetlands, water catchment areas, lake-shores and river banks...”.<sup>24</sup> Although there is no specific requirement for the achievement of NNL/NG outcomes of biodiversity, these provisions in general facilitate the application of the mitigation hierarchy through the environmental standards.

**g) *The National Land Use Policy, 2007***

The overall goal for the national land use policy is “To achieve sustainable and equitable socio-economic development through optimal land management and utilization”.<sup>25</sup> Specific goal (3) of the National Land Use Policy is “To reverse and alleviate adverse environmental effects at local, national, regional and

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<sup>18</sup> Section 8.2.8.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid

<sup>21</sup> Section 2.2.

<sup>22</sup> Section 2.4.

<sup>23</sup> See para. 130 (ii) and (iii) respectively.

<sup>24</sup> See para. 142 (i) and (iii) respectively. The standards and other connected details are detailed in the sector specific policies, strategies and regulations

<sup>25</sup> See p.ix.

global levels”. Under Policy Statement 19, the Policy aims “To control forest degradation resulting from infrastructure development”. The strategies to implement this policy statement support NNL/NG and the mitigation hierarchy. They include: (i) subjecting all infrastructure developments to EIA; (ii) including the cost of environmental restoration measures in all infrastructure development budgets; (iii) ensuring the implementation of environmental mitigation measures during and after infrastructure development projects; and, (iv) encouraging infrastructure alignments that minimize forest degradation. Under Policy Statement 20, the Policy aims “To halt loss of, maintain and restore biodiversity”. Among the strategies to achieve this policy statement include encouraging practices that promote conservation of biodiversity among communities and implementing the National Biodiversity Strategy.

#### **h) *The Uganda National Housing Policy, 2016***

The Vision of the National Housing Policy is, “Adequate Housing for all”. With the increasing population, there is increasing demand for construction of residential houses and the related basic infrastructure and services such as roads, water and sanitation, drainage, energy, schools, health and recreation facilities and workplace whose supply are not commensurate with the need. Further the rapid urbanization process, currently standing at about 5.1% per annum coupled with incapacity to provide planned and serviced land for housing leading to the development of slums and informal settlements which account for about 60% of the urban settlements. The expansion of the housing sector is therefore expected to have negative impact on the natural resources and their related biodiversity. The key environmental issues identified by the Policy include “Lack of clarity on boundaries of gazetted sensitive ecosystems and protected areas leading to encroachment and environmental degradation”, and, “Lack of security of tenure in slums and informal settlements”<sup>26</sup>. However, guiding Principle (viii) of the Policy provides that housing development must take into account issues of environment, in addition to gender, HIV/AIDS, and vulnerability. In addition, under Policy Statement 20, Government commits to ensure effective implementation of the environmental policies, laws and regulations with regard to housing development, and mainstreaming environmental issues in housing. The application of these general provisions rely heavily on the guidance of the National Environment Act, the regulations thereof and the guidelines, especially the aspects related to environment impact assessment.

#### **i) *The National Oil and Gas Policy for Uganda 2008***

The National Oil and Gas Policy (NOGP) provides for the protection of the environment and conservation of biodiversity as one of its guiding principles.<sup>27</sup> To this end, it calls for balancing the environment, human development and biodiversity to ensure sustainable development.<sup>28</sup> It explicitly provides that it is the responsibility of licensed oil companies to protect the environment where they work or any areas in the country impacted by their operations.<sup>29</sup> Specific objective 9 of NOGP is “To ensure that oil and gas activities are undertaken in a manner that conserves the environment and biodiversity”.<sup>30</sup> Among the strategies provided for to achieve this objective include requiring oil companies and their contractors to use self-regulation and best practices in ensuring environmental protection and biodiversity conservation.<sup>31</sup> Arguably, the requirement of NNL/NG and the mitigation hierarchy is one such best practices that oil companies should be required to implement. The other important strategy provided for is the requirement for oil companies and other operators to make necessary efforts to return all sites

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<sup>26</sup> Section 3.3 on access to land for housing – Policy issues, page 12 -13

<sup>27</sup> See Section 5.1.5, p.19.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

<sup>30</sup> Section 5.4, p.27.

<sup>31</sup> Ibid.

on which oil and gas activities are undertaken to their original condition as an environmental obligation.<sup>32</sup> The NOGP also provides that “Access roads will be kept at a minimum in wildlife areas and other areas of sensitive biodiversity, and efforts will be made to construct and maintain these roads in a manner that conserves the environment”.<sup>33</sup> These are important provisions that can contribute to implementing aspects of the mitigation hierarchy. However, they do not necessarily guarantee the delivery of NNL/NG of biodiversity in case any development initiative is undertaken in a particular area.

**j) *The National Industrial Policy, 2008***

One of the Guiding Principles of the National Industrial Policy (2008) is to promote environmentally sustainable industrialization. Section 4.2.10 provides for sustainable industrial development. Under this, Government commits that “Industrial transformation shall be pursued in a manner that ensures efficient resource utilization and environmental sustainability”. Among the strategies and actions provided to achieve this include: introducing and strengthening effective industrial pollution control measures; fully implementing the provisions of the National Environment Policy in order to strengthen the implementation of the industrial pollution control measures across various Government agencies; encouraging industrial establishments to use technologies that minimize industrial emissions, the discharge of solid waste, and improve wastewater management; introduction and strengthening cleaner production techniques and work practices in industrial processes; and, minimizing, and ultimately eliminating, importation of obsolete or near-obsolete industrial equipment or products with a view to eliminating the negative effects of such on Uganda’s environment. These provisions provide an opportunity to protect ecosystems if operationalized through development of guidelines for protection of biodiversity from adverse effects of industrialization.

**k) *The Energy Policy for Uganda, 2002***

The policy goal of the Energy Policy for Uganda (2002) is to meet the energy needs of Uganda’s population for social and economic development in an environmentally sustainable manner. Specific Objective 5 of the Policy is “To manage energy-related environmental Impacts”. It is provided that Government will ensure that environmental considerations are given priority by energy suppliers and users to protect the environment and put in place a monitoring mechanism to evaluate compliance with established environmental protection guidelines. One of the strategies provided to achieve this objective is that Government will work towards the establishment and acceptance of broad targets for the reduction of energy-related emissions that are harmful to the environment and energy users. Under Part 6, the Policy provides for integrating the objective of environmental sustainability into all energy initiatives. To the extent that this provision can be operationalized to protect the living natural resources, then it can be used to enhance biodiversity management and reduce biodiversity loss.

**l) *The Mineral Policy of Uganda, 2001***

The vision for the mineral policy is “To attract investment, build capacity for acquisition and utilization of Geo-data and increase mineral production for economic and social development of Uganda”. A specific Objective 4 of the Mineral Policy of Uganda (2001) is “To minimize and mitigate the adverse social and environmental impacts of mineral exploitation”. Among the strategies provided to achieve this objective, Government commits to undertake responsibility for the clean-up operations of past negative mining environmental impacts.

**m) *National Policy for Disaster Preparedness and Management, 2010***

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<sup>32</sup> Ibid.

<sup>33</sup> Section 6.2.4,

The policy goal of the National Policy for Disaster Preparedness and Management (2010) is to establish institutions and mechanisms that will reduce the vulnerability of people, livestock, plants and wildlife to disasters in Uganda. One of the guiding principles of the Policy is that socio-economic and environment impact assessments shall be undertaken to guide planning and budgeting for Disaster Preparedness and Management. The Policy provides for environmental degradation as one of the human induced disasters (See Section 2.2.10). Among the policy actions to address this disaster include formulation of strict laws against environmental degradation and conducting EIAs.

#### **n) *The National Agricultural Policy, 2013***

One of the Guiding Principles is that Government shall ensure that key agricultural resources including soils and water for agricultural production are sustainably used and managed to support adequate production for the current and future generations. Specific objective 5 is to “Ensure sustainable use and management of agricultural resources”. Among the strategies provided include regulation of the exploitation of agricultural resources to ecologically sustainable levels

#### **4.3.2 Legal Provisions**

In general, the national and sectoral policies and laws in Uganda have considered environment as one important concern to address during any development. Most of the laws reviewed were enacted post-Rio World Summit, and hence there has been an effort in integrating the general principles of environmental management as an important pillar of sustainable development. The actual response varies from sector to sector. For instance, some sectors provide a general requirement to:

- The implementation of the environmental policies, laws and regulations, e.g. The Uganda National Housing Policy, 2016;
- Mainstream environmental issues in housing. (The Uganda National Housing Policy, 2016).
- Undertaking ecosystem restoration activities as mitigation measures; e.g. the National Land Use Policy, 2007
- Subjecting development projects to EIA
- Promoting implementation of the National Biodiversity Strategy and Action Plan, e.g. National Land Use Policy, 2007

The provisions of some of the important laws are described below.

#### **a) *The Constitution of the Republic of Uganda***

In the Constitution of the Republic of Uganda, National Objective and Directive Principle of State of State Policy XXVII provides that the State “...shall take all possible measures to prevent or minimize damage and destruction to land, air and water resources resulting from pollution or other causes.” This National objective also requires the State to promote the rational use of natural resources so as to safeguard and protect the Uganda’s biodiversity. Article 245 of the Constitution requires Parliament to ensure the protection and preservation of the environment by putting in place legal measures that protect and preserve the environment from abuse, pollution and degradation.

#### **b) *The National Environment Act, Cap 153***

The National Environmental Act came into force on 19 May 1995. It provides “for sustainable management of the environment; to establish an authority as a coordinating, monitoring and supervisory body for that purpose; and for other matters incidental to or connected with the foregoing”. Section 2 (2) (e) provides “the need to maintain stable functioning relations between the living and on living parts of the environment through preserving biological diversity and respecting the principle of

optimum sustainable yield in the use of natural resources” as one of the principles of environmental management in Uganda.

Section 2 (2) (i) provides for “prior environmental assessments of proposed projects which may significantly affect the environment or use of natural resources” as another key important principle of environmental management in Uganda;

Sections 19 provides for Project briefs and Environmental Impact Assessments (EIA) whose outcome is important for determining the mitigation hierarchy measures to impose on the project developers. In verbatim, Section 19 states that:

(1) A developer of a project described in the Third Schedule to this Act shall submit a project brief to the lead agency, in the prescribed form and giving the prescribed information.<sup>34</sup>

(2) The Minister may, on the advice of the board, by statutory instrument, amend the Third Schedule.

(3) An environmental impact assessment shall be undertaken by the developer where the lead agency, in consultation with the executive director, is of the view that the project—

(a) May have an impact on the environment;

(b) Is likely to have a significant impact on the environment; or

(c) Will have a significant impact on the environment.

(4) An environmental impact assessment shall be undertaken by experts whose names and qualifications are approved by the authority.

(5) An environmental impact assessment required in subsection (3) shall be appropriate to the scale and possible effects of the project, and accordingly

(a) Where the project may have an impact on the environment, an environmental impact review shall be conducted;

(b) Where the project is likely to have an impact on the environment, an environmental impact evaluation shall be conducted; or

(c) Where the project will have a significant impact on the environment, an environmental impact study shall be conducted.

(6) Where the lead agency, in consultation with the authority, is satisfied that an environmental impact review or an environmental impact evaluation conducted in accordance with subsection (5)(a) or (b) does not disclose possible significant impact on the environment, it may approve the environmental aspects of the project.

(7) Where the lead agency, in consultation with the authority, is satisfied, after considering the environmental impact review or the environmental impact evaluation, that the project will lead to significant impact on the environment, it shall require that an environmental impact study be conducted...”.

Section 20 (1) provides that “Where a project has been determined under section 19(7) as requiring an environmental impact study, the developer shall, after completing the study, make an environmental impact statement in the prescribed form and in the prescribed manner”. According to the **Environmental Impact Assessment Regulations, SI No.13/1998** among the things to include in the environmental impact statement include “the environmental effects of the project including the direct, indirect, cumulative, short-term and long-term effects and possible alternatives” and “*the measures proposed for eliminating, minimising, or mitigating adverse impacts*”.<sup>35</sup> These provisions on EIA support

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<sup>34</sup> According to Regulation 5 (1) (h) of the **Environmental Impact Assessment Regulations, SI No.13/1998**, among the things to be stated in the project brief is “the environmental effects of the materials, methods, products and by-products of the project, and how they will be eliminated or mitigated”.

<sup>35</sup> See Regulation 14 (1) (h) and (i) respectively. Emphasis added.

the application of the mitigation hierarchy and facilitate the delivery of NNL/NG outcomes of biodiversity.<sup>36</sup>

Section 41 of the National Environmental Act requires NEMA in consultation with the Lead Agency to issue guidelines and prescribe measures for the conservation of biological diversity. If well-thought through, the guidelines could provide opportunity for integration of NNL/NG and the mitigation hierarchy in the management of Uganda's biodiversity these Guidelines To-date, no such guidelines have ever been issued.

Section 67 of the National Environment Act, which provides for issuance of environmental restoration orders also supports the application of the mitigation hierarchy in some respects. Section 67 (1) provides that "Subject to the provisions of this Part, the authority may issue to any person in respect of any matter relating to the management of the environment and natural resources an order in this Part referred to as an environmental restoration order".

According to Section 67 (2), "An environmental restoration order may be issued under subsection (1) for any of the following purposes— (a) requiring the person to restore the environment as near as it may be to the state in which it was before the taking of the action which is the subject of the order; (b) preventing the person from taking any action which would or is reasonably likely to do harm to the environment...and (d) levying a charge on that person which represents a reasonable estimate of the cost of any action taken by an authorized person or organization to restore the environment to the state in which it was before the taking of the action which is the subject of the order".

Section 67 (4) provides that " (4) Without prejudice to the general effect of the purposes set out in subsection (1) or the powers of the authority set out in subsection (2), an environmental restoration order may require a person on whom it is served to— (a) take such action as will prevent the commencement or continuation of or the cause of pollution; (b) restore land, including the replacement of soil, the replanting of trees and other flora and the restoration, as far as may be, of outstanding geological, archaeological or historical features of the land or the area contiguous to the land specified in the order; (c) take such action as will prevent the commencement or continuation of or the cause of an environmental hazard; (d) cease to take any action which is causing or may cause or may contribute to causing pollution or an environmental hazard; (e) remove or alleviate any injury to land or the environment or to the amenities of the area; (f) prevent damage to the land or the environment, aquifers beneath the land and flora and fauna in, on, under or about the land specified in the order or land or the environment contiguous to land specified in the order; (g) remove any waste or refuse deposited on land specified in the order; (h) deposit waste in a place specified in the order; (i) pay such compensation as is specified in the order".

Section 72 provides for environmental easements. The provisions on environmental easements can be used to support and implement NNL/NG and certain components of the mitigation hierarchy.

According to Section 72 (1), "The court may, on an application made under this Part, grant an environmental easement, subject to this Act". Section 72 (2) provides that "The object of an environmental easement is to further the principles of environment management set out in section 2 by facilitating the conservation and enhancement of the environment, in this Act referred to as the benefited environment, through the imposition of one or more obligations in respect of the use of land, in this Act referred to as the burdened land, being land in the vicinity of the benefited environment".

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<sup>36</sup> More discussion about the EIA process is in Chapter 5 of this report.

Section 72 (3) provides that “An environmental easement may be imposed on and shall thereafter attach to the burdened land in perpetuity or for a term of years or for an equivalent interest under customary law as the court may determine”. Section 72 (4) states among other things that an environmental easement may be imposed on burdened land so as to preserve flora and fauna, preserve the quality and flow of water in a dam, lake, river or aquifer, preserve any outstanding geological, physiographical, ecological, archeological or historical features of the burdened land, and prevent or restrict the scope of any agricultural activity on the burdened land. Sections 73, 74 and 75 provide the application, enforcement and registration of environmental easements.

With respect to registration, Section 75 (1) provides that “Where an environmental easement is imposed on land, the title of which is registered under the Registration of Titles Act (RTA), the environmental easement shall be registered in accordance with the provisions of that Act applicable to the registration of easements”. In this connection, Section 65 of the Registration of Titles Act Cap 230 provides for easements existing under deed or writing to be noticed as encumbrances. It provides that “Notwithstanding the reservation in section 64 of any easements subsisting over or upon or affecting any land comprised in any certificate of title, the registrar shall specify upon any future certificate of the land and the duplicate of the certificate as an encumbrance affecting the land any subsisting easement over or upon or affecting the land which appears to have been created by any deed or writing”. Similarly, Section 100 of the RTA provides that “A memorial of any transfer or lease creating any easement over or upon or affecting any land under the operation of this Act shall be entered upon the folium of the Register Book constituted by the existing certificate of title of that land in addition to any other entry concerning that instrument required by this Act”. Unfortunately, there seems to be no known precedent in Uganda where the above stated provisions on easements have been applied.

To ensure compliance with the EIA regulations and conditions, section 96 provides for EIA offences and prescribes for penalties which include imprisonment...” for a term not exceeding 18 months or to a fine of not less than UGX 180,000 and not more than UGX 18 million or to both”.

### **c) *The National Forestry and Tree Planting Act, 2003***

The National Forestry and Tree Planting Act (NFTPA) came into force on 8<sup>th</sup> August 2003. Section 8 of the NFTPA deals with amendment of orders declaring central forest reserves (CFRs). According to Section 8 (2), “Where an amendment to an order declaring a central forest reserve will result –

- (a) in the reduction of part of the central forest reserve, an area at least equivalent in size to the reduction shall be simultaneously declared a central forest reserve; or
- (b) in the removal of the whole forest reserve, an area at least equivalent in size to the abolished reserve shall be simultaneously declared a central forest reserve”

Section 8 (3) requires that “Before a new area is declared a central forest reserve in terms of subsection (2), the environmental impact assessment must find the area to be of equivalent or greater environmental value”.

With a proper EIA that requires following the MH which is not the case in Uganda, the above stated provisions can substantially contribute to ensuring NNL outcomes since they require any reduction or removal of the whole forest reserve to be “offset” by an area at least equivalent in size to the reduction or abolished forest reserve to be simultaneously declared a central forest reserve.

Section 8 (4) provides that “An order declaring a central forest reserve, shall be revoked only where – (a) soil, slope, or other watershed conditions in the area will not be irreversibly damaged; (b) an environmental impact assessment carried out in respect of the proposed new land use of the area finds that the same area can be adequately reforested within five years after harvest or clearance of the land, should the area subsequently be the subject of a new declaration as a central forest reserve; (c)



protection is provided for streams, rivers, lakes, lake shores, river banks, wetlands and wildlife from detrimental changes in temperature or from erosion, pollution, degradation, deposit of sediments and desertification in areas where the proposed new land use is likely to seriously and adversely affect habitats or the environment...<sup>37</sup>. When and if effectively implemented this provision can substantially contribute to a NNL outcome of biodiversity and ecosystem values.

Section 29 provides for the conservation and management of all forest biological resources and their derivatives, whether naturally occurring or naturalized within a forest, for the benefit of the people of Uganda. According to Section 30, tree species of international or national importance that are endangered, rare or threatened may be declared by statutory order as reserved species, and subjected to specified management controls by the Minister responsible for forestry. According to Section 31 (1), the Minister or a District Council may by statutory order also declare in respect of a private land a particular tree, or group of trees on that land, to be a protected tree or trees, subject to controls specified by the Minister. Under Section 31 (2), the purpose for declaring protected trees is defined to include conservation of a distinctive specimen of any tree species; preventing soil erosion; conservation of biological diversity or species diversity, and conservation, protection and development of natural resources. Together, these provisions protect biodiversity from destruction which arguably amounts to avoidance within the mitigation hierarchy.

Section 32 of the Act prohibits certain activities from taking place in a forest reserve or community forests and creates offences for the offenders. The prohibited acts include: cutting, taking or removing forest produce; clearing, using or occupying any land for livestock farming, cultivation of crops; erecting buildings or enclosures; recreational, commercial, residential, industrial or hunting activities; and constructing or re-opening of roads, tracks, bridges, airstrips or landing sites. Any person who carries out any of these acts except for forestry purposes and in accordance with a forest management plan, or in accordance with a duly issued license commits an offence. Section 34 of the National Forestry and Tree Planting Act 2003 requires that any person cutting, working or harvesting forest produce from a forest reserve shall take due care and necessary precautions to prevent damage to other produce or environment. This includes preventing damage to biodiversity. Taken together, these provisions make a major contribution to avoidance of biodiversity loss which is a major aspect of the mitigation hierarchy.

#### **d) *The Mining Act, 2003***

Section 108 of the Mining Act requires every holder of an exploration license or a mining license to carry out an EIA in accordance with the National Environment Statute 1995

Section 109 of the Mining Act provides that there shall be included in every exploration license or mining lease a condition that the holder of such license or lease takes all necessary steps to ensure the prevention and minimization of pollution of the environment in accordance with standards and guidelines prescribed under the National Environment Statute 1995<sup>38</sup>.

Section 110 (1) of the Mining Act, provides that there shall be included in every exploration license or mining lease, a condition that the holder shall submit an environmental restoration plan of the exploration or mining area that may be damaged or adversely affected by his or her exploration or mining operations. According to Section 110(2), among the things to include in the restoration plan include a detailed timetable of steps to be undertaken which depending on the particular case could include reinstatement, leveling, re-vegetation, reforestation and contouring of the affected land.

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<sup>37</sup> Section 11 (4) of the National Forestry and Tree planting Act provides similar conditions for local forest reserves.

<sup>38</sup> NEMA has facilitated development of standards and guidelines that are relevant to protection of the environment from mining activities such as on waste management and control of pollution.

**e) The Physical Planning Act, 2010**

Under Section 32 (e) of the Physical Planning Act, a Local Physical Planning Committee has power to ensure the preservation of all land planned for open spaces, parks, urban forests and green belts, environmental areas, social and physical infrastructure and other public facilities, in accordance with the approved physical development plan.

Section 37 provides that “where a development application relates to matters that require an environment impact assessment to be carried out, the approving authority or physical planning committee may grant preliminary approval of the application subject to the applicant obtaining an environment impact assessment certificate in accordance with the National Environment Act”. The requirement for an EIA is supportive. However, the actual conduct of the EIA is retrospective and is prone to abuse.

**f) The Uganda Wildlife Act, Cap 200**

The Uganda Wildlife Act was enacted to “provide for sustainable management of wildlife; to consolidate the law relating to wildlife management; to establish a coordinating, monitoring and supervisory body for that purpose and for other matters incidental to or connected with the foregoing”. It came into force on 1<sup>st</sup> August 1996.

Section 4 establishes the Uganda Wildlife Authority (UWA) and section 5 outlines the functions of the Authority including the sustainable management of wildlife conservation areas (section 5(a)) and promotion of conservation of biological diversity *ex situ* (section 5(m)), among others. Section 15 requires a person intending to undertake a project or activity which may have a significant effect on any wildlife species or community to undertake an EIA in accordance with the NEA. Section 17 provides for declaration of wildlife conservation areas.

**Box 1: Procedure for the declaration of wildlife conservation areas**

(1) The Minister may, after consultation with the local government council in whose area a proposed wildlife conservation area falls and with the approval Parliament signified by its resolution, by statutory instrument, declare an area of land or water to be a wildlife conservation area.

(2) Before making a declaration under subsection (1), the Minister shall also ensure that an environmental impact study in accordance with the National Environment Act and such other study as may be prescribed has been conducted.

(3) A study made under subsection (2) shall investigate and make a report on the social and ecological consequences of the declaration of the proposed wildlife conservation area.

(4) The report under subsection (3) shall be submitted to the Minister, together with the recommendation of the board on the proposed declaration, within ninety days of the study being undertaken or such other longer period as the Minister may in writing specify.

(5) The Minister shall not amend a statutory instrument made under subsection (1) unless his or her decision is based on the study made under subsection (2) and the report under subsection (3) and unless he or she has the approval of Parliament signified by its resolution.

According to Section 18, these can be wildlife protected areas or wildlife management areas. Under Section 19 (1) (e) among the purposes of declaring wildlife conservation areas include “the preservation and protection of populations of rare, endemic and endangered species of wildlife plants and animals”. Section 27 provides for declaration of protected species. It provides that;

“(1) The Minister may, on the recommendation of the board, by statutory order, declare any species of wild plant or wild animal specified in the order to be classified as a protected species under this Act.

(2) Species which migrate to or through Uganda which are protected under any international convention or treaty to which Uganda is party and to which section 90 applies shall be protected species under this Act.

(3) Any order made under subsection (1) may apply to an individual species throughout Uganda, or to all or some species in a specified area or to varieties of a species, including sex and age groups.

(4) An order made under subsection (1) shall state whether a species of wild animal or plant shall be—

(a) a fully protected species which may not be subject to wildlife use rights; or

(b) a partially protected species to be utilized only subject to a grant of a wildlife use right”.

**g) *The Investment Code Act, Cap 92***

The Investment Code Act is “An Act to establish a code to make provision in the law relating to local and foreign investments in Uganda by providing more favourable conditions for investment, to establish the Uganda Investment Authority and to provide for other related matters”. It came into force on 25<sup>th</sup> January 1991.

Section 10 (1) provides that “A foreign investor shall not operate a business enterprise in Uganda otherwise than in accordance with an investment license issued under this Code”. Section 18 provides for implied terms and conditions in an investment license. Section 18 (2) (d) requires that a license may contain, among other undertakings by the investor “...to take necessary steps to ensure that the operations of his or her business enterprise do not cause injury to the ecology or environment”. This provision can be used to support NNL/NG.

**h) *The Public Procurement and Disposal of Public Assets Act, 2003***

Section 55 of the Public Procurement and Disposal of Public Assets Act 2003 requires that all public procurement and disposal be made in accordance with the Rules set out in the Act and the Regulations and Guidelines made under the Act. Regulations 327 (3) (b) and (c); 314 (4); and 297 (2) (g) and (i) of the PPDA Regulations support biodiversity conservation by emphasizing: minimal use of virgin material in the product; replacement of disposables with reusable or recyclables; toxicity reduction or elimination; durability and maintenance requirements; and the waste disposal requirements.

Section 58 requires a procuring and disposing entity to plan its procurement and disposal in a rational manner and specifically to avoid emergency procurement and disposal wherever possible, among other things. This provision is important given that information requirements for calculating biodiversity losses is lacking, and therefore the procuring and disposal entity must provide sufficient time to include data collection to inform decision making, especially where biodiversity offsets/compensation is involved.

Among the important statements of requirements outlined under Section 60 are the specifications, terms of reference, scope of works, drawings and bills of quantities. These documents facilitate the incorporation of the costs for biodiversity offsets/compensation for achieving NNL/NG outcomes of biodiversity.

**i) *Plant Protection and Health Act, 2005***

Section 10 of the Plant Protection and Health Act 2015, requires every occupier or owner of land to take measures as may be required or such other measures as are reasonably necessary to eradicate, reduce, or prevent the spread of any harmful organisms to plants which an inspector may order him/her to take.

**j) *The Land Act, Cap 227***

The Land Act is “An Act to provide for the tenure, ownership and management of land; ...to amend and consolidate the law relating to tenure, ownership and management of land; and to provide for other related or incidental matters”. It came into force on 2<sup>nd</sup> July 1998. The Land Act contains some good provisions that can facilitate measures for NNL/NG of biodiversity.

Section 2 on land ownership states that “all land in Uganda shall vest in the citizens of Uganda” and ownership is in accordance with customary, freehold, mailo and leasehold land tenure systems. This security of tenure is supportive of biodiversity conservation assuming that the owners are willing to

promote sustainable land management. However, this provision has contributed to massive destruction of the biological resources (Forests, wetlands, rangelands) owing to the liberty to utilize the land as deemed by the owners.

Section 43 provides “that any person who owns or occupies land must manage and utilize it in accordance with provisions of Forests Act, the National Environment Act, and the Mining Act, the Water Act, the Wildlife Act and any other law”. Section 44 provides for control of environmentally sensitive areas. Under Section 44 (1), specifically provides that “Government or a local government shall hold in trust for the people and protect natural lakes, rivers, ground water, natural ponds, natural streams, wetlands, forest reserves, national parks and any other land reserved for ecological and touristic purposes for the common good of the citizens of Uganda”. Section 44 (4) states that “...the Government or a local government shall not lease out or otherwise alienate any natural resource referred to in this section”.

Section 59 outlines the functions of the district land board and among others the district land board is to “...hold and allocate land in the district which is not owned by any person or authority...” Such land includes the former public land<sup>39</sup> some which might be biodiversity rich areas. Where districts are pro conservation, this offers an opportunity for enhancing protection of biodiversity areas. However, this provision can lead to biodiversity loss where districts prioritize development over conservation.

#### **k) The Land Acquisition Act, Cap 226**

The Land Acquisition Act makes “provisions for the compulsory acquisition of land for public purposes and for matters incidental thereto and connected therewith”. It came into force on 2<sup>nd</sup> July 1965. Section 3 (1) provides that “Whenever the Minister is satisfied that any land is required by Government for a public purpose, he or she may by statutory instrument, make a declaration to that effect”. While in many cases, this provision has been used to acquire land for infrastructure development, it could also be used for acquiring land for biodiversity conservation purposes including offsets. Therefore to the extent that acquiring land for biodiversity conservation purposes including offsets can amount to acquiring land for public purposes, then this provision can be used to support NNL/NG measures. In most cases however, this provision facilitates Government to take land for infrastructure purposes which often leads to destruction of biodiversity resources. So although it could be true that this could act to help achieve NNL it would require a radical change in behavior at the level of government where policy promotes development.

### **4.4 Provisions that prohibit or establish obstacles to achieving NNL/NG**

#### **4.4.1 Policies**

There are no policy provisions that directly prohibit or that are obstacles to the achievement of NNL/NG of biodiversity. This may be because most of the current policies were developed post Rio in 1992 and therefore they are conscious about sustainable development. However, there is a real challenge that lies in policy implementation failures, in which implementation tends to be skewed towards provisions that enhance aspects of development at the expense of provisions that promote the environment conservation agenda.

A few sectoral plans and strategies may affect efforts to achieve NNL/NG of biodiversity, although they do not stem from deliberate policy provisions. For example, the plan for commercialization of agriculture as elaborated in the NDPII, while useful to address food security and the general economic

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<sup>39</sup> The Land Act 1998 defines Former public land as land previously administered under public land Act, 1969 prior to the coming into force of the land reform decree of 1975.

development of the country, may curtail protection of biodiversity resources, especially where EIA is not a requirement, and this can be construed to be a hindrance to achievement of NNL/NG of biodiversity.

#### **4.4.2 Laws**

##### **a) *The Land Act, Cap 227***

The Land Act, provides among other things the land tenure systems in Uganda. Some of the land tenure systems provided for are not conducive for undertaking NNL/NG measures. Section 3 recognizes four forms of land tenure in Uganda i.e., customary, leasehold, freehold, and mailo. Customary tenure is not a settled tenure. Land held under customary tenure can be converted to freehold. Mailo land tenure creates a system of double rights over the same piece of land. It also permits the separation of ownership of land from ownership of developments on land made by a lawful and bona fide occupant. Applying the mitigation hierarchy including offsets in this kind of uncertainty of tenure is difficult.

##### **b) *The Physical Planning Act, 2010***

The Physical Planning Act provides “for the establishment of a National Physical Planning Board; to provide for the composition, functions and procedure of the Board; to establish district and urban physical planning committees; to provide for the making and approval of physical development plans and for the applications for development permission; and for related matters.” It came into force on 28<sup>th</sup> April 2010.

Section 37 states that “Where a development application relates to matters that require an environmental impact assessment to be carried out, the approving authority or physical planning committee may grant preliminary approval of the application subject to the applicant obtaining an environmental impact assessment certificate in accordance with the National Environment Act. This provision runs counter to the MH and achieving NNL/NG. Allowing developments to take place before the developer obtains an environmental impact assessment certificate may result in destruction and loss of biodiversity without mitigation. The EIA may be too late to offer useful support in instituting measures to avoid or minimize the adverse effects. Additionally, as noted in section 4.3.2, preliminary approval may encourage complacency by the developer.

#### **4.5 Draft Laws and Policies Providing for MH and NNL/NG**

Beyond the current legal and policy framework, there are emerging policies and laws that address the mitigation hierarchy and the NNL/NG of biodiversity. This section highlights provisions in these policies and laws that are under review.

##### **4.5.1 Draft Policies**

###### **a) *Draft National Environmental Management Policy for Uganda 2014***

One of the objectives of the Draft National Environment Management Policy for Uganda 2014 is “*To conserve and manage sustainably the country’s terrestrial and aquatic biological diversity in support of national socio-economic development*”.<sup>40</sup> The draft policy provides 11 strategies to achieve this objective. These are:

- “(i) Develop mechanisms for implementation of the National Biodiversity Strategic Action Plan including capacity building for implementation of national biodiversity targets;
- (ii) Strengthen existing legislation to bring on board protection of biodiversity outside PA;

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<sup>40</sup> See Section 3.4.

- (iii) Develop a policy framework and guidelines for the identification and management of buffer zones and buffer areas in and around PAs to help reduce conflicts between multiple uses and users (e.g. livestock and wildlife);
  - (iv) Develop a policy framework and guidelines for the identification and management of natural heritage sites, sacred groves and traditional knowledge;
  - (v) Review a mechanism for collaboration between Protected Area management and the neighboring communities in order to manage potential conflicts through the involvement of local people in the planning, management and decision making process, and ensure that apportion of benefits from the PA system is offered to the local communities;
  - (vi) Promote access and benefit sharing with adjacent / neighboring communities;
  - (vii) Foster public support for intended biodiversity actions and encourage private investment in biodiversity conservation;
  - (viii) Re-institute methods of adoptive management and continue the process of sustainable resource management techniques, based on research results and monitoring programs;
  - (ix) Strengthen links to the international biodiversity conventions, e.g., CITES, Ramsar, World Heritage Sites, etc...
  - (x) Develop clear and implementable strategies and guidelines on management of impacts of exploration of oil and gas and other mining activities on biodiversity and human beings; and
  - (xi) Develop strategies and guidelines for implementation of Biodiversity Offsets".
- Proposed strategy (xi) is directly relevant in as far as promoting NNL/NG and the mitigation hierarchy in Uganda is concerned.

#### **b) Other policies**

There are other policies in the process of being revised, but it was not possible to get the copies for review within the timeframe of the assignment for review. These include the Draft Irrigation Policy (MWE) and the Draft Wetland Policy (MWE). Strategic Environment Assessment guidelines are also being developed and now in draft form. The current process is a useful opportunity for integrating the issues of MH and the concepts of NNL/NG of biodiversity in these policies and guidelines.

#### **4.5.2 Draft Laws**

##### **a) *The National Environment Bill, 2016***

The National Environment Bill 2016 is intended to repeal and replace the current National Environment Act. The Bill presents an important opportunity to address some of the gaps, for effective management of biodiversity. It sets out provisions that require NNL/NG outcomes of biodiversity upon which other sectors will be based to revise their policies and guidelines for the management of biodiversity.

Section 4 provides for principles of environment management, some of which are very important for promoting MH and contributing to achieving NNL/NNG outcomes. Key among these are "to require prior environment assessments of proposed projects which may significantly affect the environment or use of natural resources,"<sup>41</sup> "to require the application of the mitigation hierarchy in environment assessments, to avoid and minimize impacts, achieve restoration targets and for residual impacts,

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<sup>41</sup> Section 4 (2) (i)

deliver biodiversity offsets,”<sup>42</sup> and “to promote the use of economic instruments and compensatory measures in environmental management”.<sup>43</sup>

Section 105 of the Bill is devoted to the application of the mitigation hierarchy and biodiversity and other offsets and compensation mechanisms. In verbatim, Section 105 provides thus

“(1) The developer shall, when designing a project for which an environmental impact or risk assessment is required, apply the mitigation hierarchy and address residual impacts that shall be either offset or otherwise compensated.

(2) In considering a project for assessment of environment impacts or environment risks, the Authority shall take into account compliance by the developer with the mitigation hierarchy to ensure application of appropriate avoidance, minimization and on-site rehabilitation or restoration measures before allowing the application of biodiversity offsets or other offset and compensation mechanisms.

(3) Subject to subsection (2), biodiversity offsets, other offsets and compensation mechanisms considered as mechanisms of last resort after avoidance, minimization and on-site rehabilitation or restoration, may be applied to address residual impacts.

(4) Where a biodiversity offset, other offset or compensation mechanism is considered, the developer shall design and implement it to address residual impacts and to achieve measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity or other benefits, provided that a net gain shall in all events be required in respect of projects in critical habitats or projects that may impact species of concern.

(5) The biodiversity or other offset or compensation mechanism referred to in subsection (4) shall be designed and funded as long as the impacts exist or preferably in perpetuity.

(6) The design of a biodiversity or other offset or compensation mechanism shall adhere to the “like-for-like or better” principle and shall be undertaken in accordance with best available information and as prescribed by regulations made under this Act.

(7) The Authority may issue guidelines for biodiversity offsets.”

Undoubtedly, if passed into law, this Bill will provide a foundation upon which other sectors will review their guidelines for EIA to clarify on the application of the mitigation hierarchy and ensuring the delivery of NNL/NG outcomes of biodiversity.

#### **b) *The Draft National Environment (Environment Assessment Regulations) Regulations 2016***

Part VI of the Draft Regulations deal with mitigation hierarchy, payment for ecosystem services and environmental management and monitoring plan. The relevant draft provisions are reproduced verbatim below.

#### **“43. Mitigation hierarchy.”**

(1) A developer of a project included in Schedule 5 or 6 of the Act or of a project proposed to be located in or near an environmentally sensitive area listed in Schedule 7 of the Act and any other project for

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<sup>42</sup> Section 4 (2) (j)

<sup>43</sup> Section 4 (2) (n)

which environment assessment may be required, shall apply the mitigation hierarchy of avoidance, minimization and mitigation of environmental impacts.<sup>44</sup>

(2) Subject to sub regulation (1), where the developer, during the environmental impact study considers that a biodiversity offset, other offset or compensation mechanism may be necessary, the developer may propose the offset or compensation mechanism only as the last measure in the mitigation hierarchy to address remaining residual adverse impacts.

(3) Notwithstanding sub regulation (2), a developer or other person may consider a biodiversity offset, other offset or compensation mechanism as a distinct arrangement with the provider of an ecosystem or environmental service.

(4) In designing a biodiversity offset, other offset or compensation mechanism under this regulation, the developer or person referred to in sub-regulation (3) shall—

- (a) propose an offset or compensation mechanism which restores the original ecological functions of the project area or other suitable area or location with similar ecological traits; and
- (b) adhere to the “like-for-like or better” principle in accordance with these Regulations and other applicable law.

(4) The developer shall submit to the Authority an environmental impact statement, or in the case of sub regulation (3) as a separate document, a justification for the proposed offset or compensation mechanism.

**“44. Consideration of an offset or compensation mechanism by the Authority.”**

(1) The Authority may consider the proposal of a biodiversity offset, other offset or compensation mechanism made by the developer under regulation 43(2) or (3), taking into account-

- (a) in relation to biodiversity or other offset, whether the offset -
  - (i) covers the full range of biological, socio-economic and cultural functions and values relating to biodiversity use;
  - (ii) is appropriate for the supporting ecosystems;
  - (iii) will achieve the expected measurable conservation outcomes; and
  - (iv) adequately responds to the risks or hazards identified.
- (b) in relation to compensation mechanisms, whether-
  - (i) the natural resource or land is able to perform the ecosystem service or to provide the environmental service desired;
  - (ii) the proposed compensation is agreed to by the recipient, is appropriate and adequate; and
  - (iii) a payment for ecosystem services scheme is concluded in accordance with regulation 46(3).

(2) Where residual impacts may not be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected, the Authority may require the developer to re-assess and put in place measures to address the identified risks.

**“45. Purpose of biodiversity offsets, other offsets or compensation mechanisms.”**

(1) Where the Authority approves a biodiversity offset, other offset or compensation mechanism, the developer shall ensure that the mechanism considered does not cause harm to human health or a net loss of biodiversity when applied.

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<sup>44</sup> By listing “mitigation” in the mitigation hierarchy, this provision confuses the concept of MH. The MH as stated in the National Environment Bill 2016 is comprised of “avoidance, minimization, restoration and biodiversity offsets/compensation.



(2) The developer shall set out strategies to achieve the same or greater level of biodiversity in the area of the offset or compensation mechanism with respect to –

- (i) species composition;
- (ii) habitat structure;
- (iii) ecosystem function; and
- (iv) cultural values and human uses associated with biodiversity.

**c) *The Uganda Wildlife Bill, 2016***

Section 23 of the draft Bill provides for a developer desiring to undertake a project which may have a significant effect on any wildlife species or community to undertake an environmental impact assessment. The detailed process is however linked to the provisions within the National Environment Act. With the revision of the NEA, it is hoped that the application of the mitigation hierarchy will be clarified, including the biodiversity offsets/compensation for the achievement of NNL/NG of biodiversity. Although the Uganda Wildlife Policy (2014) provides for pursuing biodiversity offsets and payment for ecosystem services initiatives, there is no corresponding provision in the Uganda Wildlife Bill to give a legal backing to this policy aspiration. The on-going review of the Wildlife Act is therefore an opportunity to address this gap.

## **5 ENVIRONMENTAL IMPACT ASSESSMENT, STRATEGIC ENVIRONMENT ASSESSMENT, THE MH AND>NNL/NG IN UGANDA**

This section is concerned with the extent to which Uganda's EIA Laws, Policies, Regulations, Sectoral Guidelines and Strategic Environment Assessments require or support application of the MH and>NNL/NG. It is important to note that although different sectoral laws and policies require EIA for certain projects, the detailed requirements and procedure of conducting EIA are provided for in the National Environment Act 1994, the Environmental Impact Assessment Regulations, SI No.13/1998 and the EIA Sectoral Guidelines. These are analyzed below.

### **5.1 POLICY AND LEGAL PROVISIONS THAT REQUIRE EIA**

This sub section is concerned with Uganda's legal and policy instruments that require EIA and the requirements and procedures for conducting EIA in Uganda

#### **5.1.1 Policy Provisions that Require EIA**

##### **(a) The Uganda Wildlife Policy 2014**

Objective 1 of the Uganda Wildlife Policy 2014 is "To promote sustainable management of wildlife Protected Areas". Strategy (d) to achieve the above-stated objective is to "Ensure that all new developments and interventions within protected areas are subjected to appropriate environmental impact assessments and regular environmental audits are conducted on existing ones".

Objective 7 of the Uganda Wildlife Policy 2014 is "To ensure net positive impacts of exploration and development of extractive industries and other forms of development in wildlife conservation areas". Strategy (d) to achieve the above-stated objective is to "Ensure that exploration and development of oil, gas and other minerals; tourism and energy infrastructure development in wildlife conservation areas follow approved environment impact assessments".

##### **(b) The National Environment Management Policy for Uganda 1994**

Section 3.8 deals with Environmental Impact Assessment. The objective is stated as "To provide a system of Environmental Impact Assessment (EIA) and environmental monitoring so that adverse environmental impacts can be foreseen, eliminated and mitigated".

Under Section 3.8, it is provided among the Guiding principles that "EIAs for all public and private sector development activities should be required in order to determine the "environmental threshold" of a particular activity".

Under section 3.8, among the strategies to achieve the above-stated objective is to "Create by law an EIA process which requires, as appropriate, environmental impact assessments, environmental impact statements and environmental audits for all private and public development projects".

Section 3.1 requires to "Subject public land leases to environmental impact assessment process".

Section 3.5 requires to "Subject major water conservation and management projects to the Environmental Impact Assessment process and include the costs and benefits of protecting watershed forests, wetlands and other ecosystems in the economic analysis of such water projects".

Section 3.6 "Require preparation of an EIA before major alteration of wetlands are permitted".

Section 4.2 requires to "...subject the introduction of exotic species to environmental impact assessment process and develop institutional capacity to carry out this process".

Section 4.3 provides among other principles that "Environmental Impact Assessment should be required for any activities which might affect wildlife resources, both inside and outside the PA system".

**(c) The National Policy for the Conservation and Management of Wetland Resources 1995**

Strategy (i) under section 7.8 states that “There will be a requirement that all proposed modifications and restorations on wetlands be subjected to an EIA, the result of which will determine whether such restoration or modification should proceed and if so to what extent”

Strategy (ii) under section 7.8 provides that “All planned new wetland developments will be subjected to an EIA process to determine the required environmental controls”

Strategy (iii) under Section 7.8 provides that “Those, which have been subjected to EIAs, will continuously be monitored to assess their impact on the environment and where the impact is detrimental, Government will require that such a development be halted”

**(d) The National Water Policy 1999**

Under Section 6.4.6 dealing with Environmental and Public Health Aspects, it is provided that the “Development of water for agricultural production shall be subject to environmental impact assessment in accordance with the procedures established by National Environment Management Authority and approved by the authority in consultation with the lead agencies”

Under Section 7.2 of the National Water Policy 1999 dealing with Water for industrial use, it is provided that “Environmental impact assessment will be required for all industrial developments”.

Under section 7.4 dealing with water for hydropower, it is provided that Government will promote hydropower generation. Strategy (ii) to achieve this objective states “minimizing social and environmental impacts through environmental impact assessments (EIA)”

**(e) The National Fisheries Policy 2004**

**Section 8.2.8** is concerned with the environment and fisheries. It is provided that “Adverse environmental impacts on fisheries will be minimized and mechanisms will be established at appropriate levels to achieve this”. Strategy (b) to achieve this objective is to “subject sector policies and plans, as well as consents for developments that may have adverse impacts on fisheries to environmental impact assessment (EIA), in accordance with EIA Guidelines and regulations, and ensure that potential adverse impacts on fisheries and aquatic ecosystems are specifically considered”.

**(f) The National Land Use Policy 2007**

Policy Statement 10 aims to “Encourage judicious use of agro-chemicals in a way that does not pollute the environment. Strategy (e) to achieve this objective requires to “Conduct Environmental Impact Assessments for all planned large farms (especially those engaged in horticulture); ensure potential impacts are mitigated against and establish a mechanism for monitoring the implementation of recommended mitigation measures”.

Policy Statement 19 aims “To control forest degradation resulting from infrastructure development”. Strategy (a) to achieve this objective requires to “Subject all infrastructure developments to Environmental Impact Assessment”.

**(g) The National Oil and Gas Policy for Uganda 2008**

The National Oil and Gas Policy for Uganda does not have any explicit provision requiring EIA for oil and gas activities. Nevertheless, under Section 7.2.6.2, among the roles given to the National Environment Management Authority is “Co-coordinating the processes of environmental impact assessments for oil and gas activities”. Under the same section, among the roles given to Uganda Wildlife Authority is “Participating in evaluation of Environmental Impact Assessments (EIA) and environmental audits for oil and gas activities”.

### **5.1.2 Legal Provisions that require EIA**

#### **(a) National Forestry and Tree Planting Act 2003**

Section 38 provides that “A person intending to undertake a project or activity which may, or is likely to have a significant impact on a forest shall undertake an environmental impact assessment”.

#### **(b) Mining Act 2003**

Section 108 (1) provides that “Every holder of an exploration license or a mining license shall carry out an environmental impact of his or proposed operations in accordance with the provisions of the National Environment Statute, 1995”.

#### **(c) Uganda Wildlife Act Cap 200**

**Section 15 (1)** provides that “Any developer desiring to undertake any project which may have a significant effect on any wildlife species or community shall undertake an environmental impact assessment in accordance with the National Environment Act”.

#### **(d) The National Environment (Wetlands, River Banks and Lake Shores Management) Regulations, No. 3/2000**

Regulation 5 provides for the principles to be observed in the management of all wetlands. One of the principles is set out in Regulation 5 (b) which states that “environmental impact assessment as required under the statute is mandatory for all activities in wetlands likely to have an adverse impact on the wetland”.

Regulation 34 (1) explicitly provides that “A developer desiring to conduct a project which may have a significant impact on a wetland, river bank or lake shore, shall be required to carry out an environmental impact assessment in accordance with sections 19, 20 and 21 of the Act”.

#### **(e) National Environment Act**

Section 19 states that:

“(1) A developer of a project described in the Third Schedule to this Act shall submit a project brief to the lead agency, in the prescribed form and giving the prescribed information.”<sup>45</sup>

(2) The Minister may, on the advice of the board, by statutory instrument, amend the Third Schedule.

(3) An environmental impact assessment shall be undertaken by the developer where the lead agency, in consultation with the executive director, is of the view that the project—

(a) may have an impact on the environment;

(b) is likely to have a significant impact on the environment; or

(c) will have a significant impact on the environment.

(4) An environmental impact assessment shall be undertaken by experts whose names and qualifications are approved by the authority.

(5) An environmental impact assessment required in subsection (3) shall be appropriate to the scale and possible effects of the project, and accordingly—

(a) where the project may have an impact on the environment, an environmental impact review shall be conducted;

(b) where the project is likely to have an impact on the environment, an environmental impact evaluation shall be conducted; or

(c) where the project will have a significant impact on the environment, an environmental impact study shall be conducted.

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<sup>45</sup> The third Schedule to the National Environment Act is reproduced at the end of this section.

(6) Where the lead agency, in consultation with the authority, is satisfied that an environmental impact review or an environmental impact evaluation conducted in accordance with subsection (5)(a) or (b) does not disclose possible significant impact on the environment, it may approve the environmental aspects of the project.

(7) Where the lead agency, in consultation with the authority, is satisfied, after considering the environmental impact review or the environmental impact evaluation, that the project will lead to significant impact on the environment, it shall require that an environmental impact study be conducted”.

Section 20 (1) provides that “Where a project has been determined under section 19(7) as requiring an environmental impact study, the developer shall, after completing the study, make an environmental impact statement in the prescribed form and in the prescribed manner”

Additionally, the NEA, Cap 153 provides for offences and prescribes penalties related to EIA.

#### **(f) The Environmental Impact Assessment Regulations, SI No.13/1998**

Regulation 3 (1) provides that “These regulations shall apply - (a) to all projects included in the Third Schedule to the Act; (b) to any major repairs, extensions or routine maintenance of any existing project which is included in the Third Schedule to the Act”.

Following on Section 19 of the National Environment Act, Regulation 3 (2) provides that “No developer shall implement a project for which environmental impact assessment is required under the Act and under these regulations unless the environmental impact assessment has been concluded in accordance with these regulations”.

Regulation 5 requires a developer to prepare a project brief stating, in a concise manner a number of things concerning the project. According to Regulation 5 (1) (h), among the things to be stated in the project brief is “the environmental effects of the materials, methods, products and by-products of the project, and how they will be eliminated or mitigated”. Regulation 5 (2) provides that “In preparing the project brief the developer shall pay particular attention to the issues specified in the First Schedule to these Regulations”. The issues are reproduced in the text Box 2.

#### **Box 2: ISSUES TO BE CONSIDERED IN MAKING ENVIRONMENTAL IMPACT ASSESSMENT**

The following issues may, among others, be considered in the making of environmental impact assessments.

##### **1. Ecological Considerations;**

(a) Biological diversity including: i) effect of proposal on number, diversity, breeding habits, etc. of wild animals and vegetation. ii) gene pool of domesticated plants and animals e.g. monoculture as opposed to wild types.

(b) Sustainable use including: i) effect of proposal on soil fertility ii) breeding populations of fish and game or wild animals iii) Natural regeneration of woodland and sustainable yield iv) Wetland resource degradation or wise use of wetlands

(c) Ecosystem maintenance including: i) effect of proposal on food chains ii) Nutrient cycles iii) Aquifer recharge, water run-off rates etc... iv) Areal extent of habitats v) Fragile ecosystems.

##### **2. Social considerations including:**

i) effects of proposal on generation or reduction of employment in the area.

ii) social cohesion or disruption.

iii) effect on human health.

iv) immigration or emigration.

v) communication - roads opened up, closed, re-routed.

vi) local economy.

vii) effects on culture and objects of cultural value.

##### **3. Landscape:**

i) views opened up or closed.

ii) visual impacts (features, removal of vegetation, etc.)

According to Regulation 9 (1) “If the Executive Director finds that the project will have significant impacts on the environment and that the project brief discloses no sufficient mitigation measures to cope with the anticipated impacts, he shall require that the developer undertakes an environmental impact study”.

According to Regulation 13 (1) on completing the environmental impact study, “the developer shall make an environmental impact statement”.

Following on Section 20 of the National Environment Act, Regulation 14 (1) (i) provides that among the things to include in the environmental impact statement are “the measures proposed for eliminating, minimizing, or mitigating adverse impacts”. While this is important in supporting implementation of aspects of the MH, it does not address the whole range of the requirements for mitigating biodiversity loss and so does not address the mitigation hierarchy. To this effect, it does not sufficiently guide decision makers and EIA practitioners in the application of the full range of the mitigation hierarchy.

## **5.2 EIA SECTORAL GUIDELINES AND THE MH AND NNL/NG**

This subsection examines the extent to which sectoral guidelines require or support the application of the MH and NNL/NG.

### **(a) The Environmental Impact Assessment Guidelines for Road Projects 2014**

These Guidelines present steps and procedures for conducting EIAs of road projects and the purpose of each step in the EIA process. They also identify potential impacts of road sector activities and the potential mitigation measures among other things. Section 3.6.2 deals with the basic steps of conducting an EIA. It is provided that an EIA comprises of seven steps i.e., “baseline study, description of the positive and negative impacts, analysis of alternatives, detailed descriptions of mitigation measures and their costs, preparation of an environmental management plan, i.e. mitigation and monitoring plans, and environmental impact statement”. With respect to detailed descriptions of mitigation measures and their costs, it is provided that “Mitigation measures have to be developed for all adverse impacts”. The Guidelines further require that “Adequate description of mitigation measures must therefore be included in the contract documents and where deemed appropriate, included as pay items in the Bill of Quantities, so that contractors are responsible for their implementation”.

With respect to the Environmental Impact Statement (EIS), the Guidelines provide for what should be contained therein. It is provided that one of the sections in the EIS should deal with mitigation and should provide “a detailed description of measures to avoid, eliminate, or minimize adverse impacts, including technical drawings of structures etc., if necessary, and costs for constructing or incorporating such measures”. Although this statement does not provide for the full MH measures, it facilitates application of the MH and measures intended to achieve NNL/NG. Other matters important to the MH and NNL/NG that should be covered in the EIS according to the Guidelines include “an analysis of the costs and benefits of the proposed mitigation measures” and “an action plan for mitigation measures, giving a schedule for incorporating them, a monitoring schedule, an indication of responsibility for monitoring, identification of indicators that need to be monitored, monitoring methods, funding sources for monitoring, schedules for evaluations and audits”.

Section 3.7.3 deals with review of EIR and EISs. Among the things to consider during the review include “Mitigation and support measures”. In verbatim, Section 3.7.3 provides for the things to consider under mitigation and support measures thus:

- impacts of design alternatives (e.g. for new alignments and re-alignments, location of

bridges) have been properly discussed.

- mitigation measures for adverse impacts have been adequately developed.
- adequate consideration has been given to compensation for land uptake, housing, crops and for resettlement
- significant adverse impacts that cannot be avoided or mitigated have been described.
- support measures to enhance positive impacts have been properly developed.
- experience from similar projects carried out in the past have been taken into account.
- local communities have been involved in developing mitigation and support measures.
- mitigation and support measures are technically and scientifically sound.
- mitigation and support measures have been included in the financial/economic analysis.

Some of the considerations provided for in Section 3.7.3 like consideration 2 and 4 can be used to facilitate application of the MH and NNL/NG. Beyond “significant adverse impacts that cannot be avoided or mitigated have been described,” the Guidelines should have explicitly required that those impacts should be addressed.

#### **(b) Guidelines for Environmental Impact Assessment of Forestry Developments 2005**

Section 6.3 deals with various aspects of EIA. It is stated that The EIA consists of four main phases i.e., “baseline studies; impact prediction; Impact assessment, and Mitigation”. With respect to mitigation, Section 6.3.6 provides that an impact mitigation plan/ environmental management plan “consists of a set of measures to be taken during project implementation and operation to: Avoid certain impacts by eliminating particular actions from proposals; Minimise impacts by limiting the degree or magnitude of the actions; Rectify the impact by repairing, rehabilitating, or restoring the affected environment; Reduce or eliminate the impact by preservation- and maintenance-operations during the course of the action; and Compensate for the impact by providing, replacing or enhancing substitute resources or environments”. This is a clear statement that supports application of the MH and NNL/NG. The challenge though is that it stated not as a requirement but rather a mere explanation of what should be contained in a mitigation plan.

Section 6.4 deals with EIS. Among the contents of EIS, it provides for mitigation measures i.e., “A description of the measures proposed for eliminating or minimizing adverse impacts and the measures proposed for enhancing positive impacts” and the Environmental Management Plan i.e., “A plan that focuses on pragmatic, feasible and cost effective mitigation measures for significant environmental impact, preferably quantified through the use of performance targets and mitigation objectives”

Section 7.1 deals with review of EISs. Among the things to consider during the review include “Mitigation measures”. Under here it is provided verbatim as follows.

- Impacts have been properly discussed and analysed;
- Mitigation measures for adverse and beneficial impacts have been adequately developed;
- Alternative options have been thoroughly examined;
- Adequate considerations have been given to compensation;
- Significant adverse impacts that cannot be avoided or mitigated have been described and where possible other environmental enhancements or replacements identified;
- Past experiences from similar projects have been taken into account;
- Local communities have been involved/consulted in developing mitigation measures;
- Mitigation measures are technically and scientifically sound; and
- Mitigation measures have been included into the financial/economic analysis.

Sections 6.4 and 7.1 support application of the MH and NNL/NG. It is significant that unlike the EIA Guidelines for road projects, these guidelines require that “Significant adverse impacts that cannot be avoided or mitigated have been described and *where possible other environmental enhancements or replacements identified*”<sup>46</sup>

#### **(c) Environmental Impact Assessment Guidelines for the Energy Sector 2004**

Section 3.7 deals with environmental monitoring. It is provided among other things that “measures to eliminate or minimize effects on the environment must have specific objectives and indicators, and must be included in project documents and in agreements”.

Section 5.5 deals with review of the EIS. One of the areas for assessment is mitigation measures. Regarding this area, the review is concerned with “Existence of a list of mitigation Measures, Validity and adequacy of the proposed mitigation measures, Impacts that cannot be avoided have been identified and accordingly addressed, A compensation plan has been drawn for unavoidable impacts that cannot be mitigated, Mitigation and support measures are technically and scientifically sound, Mitigation measures were drawn in close consultation with the public and local communities”.

Section 7.4 deals with Preparation of EIS. It is provided that the contents should include the “measures proposed for eliminating, minimising or mitigating adverse impacts”. Looked at in totality, the above EIA provisions support application of the MH and NNL/NG requirements.

#### **(d) Environmental Impact Assessment Guidelines for Water Resources-related projects in Uganda 2011**

Section 4.2.3.6 deals with Impact mitigation and enhancement. It is provided that if the evaluation of a proposed project concludes that the impacts are significant, “then the next step is for the EIA to propose measures to do one or all of the following: prevent adverse impact, reduce/decrease its magnitude, rectify impact or compensate for loss of resources”. This is a very important statement that can be used to support application of the MH and requirement of NNL/NG outcomes. The challenge is that it is not stated as a requirement and even if it were, it has no legal backing. The Guidelines state further that achieving this can be through different measures which might include: “locating the project so as not to affect environmentally sensitive locations; using construction, operation and restoration methods or processes which reduce environmental effects; designing the whole project carefully to avoid or minimize environmental impacts; and introducing specific measures into the project design, construction, decommissioning and restoration that will reduce or compensate for adverse effects”.

It is emphasized that “Mitigation can be used to encompass measures intended to avoid, cancel or reduce adverse effects... and are determined by the type of resource to be affected” To this effect, the Guidelines provide key information regarding mitigation, compensation and enhancement. This information is reproduced verbatim in Box 3.

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<sup>46</sup> Emphasis added.



**Box 3: Key information on mitigation, compensation and enhancement**

**Mitigating measures or mitigation** are the measures taken to avoid, cancel or reduce adverse impacts of the project.

**Avoidance** measures eliminate or avoid any adverse impacts, and may include alternative or 'do nothing' options.

**Cancellation** measures nullify or cancel out the effects of a project before they can have a negative impact

**Reduction** measures minimise or at least reduce adverse impacts of the project that have not been avoided or cancelled out.

**Remedial or Compensatory measures or compensation** are other measures taken to (at least try to) offset or compensate for residual adverse effects which have not been avoided, cancelled out or reduced to insignificant levels or risks.

**Enhancement/Net Benefit/New Benefit** is the genuine enhancement of the environmental interest of a site or area because adverse effects are limited in scope and scale, and the project includes improved management or new habitats or features, which are better than the prospective management, or the habitats or features present at the time of the EIS study. There is, therefore, a net or new benefit to the environment.

In summary, it is apparent that unlike the laws and policies analyzed in Section 4, the EIA sectoral Guidelines generally contain explicit statements which taken together imply a requirement to apply the MH and NNL/NG. These statements are however not framed as requirements; neither do they have sufficient legal backing.

### 5.3 THE STRATEGIC ENVIRONMENTAL ASSESSMENT OF OIL AND GAS ACTIVITIES IN THE ALBERTINE GRABEN 2013

Strategic Environment Assessments (SEA) can be a very important tool in addressing environment issues in development. However, in Uganda this has not taken root. This far, the country has only conducted one SEA and that is for the oil and gas activities in the Albertine Graben.

Although the strategic environmental assessment of oil and gas activities in the Albertine Graben emphasizes the need for a comprehensive framework to guide mitigation efforts, it does not make any specific reference to the MH, or biodiversity offsets NNL/NG. Nevertheless, from the consultations that the team which did the assessment had with different stakeholders, recommendations relevant to issues of biodiversity offsets came up. For instance, in the consultations with the NFA about petroleum-related activities in protected and environmentally sensitive areas, it was noted and recommended that "When oil and gas activities have to be carried out in a forest reserve, the current mitigation focuses on only restoration. There is need to also regulate the companies to consider offsetting destroyed forest areas".<sup>47</sup> In the consultations with civil society organizations about the same subject matter, it was noted and recommended that "Mitigation measures alone will not be adequate. EIA guidelines should include possibility of offsets. Responsible institutions also need to understand under what circumstances an offset is required"<sup>48</sup>

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<sup>47</sup> See p.57.

<sup>48</sup> See p.59.

## **6 INTEGRATION OF NNL/NG AND THE MITIGATION HIERARCHY INTO NATIONAL AND SECTORAL PLANNING FRAMEWORKS**

The Policies and laws are translated into action through the National and sectoral Strategic Investment Plans and strategies. The sector policies and laws have already been covered under Chapter 4. This Chapter looks at the integration of the requirements for NNL/NG of biodiversity in the planning framework.

### **6.1 National Planning Framework and how it affects decisions on biodiversity management**

The overall planning framework consists of a Comprehensive National Development Planning Framework policy (CNDPF) approved in 2007, which provides for the development of a 30 year Vision to be implemented through: three 10-year plans; six 5-year National Development Plans (NDPs); Sector Investment Plans (SIPs); Local Government Development Plans (LGDPs), Annual work plans and Budgets.

#### **a) Vision 2040**

Vision 2040 is an overarching strategic planning framework which provides development paths and strategies. The Vision statement anticipates to transform the society from a predominantly low income to a competitive upper middle income country, and hence to create a modern and prosperous country within 30 years. The priority drivers of social-economic transformation include tourism, agriculture, oil and gas, minerals, water resources, industrialization, utilization of the abundant labour force, application of knowledge and information, communication technology (ICT) and taking advantage of the geographical location and trade. Government is also to strengthen transport infrastructure and services, energy, Science, Technology, engineering and Innovation, Urban Development, Land and Peace, Security and Defence.

The Vision is to be achieved largely through harnessing the various components of biodiversity (water resources and wetlands, biodiversity and ecosystem health, land resources, fisheries resources, forests and oil and gas resources) to maximize returns to the economy. The Vision upholds Uganda's commitment to the principle of sustainable development and promotes conservation of flora and fauna. It is stated that, "Uganda will take urgent measures to protect the environment and natural resources and ensure their future sustainability". In this respect, it can rightly be argued that Vision 2040 can be used to institute measures that facilitate in general terms NNL of biodiversity. The main threats leading to the rapid deterioration of the quantity and quality of the natural resource base are identified to include increased pressure from high population growth and economic activities. To address the declining natural resource base, paragraphs 295 - 298 of Vision 2040 states that "efforts will be made to restore and add value to the ecosystems", targeting wetlands, forests, rangelands and catchment areas, as follows:

- Supporting re-forestation and afforestation efforts to restore the forest cover from the current 15 per cent of the total land area to 24 per cent.
- Restoration of degraded wetlands, hill tops, rangelands and other fragile ecosystems will be achieved through the implementation of catchment –based systems, gazettement of vital wetlands for increased protection and use, and monitoring and inspecting restoration of ecosystems (wetlands, forests, catchments).
- Conservation and wise use of the Environment and Natural Resources (ENR) and cultural diversity for collective benefit of the present and future generations and adoption of patterns of production, consumption and reproduction that safeguards the environment will be undertaken as a matter of urgency.

- Government will promote the development, adoption and equitable transfer of environmentally sound technologies and assist the population to internalize the full environmental and social cost of goods and services.

The mitigation hierarchy for achieving NNL/NG is not explicitly provided for to actualize the conservation of biodiversity commensurate to the threats identified. The development interventions envisaged by the Vision 2040 would invariably result in residual unavoidable impact on biodiversity resources. Among those which are biodiversity sensitive include:

- **Infrastructure constructions**
  - A standard gauge railway network with high speed trains;
  - Multi-lane paved national road network linking major towns, cities and other strategic locations;
  - Four international airports;
- **Lands, housing and urban development:**
  - Five regional cities (Gulu, Mbale, Kampala, Mbarara, and Arua) and five strategic cities (Hoima, Nakasongola, Fortportal, Moroto, and Jinja);
- **Mining:**
  - Establishment of a Phosphate industry in Tororo;
  - Development of an Iron ore industry in Muko, Kabale;
- **Energy:**
  - Nuclear power and hydro power plants (Ayago, Isimba, Karuma, and Murchison Bay);
  - Oil Refinery and associated pipeline infrastructure;
- **Agriculture:**
  - Commercialization of agriculture
  - Construction of large irrigation schemes;

Conversion and disturbance of natural habitat is inevitable, due to population growth with the resultant pressure on the country's resources for increased agricultural and industrial production, energy supply and domestic water supply. For instance the development of oil and gas industry within the Albertine Graben (AG), will affect this most species rich eco-region in Africa. 70% of Uganda's protected areas are in the AG, and the oil and gas exploration areas overlap such area. Sufficient measures have to be put in place to ensure that the oil and gas exploration, production, transport and marketing does not obliterate the biological diversity of the region. The effects of development on biodiversity may be offset through the mitigation hierarchy as well as compensating efforts to protect, restore and enhance natural ecosystems. A clear description of measures for avoidance of impacts including those taken to avoid impacts and risks to highly irreplaceable and/or vulnerable biodiversity, minimization of impacts and establishing biodiversity offsets at this strategic level could put a clear requirement for the developers to ensure no net loss to biodiversity and rather contribute to its enhancement.

It was noted that although the EIA is an important tool in managing the impact of any development project, the Vision 2040 does not require or demand for developers to undertake an EIA. As an overarching Plan emphasis of the application of this tool would otherwise provide compelling guidance for adoption by in the planning process by sectors, MDA and local governments.

## **b) National Development Plan**

The National Development Plan is an overarching short-term planning framework for Uganda that sets national priorities for investment in line with the Uganda Vision 2040. The NDPII emphasizes prioritization of interventions through a value chain analysis; a Spatial Framework; alignment of sector/MDA/LG priorities and budgets with NDPII priorities and appropriate financing modalities for the

priority interventions<sup>49</sup>. The goal of this Plan is “to attain middle income status by 2020 through strengthening the country’s competitiveness for sustainable wealth creation, employment and inclusive growth”. The main objectives of the Plan are to:

- Increase Sustainable Production, Productivity and Value Addition in Key Growth Opportunities,
- Increase the Stock and Quality of Strategic Infrastructure to Accelerate the Country’s Competitiveness,
- Enhance Human Capital Development, and
- Strengthen Mechanisms for Quality, Effective and Efficient Service Delivery

The NDPII priority areas are Agriculture, Tourism, and Minerals, Oil and Gas (considered to be the growth opportunities) and Infrastructure and Human Capital Development (referred to as development fundamentals). The Agriculture Sector is to “Increase agricultural production and productivity” (Objective 1 under Agriculture Sector) and to “...Increase access to critical farm inputs” (Objective 2). In order to achieve these objectives, the following interventions, among others are outlined:

- Accelerate the development and commercialisation of the prioritized agricultural commodities.
- Promote commercialisation of agriculture particularly amongst small holder farmers
- Increase access to water for agricultural production (Irrigation, water for livestock, aquaculture-fish ponds/caging).
- Increase agricultural mechanisation (Farm Power)

The twelve agricultural commodities emphasized are Cotton, Coffee, Tea, Maize, Rice, Cassava, Beans, Fish, Beef, Milk, Citrus and Bananas. Government will also invest in water for production infrastructure to boost commercial agriculture and industrial activities. Emphasis is on construction of large and small scale water schemes for irrigation, livestock and rural industries.

The Petroleum (Oil and Gas) sub-sector targets to “increase oil and petroleum related wealth by establishing refining and distribution infrastructure”. These interventions are likely to have adverse impacts on the biodiversity resources through clearing of large areas to facilitate infrastructure development. In order to address the negative impacts, the NDP suggests to, “Improve protection of the environment against oil and gas activities and mitigate the likely effects of Green House Gases (GHG) emissions”<sup>50</sup> through “Strengthening the implementation of the Albertine Graben Environmental Management Plan”<sup>51</sup>. This Plan is a monitoring tool providing a number of selected parameters and indicators that should be used in monitoring environmental changes caused by oil and gas activities, based on “Valued Ecosystem Components”. However, it does not address itself on the application of the mitigation hierarchy to ensure NNL/NG of biodiversity.

For infrastructure development, the Plan targets the following:

- construction of the Standard Gauge Railway
- construction of the hydro power dam
- road construction
- construction of oil and gas refinery

The NDP recognizes the importance of ecosystems and biodiversity and their contribution to, “food production, tourism and the services sector”<sup>52</sup>, and environmental management as critical for sustaining

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<sup>49</sup> Para 3 of the NDP II

<sup>50</sup> para 519 of the NDP II, under Section 8.2 (Petroleum)

<sup>51</sup> Objective 6 under Table 8.2.2 of the NDP II

<sup>52</sup> Para 214 of the NDP II

the benefits from nature to support the country's economic growth. However, from its own assessment, the NDP also notes that, "Progress has also been slow in reducing biodiversity loss"<sup>53</sup>.

## **6.2 Sectoral and Local Governments Planning Frameworks**

### **a) National Biodiversity Strategy and Action Plan (2015-2025)**

The National Biodiversity Strategy and Action Plan (NBSAP) is a national framework for managing biodiversity, hosted by the National Environment Authority as the focal point for the Convention on Biological Diversity (CBD). The Vision of National Biodiversity Strategy and Action Plan 2015 - 2025 (NBSAP II) is "To maintain a rich biodiversity benefiting the present and future generations for socio-economic development" and the goal is "To enhance biodiversity conservation, management and sustainable utilisation and fair sharing of the benefits". Both the Vision and Goal of NBSAPII support implementation of measures along the mitigation hierarchy.

The priority areas for the NBSAP II are:

- (i) Restoration of degraded ecosystems (wetlands, forests, rangelands, hilly and mountainous areas)
- (ii) Preventing extinction of threatened/endangered species and curbing illegal wildlife trade
- (iii) Building capacity for effective implementation of the access and benefit sharing arrangements
- (iv) Managing pollution and invasive alien species
- (v) Research, awareness, information sharing and valuation of biodiversity and ecosystem services
- (vi) Mainstreaming biodiversity into sectoral, cross-sectoral and district development plans
- (vii) Enhancing participation of indigenous peoples and local communities, women, men and youth in the implementation of NBSAPII
- (viii) Building capacity of local governments for effective implementation of NBSAPII at the district level
- (ix) Capacity enhancement, regulatory framework and public awareness on biotechnology and biosafety
- (x) Resource mobilization for implementing NBSAPII

Strategic objective 3 which aims to put in place measures to reduce and manage negative impacts on biodiversity can also be used to support implementation of measures along the mitigation hierarchy. Among the strategies for achieving Objective 3 include: improving management effectiveness of Protected Areas; improving and support management of fragile and degraded ecosystems outside PAs; identifying and putting in place measures for protection of threatened and vulnerable species; improving management of agricultural practices, forests and aquaculture for biodiversity conservation and sustainable use; monitoring and supporting management of pollution and waste in vulnerable ecosystems; and putting in place eradication and control measures for alien invasive species. The NBSAP provides specific national targets under objective 3 as indicated in Box 2.

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<sup>53</sup> Paras 214 and 319 of NDP II

**Box 2: National targets on Biodiversity conservation in Uganda**

- By 2020, at least 17% of terrestrial and inland water ecosystems in Uganda are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas for socio-economic benefit of the population
- 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% of degraded ecosystems
- By 2020, the extinction of known threatened species plants and animals inside and outside protected areas has been prevented and their conservation status improved
- By 2020, The genetic diversity of cultivated plants and domesticated animals including their wild relatives and other socio-economically valuable species conserved
- By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero to reduce degradation
- By 2020, management plans are in place and implemented for areas under agriculture, aquaculture and forestry
- By 2020, pollution levels in critical urban ecosystems has been brought to levels that are not detrimental to ecosystem function and biodiversity
- By 2020, invasive alien species harmful to biodiversity, socio-economic development and human health are managed to prevent their introduction and establishment
- By 2020, the impacts of fisheries activities on fish stocks, species and ecosystems are within safe ecological limits
- By 2020, fish are managed and harvested sustainably, legally, overfishing is avoided and recovery plans and measures are in place for all depleted species.

*Source: NEMA, 2016: The National Biodiversity Strategy and Action Plan II*

The NBSAP does not specifically provide for requirements for NNL/NG outcomes of biodiversity. There is no guidance on the application of the mitigation hierarchy to ensure NNL/NG of biodiversity. Specifically, there are no options suggested to address the threats at their various levels of impact. Payment for ecosystems services (PES) and biodiversity offsets are mentioned only as strategies for innovative financing mechanism, but not directly as options for mitigating biodiversity loss or incentives for ensuring NNL/NG of biodiversity. However, objective 2 provides for enhancing capacity for research, monitoring, information management and exchange on Biodiversity. A national biodiversity databank to identify critical biodiversity areas, ecosystems, and that can provide information to guide decision making for biodiversity conservation is housed at Makerere University. Although most research data is scattered in various research institutions and private organizations/individuals, it is hoped that the researchers will always contribute their findings to this databank. The data bank is important in the assessment of NNL/NG of biodiversity; however, it is still a challenge to mobilize data into the data bank to make it a one-stop center, given the issues of ownership and financing the research. There is need therefore to undertake resource assessment to enrich the National Biodiversity Databank to guide decisions on the mitigation hierarchy.

**b) National Forestry Plan 2011/12 – 2021/22**

The Vision of the Forestry sector is “A sufficiently forested, ecologically stable and economically prosperous Uganda”, and the Goal is to achieve “An integrated forest sector that achieves sustainable increases in economic, social and environmental benefits from forests and trees by all the people of Uganda, especially the poor and vulnerable”. The main objectives of the NFP are to:

- Enhance the capacity of forestry institutions to enable them effectively perform their mandates

- Increase the forest resource base by increasing forest cover to the 1990 levels
- Increase economic productivity of forests and employment in the forestry sector
- Raise incomes for households through forest-based initiatives, and
- Restore and improve ecosystem services derived from sustainably managed forests

The NFP does not have direct reference to biodiversity offsets or>NNL/NG of biodiversity. A few strategies are useful for implementing biodiversity offsets. It refers to mitigation measures such as restoration of natural forests (Program 3).

- Also forest research – undertaking specific studies to fill information gaps (program 8). It can be assumed that environmental undertaken to guide biodiversity offsets
  - technologies development – develop mechanisms for transfer of technologies – (assume PES; standard operating procedures etc. offsets would work with these.
- Program 11 – restore the physical integrity of forests in protected areas
- Program 12 – forest financing- develop economic instruments for funding responsible forest management. Offsets assumed to be one of these instruments

#### Environment

- Conduct studies on specific functions of forestry in conservation of the environment
- Scale up afforestation and reforestation projects in line with CDM arrangements
- Promote climate change mitigation and adaptation implementation through public-private partnership arrangement

#### Gap

- Does not mention the concept of no net loss of biodiversity mitigation hierarchy, although it talks about sustainable forest management
- Not mention on the biodiversity offset, and hence no guidance on mitigation hierarchy, although it mentions restoration
- The Plan states that the NFP will be reviewed to take into account emerging issues every five years in line with the five-year NDP period. The second NDP runs from 2015/16 – 2019/20, but the NFP has not been revised to date. The revision of the NFP provides an opportunity to lay concrete strategies for implementing the mitigation hierarchy and ensuring>NNL/NG of biodiversity.

#### c) Agricultural Sector Development Strategy and Investment Plan (SIP)

The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) is responsible for the agricultural sector. In the 2000's, the sector has aimed at transforming subsistence farming to commercial agriculture, first through the Plan for Modernization of Agriculture (PMA), between 2001 and 2009, and later through the Agricultural Sector Investment Plan (SIP). The Vision for the Agricultural Sector Development and Investment Plan (2010/11 – 2014/15<sup>54</sup>) was “A Competitive, Profitable and Sustainable Agricultural Sector” through the development objectives of (i) increasing rural incomes and livelihoods, and (ii) improving household food and nutrition security. The main Programmes were (i) Enhancing production and productivity; (ii) Market access and value addition; (iii) Improving the enabling environment; and (iv) Institutional strengthening in the sector.

In 2001/2 Government initiated a strategy to support a number of enterprises to increase volumes and quality for the export markets. Since then, the sector has pursued a commodity-focused approach,

<sup>54</sup> Ministry of Agriculture, Animal Industry and /fisheries (2010). Agriculture Sector Development Strategy and Investment Plan (2010/11 – 2014/15). July 2010.

applying it to selected commodities in the ten agricultural production zones. Between 2001 and 2009, the promotion of palm oil in Kalangala district, and Kaweri Coffee in Mubende acting as nucleus for coffee farmers in Mubende and Mityana districts, both of which were based on public private partnerships, were reported to have yielded “benefits accruing to both the main investors and hundreds of small scale out-growers”<sup>55</sup>. Since then, there has been increased focus on commodity approach. The 2010 – 2015 SIP focused on export crops (coffee, tea, cotton); cereals (maize, rice); fish; legumes (beans); tubers (cassava, irish potatoes); livestock (dairy cattle, beef cattle, goats and poultry); fruits (citrus, pineapples, apples) and bananas. The same commodities are the focus in the Agricultural Sector Strategic Plan 2015/16 – 2019/20<sup>56</sup>, which aims at increasing production and productivity of these commodities, especially in terms of increasing the annual acreage cultivated through, among other strategies, public private partnerships (PPP) and agricultural mechanization (e.g. use of tractors and draft animal power).

The expansion of agricultural acreage comes with clearance of large expanses of land, which is particularly enhanced through mechanization. The greatest land clearance is usually done by the many small-scale farmers who do not need to undertake an EIA, and hence are not clearly conscious about the concerns of the mitigation hierarchy.

#### **d) Water Sector Investment Plan (2009)**

The Vision for the water sector is “Sound management and sustainable utilisation of water and environment resources for the betterment of the population of Uganda” and the Mission is “To promote and ensure the rational and sustainable utilization, development and effective management of water and environment resources for socio-economic development of the country”.

The water sector covers water resources management, domestic water supply, sanitation and water for production. Under Water for Production (WfP), the Plan proposes to undertake rehabilitation and revitalization of the existing storage facilities and irrigation schemes in cooperation with the districts and MAAIF, as well as Implementing the Integrated Water Resource Management and catchment management planning to guide water infrastructure development. The irrigation schemes are particularly important in relation to the management of biodiversity. Among the strategies that address environment issues is the development of catchment management and monitoring plans for effective protection of the catchments. It also considers environment impact assessments “... in accordance with the Environment Act Cap 153, 3<sup>rd</sup> Schedule...”

#### **e) MOWT Strategic Investment Plan**

The Ministry of Works and Transport Strategic Work Plan (2011/12 – 2015/2016) covers the Works and Transport sub-sectors. The Vision of the Plan is to provide reliable and safe works, transport infrastructure and service. The Plan covers the following key areas under the mandate of the Ministry:

- Transport infrastructure development;
- Transport service by road, rail, water, air and pipeline;
- Management of public works, including Government structures, and
- Promoting good standards in the construction industry.

Under the Quality Assurance and Construction Standards, the Plan proposes to undertake monitor compliance to environmental and social standards, with a specific budgetary provision. There is also a

<sup>55</sup> Ministry of Agriculture, Animal Industry and Fisheries (2010) ibid

<sup>56</sup> Ministry of Agriculture, Animal Industry and Fisheries (2016). Draft Agriculture Sector Strategic Plan. February 2016



provision for carrying out Environmental and social Impact Assessments in the various planned activities, which is important for identifying environmental issues and determination of the relevant mitigation measures. However, there is no specific reference to the need for biodiversity offset as a measure for ensuring NNL/NG of biodiversity, although the works usually have adverse impacts.

### **6.3 Capacity Building**

- Most staff from various institutions are not clear about biodiversity offsets, how they function and how they contribute to the concept of NNL/NG of biodiversity. This is further elaborated in the Capacity and experience gap analysis report.

### **6.4 Design and Operationalization of Conditions for Licensing/Concessions/Permits**

A number of laws require relevant authorities to issue licenses or permits to authorize specific activities. While issuing the licenses/permits, additional conditions may be annexed to provide in-depth prescriptions of responsibilities and benefits related to the permit or license. For instance, under forestry for a tree planter to use a CFR for growing trees he must ensure that there is protection of biodiversity rich sites, ensure fire protection and may not use the taungya system. So far the conditions emphasize the application of MH only to the extent of avoidance, minimization and restoration. NNL/NG in general are not integrated as part of the Additional Conditions in the Permits/licences/concessions.

### **6.5 Factors critical for ensuring NNL/NG beyond the laws and Policies**

#### **6.5.1 The concepts of biodiversity offset and mitigation hierarchy are not yet understood among actors**

The concepts of “mitigation hierarchy” and “biodiversity offset” are relatively new in Uganda. Many actors, including policy decision makers, have not yet grasped what they imply, how to calculate anticipated biodiversity losses to ensure NNL/NG and how to design and implement such offsets to ensure the delivery of NNL/NG outcomes of biodiversity. The application of mitigation measures is gaining ground with the promotion of the objective of “no net loss” of biodiversity by the Business and Biodiversity Offsets Programme (BBOP), a partnership of companies, governments and conservation experts established in 2004. BBOP has developed a Standard on Biodiversity Offsets and other guidelines to help the private sector on the application of the principles of avoiding; minimizing; restoration/rehabilitation and biodiversity offsets/compensation as a mitigation hierarchy for addressing the negative impacts of their business activities for the achievement of NNL/NG of biodiversity. The guidelines are recent (largely developed between 2009 and 2012), and have not been publicized widely for adoption among policy makers.

There has been some attempt to establish what is called an offset, such as the Kalagala offset that was supposed to offset the loss in biodiversity resources resulting from the development of Bujagali Hydro-power Plant along River Nile. However, first the “offset” seemed to have focused more on the lost waterfalls, but not on assessed loss of biodiversity within the Bujagali power site. There was no resource valuation at the development sites to establish the nature and magnitude of biodiversity loss that would result from the development. Hence the “offset” was not based on assessed residual adverse effect and quantification of losses. In such circumstances, it is difficult to demonstrate how the biodiversity losses would be balanced by the offset to achieve no net loss or a net gain. Secondly, rather than an offset in real terms, the Kalagala Offset stands as contribution of financial resources by the developers for the relevant resource managers to undertake management activities within or outside the conservation area where development is taking place. Some aspects of maintaining the protected areas contributing to the watershed system (Mabira,) were considered in the Kalagala Offset Plan probably as interventions

of international best practice as required by the International Development Association/World Bank. This could be construed as Uganda's experience with project finance under IFC Performance Standard 6. Through the Indemnity Agreement with IDA/World Bank (2007), Uganda Government was committed, among other things, to conserve through a sustainable management programme and budget, the present ecosystem of Mabira Central Forest Reserve, Kalagala Central Forest Reserve and Nile Bank Central Forest Reserve. The funds secured from the developers are transferred to Ministry of Water and Environment to implement management activities within CRFs, including boundary maintenance, restoration planting, ecosystem assessment, wetland restoration activities, etc.). It would have been interesting to examine whether the funds are actually spent against a management plan, especially to establish how it contributes to achievement of NNL/NG of biodiversity.

Similar trends were observed with the development activities within the Wildlife Conservation Areas (WCAs) – National Parks and Wildlife Reserves which are not directly addressing the MH and the NNL/NG of biodiversity such as:

- The Mbarara-Nkenda transmission line which passes thru QENP – most of the money compensated to UWA was used to address the long-standing issues with the settlers within Katonga Wildlife Reserve by compensating the land owners.
- Mt Elgon – City hydropower (a mini-power station) – it is expected that the financial contribution by the developers will be used for restoration planting of 70 ha of the degraded ecosystem within the NP, which is a catchment area and important for stabilizing the landscape.

#### **6.5.2 International best practice - a trigger for biodiversity offsets, not the national policies and laws**

Currently, the strongest trigger for biodiversity offsets in the country is the requirement by international Financing Agencies such as World Bank to comply with international standards of best practice. In particular, the International Finance Corporation requires the clients to apply the IFC Performance Standards, which articulates the Corporation's strategic commitment to sustainable development. Performance Standard 6 specifically covers Biodiversity Conservation and Sustainable Management of Living Natural Resources. Because they are tagged on funding opportunities for development, applying institutions ensure that they do their best to comply, but also the financing institutions ensure that the proposals are accordingly scrutinized for compliance. One example of where international funding processes trigger offsets is the Kalagala offset highlighted in section 4.5.1.

#### **6.5.3 National policies and laws do not focus on the entire mitigation hierarchy and NNL/NG of biodiversity**

Uganda is a signatory to a number of international and regional agreements (Conventions such as the Convention on Biological Diversity, Convention on Combating Desertification) and protocols (e.g., EAC Protocol on Sustainable Development in Lake Victoria Basin, Protocol on Natural Resources Management). It is a requirement that the relevant obligations from these agreements and protocols are taken into account. In particular, the Convention on Biological Diversity imposes a duty on its parties to:

- a) Integrate sustainable utilisation of natural resources into its national strategies and plans and programmes;
- b) Promote in-situ conservation and in particular protect traditional knowledge about conservation and protection of threatened species;
- c) Promote ex-situ conservation;
- d) Promote sustainable use of biological diversity;

- e) Create economically and socially sound incentives for conservation and sustainable utilization
- f) Promote research, training and public awareness and education;
- g) Introduce environmental impact assessment;
- h) Govern access to genetic resource and promote transfer and access technology
- i) Promote bio safety;
- j) Promote international co-operation in the protection of biological diversity under various provisions.

Most of the above provisions are already incorporated in the National Environment Act (Cap 153), the Uganda Wildlife Act (Cap 200), the National Forestry and Tree Planting Act (2003), Even in sectors that impact on biodiversity resources, such as energy, works, roads, housing and urban development, etc., there have been attempts to adhere to the principles of sustainable management by being cognizant of environmental concerns and expressing commitment to apply environmental policies, laws and regulations in addressing them. However in general, the strategies to address the impact of development on biodiversity resources do not apply a holistic mitigation hierarchy approach. Instead, the most common intervention is to undertake restoration activities where ecosystems and natural resources have been degraded.

The preferred method for undertaking impact assessment for a biodiversity offset is as part of a best practice EIA. In effect, the Environmental Impact Assessment provided for under the National Environment Act should serve as the trigger for implementing biodiversity offsets and ensuring the delivery of NNL/NG of biodiversity. Almost all sector policies and laws, including the Investment Code, recognize the need to undertake an EIA prior to any development activities which are likely to have significant impact on the environment. The NEA however does not provide for biodiversity offsets. In addition, the EIA regulations are weak in as far as demanding for the application of the mitigation hierarchy and establishment of biodiversity offsets is concerned. To this end, the EIA regulations do not provide clear guidance on the step-by-step processes to guide the sectors to develop sector-specific EIA guidelines, nor are they compelling enough to ensure that the EIA practitioners adhere to the mitigation hierarchy and the requirement of the biological offsets/compensation where these are necessary.

While addressing the impact of business activities on biodiversity, the BBOP is promoting the use of the Standard on Biodiversity Offsets based on 10 Principles with the associated criteria and indicators. Adherence to the mitigation hierarchy (avoid, minimize, restore/rehabilitate, biodiversity offset/compensate), and achievement of no net loss, or at least gain of biodiversity (Principles 1 and 4). The guidelines to implement the Standard are recent, mainly between 2009 and 2012. Therefore, Uganda's policies and laws, most of which came into force before 2009 were not informed by the BBOP Standard and guidelines, and, there was not much experience with the IFC PS6.

The ongoing revision of the NEA and the EIA regulations is therefore a landmark in facilitating the delivery of NNL/NG of biodiversity. The Environment Management Bill (2016) now integrates the application of the mitigation hierarchy and aspects of biodiversity offsets for achieving NNL/NG of biodiversity outcomes. Similarly, the National Environment (Environmental Assessment) Regulations are being reviewed to include these concepts. These revisions will be the springboard for influencing further changes in other sectors to ensure delivery of NNL/NG of biodiversity.

#### **6.5.4 Lack of incentives to promote the requirements of NNL/NG**

To the developers, the design and implementation of an offset/compensation for achieving NNL/NG of biodiversity means additional costs that they would eagerly avoid unless there are in place sufficient incentives or disincentives to enlist compliance. Section 94 of the National Environment Act provides for

payment of a performance deposit bond where activities and industrial plants have or are most likely to have significant adverse effects on the environment. To this effect, Section 94 (2) provides that, “The Minister responsible for finance may, on the advice of the board and the policy committee, prescribe that activities and industrial plants identified under subsection (1) pay such deposit bonds as he or she may determine, to act as security for good environmental practice”. According to Section 94 (3), “The deposit bond determined in accordance with subsection (2) is refundable to the operator of the activity or industrial plant, after such duration as the Minister may determine where the operator has observed good environmental practice to the satisfaction of the authority”.<sup>57</sup> There is nothing beyond these provisions on performance bonds to commit developers to ensure NNL/NG of biodiversity. As a result, there is more likelihood for the developers to evade and go away without indictment. There are no known cases where the provision on performance bonds has been invoked mainly because there are no guidelines to operationalize the provision.

In cases where the development is a public sector investment, the cost for biodiversity offset should be included in the bidding process as a component of the overall cost of the contract, so that it should not reduce the profitability of the contractor. This cost should then be borne by the public (tax) for the public good derived from the ecosystem functions. However the current bidding guidelines do not incorporate such costs in the bills of quantities and therefore any suggestions for offsets after the bidding would affect the profitability of the developer and in many cases this cost could be evaded. The issuance of licenses/permits or concessions by resource managers could serve as additional opportunities to require NNL/NG outcomes of biodiversity. Responsible Ministers are required by law to prescribe additional conditions under these instruments as part of the terms to be fulfilled by the holders. Failure to comply with such conditions would result in punitive measures against the holder, including, among other things, cancellation of the license/permit/or concession.

#### **6.5.5 Challenges Beyond policies and Laws in addressing NNL/NG**

Biodiversity offsets refer to the conservation activity that takes place outside the geographic boundaries of a development site in order to compensate for unavoidable harm, in addition to any mitigation or rehabilitation that may take place on that site. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people’s use and cultural values associated with biodiversity<sup>58</sup>. Discussions with key actors in biodiversity conservation revealed that the achievement of NNL/NG of biodiversity is difficult, given that the greatest sources of biodiversity resources are located within the protected areas. Such a protected area cannot serve as an offset, since it already contains specific biodiversity it protects. Conversely the biodiversity resources on privately owned land is faced with high degradation, which makes it difficult to find an alternative area with “like-for-like” characteristics as required for an offset.

The management of Biodiversity sites as pristine areas faces a lot of challenges from increasing population pressure on the ecosystem resources, including the possible secondary developments after an offset has been established. To this end, it is difficult, if not impossible to get a like-to-like scenario of ecosystems to act as offsets. Other constraints include:

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<sup>57</sup> It was not possible to establish whether Section 94 has ever been invoked.

<sup>58</sup> Ten Kate, K. and Crowe, M.L.A. (2014). Biodiversity Offsets: Policy options for governments. An input paper for the IUCN Technical Study Group on Biodiversity Offsets. International Union for the Conservation of Nature and Natural Resources; Gland, Switzerland: IUCN. 91pp.

- Lack of capacity of the institutions to manage biodiversity
- Lack of attachment of value to biodiversity and ecosystem services – hence there is no incentive to protect biodiversity. Ecosystems provide us many services for free. There is need to put an economic value on biodiversity in order for people to understand how important the environment is to humanity and what costs and benefits there can be in doing (or not doing) something.
- Limited political will to support biodiversity conservation amidst the pressing demand for economic development.

## **7 CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 Conclusions**

#### **7.1.1 Summary of priority gaps in law and policy with respect to NNL/NG and the requirement for implementing the mitigation hierarchy**

Analysis of Uganda's laws and policies shows that there is no legal or policy provision that explicitly requires NNL/NG of biodiversity. This is a major weakness. Although in some respects, different laws and policies require preventive or mitigation measures to be undertaken, they don't ensure the full application of the mitigation hierarchy and cannot therefore guarantee NNL/NG of biodiversity. The concepts of NNL/NG and mitigation hierarchy are therefore not yet fully integrated in Uganda's current legal and policy framework.

The requirement for implementing MH or measures to ensure NNL/NG of biodiversity is not fully integrated into Uganda's EIA system. The main focus of the EIA system is on measures for eliminating, minimizing or mitigating adverse impacts. It does not go the full length to cover biodiversity offsets/compensation. The System does not also offer clear methods and procedures for conducting biodiversity assessments. Additionally, the actual conduct of EIAs is typically a short period and does not provide for sufficient time to undertake biodiversity assessments that can inform recommendations for biodiversity offsets, especially with regard to the principle of "like" for "like".

Although some sector EIA guidelines, such as for the water sector, contain provisions on the MH that are important for ensuring NNL/NG, these are not stated as requirements nor are they sufficiently backed by law.

The requirement for implementing MH or measures to ensure NNL/NG of biodiversity are not fully integrated into the licence and permits system in the different sectors, except where it comes out of a specific EIA study recommending the same.

Uganda's laws and policies are also weak because they don't provide any incentive to the private land owners to ensure that when they carry out developments on their land, they ensure NNL/NG. This is worsened by the land tenure systems. The land tenure systems provided for in Uganda's land laws are not conducive for undertaking NNL/NG measures. The customary tenure is not a settled tenure. Land held under customary tenure can be converted to freehold. Mailo land tenure creates a system of double rights over the same piece of land. It permits the separation of ownership of land from ownership of developments on land made by a lawful and bona fide occupant. Under this kind of tenure, applying the mitigation hierarchy including offsets is difficult, because of the uncertainty of tenure.

While Uganda's legal system provides for performance bonds to ensure compliance with environmental laws and license conditions there are no specific guarantees towards ensuring that in cases of non-performance, the bonds can be used to facilitate NNL/NG of biodiversity.

Section 41 of the National Environmental Act requires NEMA in consultation with the Lead Agency to issue guidelines and prescribe measures for the conservation of biological diversity. However, to-date, no such guidelines have ever been issued. These guidelines provide opportunity for integration of NNL/NG and the mitigation hierarchy in the management of Uganda's biodiversity.

### **7.1.2 Summary of Existing provisions that seem best suited for requiring or supporting NNL/NG.**

- Section 2 of the National Environment Act provides for principles of environment management. This section is suited and can support NNL/NG by explicitly including the requirement for mitigation hierarchy.
- Section 19 (3) requires environmental impact assessments to be undertaken by developers where the lead agency, in consultation with the executive director, is of the view that the project to be undertaken may have an impact on the environment; is likely to have a significant impact on the environment; or will have a significant impact on the environment. This provision is best suited and can support NNG/NG by additionally requiring that all developers of such project should apply the mitigation hierarchy in dealing with the environmental impacts.
- Regulation 14 (1) (i) of the Environment Impact Assessment Regulations provides for things that should be included in the Environment Impact statement. Among the things provided for include; "...measures proposed for eliminating, minimizing or mitigating adverse impacts". This provision can be improved further to cater for the full range of the MH including biodiversity offsets/compensation.
- Section 21 of the National Environment Act provides for consideration of the environmental impact statement by the lead agency. To ensure NNL/NG, in considering NEMA should take into account compliance by the developer with the mitigation hierarchy to ensure application of appropriate avoidance, minimization and on-site rehabilitation or restoration measures before allowing the application of biodiversity offsets or other offset and compensation mechanisms.
- Section 41 of the National Environment Act requires NEMA in consultation with the lead agency, to issue guidelines and prescribe measures for the conservation of biological diversity. The section further provides some of the things that the guidelines may prescribe. This section and the envisioned guidelines are suited for requiring NNL/NG and enforcement of mitigation hierarchy
- Section 18 of the Investment Code Act provides for implied terms and conditions of investment licences. Under Section 18 (2) d, it is implied that the investor will take necessary steps to ensure that the operations of his or her business enterprise do not cause injury to the ecology or environment. This section is also suited to imply in the investment license a requirement that the investor will apply the mitigation hierarchy and ensure NNL/NG
- Section 20 of the Investment Code Act provides for revocation of investment licences. Failure to take measures to ensure NNL/NG should be one of the grounds upon which an investor's licence can be revoked.
- Sections 24 and 32 of the Mining Act provide for the obligations of prospecting and exploration licence holders respectively. These provisions can support NNL/NG by requiring the licence holders to institute measures to ensure NNL/NG
- Section 30 of the Mining Act provides for the renewal of exploration licence. Section 30 (5) provides circumstances under which the Commissioner may reject an application for renewal. Among these should include failure to institute measures that ensure NNL/NG.
- Section 109 of the Mining Act provides that there shall be included in every exploration license or mining lease a condition that the holder of such license or lease takes all necessary steps to ensure the prevention and minimization of pollution of the environment in accordance with standards and guidelines prescribed under the National Environment Statute 1995. This provision is suited to support NNL/NG if it were to require the holder takes steps along the entire mitigation hierarchy.
- Section 110 (1) of the Mining Act, provides that there shall be included in every exploration license or mining lease, a condition that the holder shall submit an environmental restoration plan of the exploration or mining area that may be damaged or adversely affected by his or

exploration or mining operations. According to Section 110(2), among the things to include in the restoration plan include a detailed timetable of steps to be undertaken which depending on the particular case could include reinstatement, leveling, re-vegetation, reforestation and contouring of the affected land. This provision can be used to support NNL/NG by requiring that plan includes steps to restore full biodiversity as it were before.

- Section 112 (1) of the Mining Act provides for execution of environmental performance bond to ensure fulfillment of all environmental requirements under the Act. Section 112 (2) provides that the factors taken into account to determine the amount of the bond including the environmental restoration plan, the topography, geology of the site, hydrology and re-vegetation. This provision is suited to promote NNL/NG. This can be done by explicitly adding costs of establishing like-for like ... as one of the factors
- Section 47 (2 &3) of the Petroleum (Exploration, Development and Production) Act 2013 provides that before opening up of new areas for petroleum activities assessment of impact of petroleum activities on the environment and of possible risks of pollution among other things is supposed to be made
  - Section 49 (1) in issuing reconnaissance permits, Minister can impose such conditions as he/she determines fit. This should include requirement of NNL/NG/mitigation hierarchy
  - Section 58 (1), Minister may grant exploration licence subject to such conditions as he or may determine. This should include requirement of NNL/NG/mitigation hierarchy
  - Section 71 (3) application for grant of petroleum production licence must be accompanied by a field development plan which among other things should include the necessary measures to be taken for the protection of the environment. There should be specific measures for biodiversity conservation informed by the mitigation hierarchy.
  - Section 75 (1) petroleum production licence may be granted in such manner and on such conditions as the minister may determine. This can include requirement of NNL/NG/mitigation hierarchy.
- Section 41 (2) of the National Forestry and Tree Planting Act provides that in granting a licence to cut, take, work or remove forest produce from a forest reserve or community forest; or the sustainable utilisation and management of the forest reserve or community forest, a responsible body shall prescribe terms, conditions, rights, fees for a licence granted. Requirement for NNL/NG should be one of the additional conditions of the licence.
- Part IV (Sections 43-54) of the Public Procurement and Disposal of Public Assets Act 2003 provide for basic principles of public procurement and disposal. There should be included a principle requiring the mitigation hierarchy in the procurement and disposal of assets to ensure NNL/NG. Additionally, Section 60 provides for statements of requirements, including terms of reference, scope of works, drawings, bills of quantities or their equivalent. This could be suited for promoting NNL/NG by ensuring integration of the application of the mitigation hierarchy for the achievement of NNL/NG of biodiversity.
- Section 38 of the Physical Planning Act 2010 provides for approval or refusal of development permission by local planning committee. For developments that are likely to have significant impact on biodiversity, approval should be made subject to instituting measures that ensure NNL/NG



### **7.1.3 Summary of Gaps and provisions that run counter to achieving NNL/NG and should be considered priorities for amendment/repeal**

Overall, although Uganda's legal and policy framework (with the exception of the Uganda Wildlife Policy 2014) does not require NNL/NG, it is supportive and provides a good foundation for introducing reforms to explicitly require NNL/NG and implementation of the mitigation hierarchy. This conclusion notwithstanding, Section 37 of the Physical Planning Act 2010 stands out as running counter to achieving NNL/NG. It provides that where a development application relates to matters that require an environmental impact assessment to be carried out, the approving authority or physical planning committee may grant preliminary approval of the application subject to the applicant obtaining an environmental impact assessment certificate in accordance with the National Environment Act. This provision is inimical to efforts to achieve NNL/NG in that the granting of the preliminary approval may hinder the pursuance of the EIA. Additionally, basing on a preliminary approval, developments may be undertaken that could cause irreversible damage which may not be solved by a subsequent EIA. Also, the land tenure systems provided for in the Land Act (1998) are not conducive for undertaking NNL/NG measures. Section 3 of the Land Act 1998 recognizes the four forms of land tenure in Uganda i.e., customary, leasehold, freehold, and *mailo*. Customary tenure is not a settled tenure and yet it covers over 70% of the land area in the country. Besides, a lot of biodiversity resources are on land held under customary tenure. Land held under customary tenure can be converted to freehold. Mailo land tenure creates a system of double rights over the same piece of land. It permits the separation of ownership of land from ownership of developments on land made by a lawful and bona fide occupant. Under this kind of tenure, applying the mitigation hierarchy including offsets is difficult, because of the uncertainty of tenure.

Apparently, the policies and laws do not directly run counter to the implementation of the mitigation hierarchy of the achievement of NNL/NG of biodiversity. However, in practice, many provisions or strategies in the sector plans, which are the instruments for implementing the policies and laws, clearly promote the destruction of biodiversity and take no precautionary mitigation.

### **7.1.4 Emerging Provisions**

Some of the emerging Bills and draft policy frameworks for managing the environment and natural resources are however now explicitly providing for the requirement to implement the mitigation hierarchy and biodiversity offsets to ensure NNL/NG of Biodiversity outcomes. This is true of the Draft National Environment Management Policy for Uganda (2014), The National Environment Bill 2016 and the Draft National Environment (Environment Assessment) Regulations 2016. However, these efforts need to be accompanied by relevant national Guidelines such as Environmental Impact Guidelines and Strategic Environmental Assessment Guidelines in order to provide practical step-by-step protocols to be followed by practitioners.

### **7.1.5 Factors critical for ensuring NNL/NG beyond the laws and Policies**

Beyond the laws and policies, there are issues that must be addressed for Uganda to establish a robust system for ensuring a NNL/NG of biodiversity. Key among these include: (i) awareness of the concept of biodiversity among all stakeholders (ii) building the institutional capacity of NEMA and sectoral agencies (iii) political will and funding (iv) attaching value to biodiversity and ecosystem services, and, (v) creating incentives to promote NNL/NG of biodiversity.

## 7.2 Recommendations

1. There should be a mandatory legal requirement for developers of projects or operators of activities likely to cause adverse effects to biodiversity to implement the mitigation hierarchy and ensure NNL/NG. The better approach is to amend the existing National Environment Act and other sectoral laws to include the requirement of NNL/NG. Amendments take little time to effect compared to enacting new legislation altogether. Already the National Environment Bill 2016 and the Draft National Environment (Environment Assessment) Regulations have provisions to this effect. Including this requirement in relevant sectoral laws ensures that NNL/NG gets to be enforced in as many sectors as possible, especially those which impact on biodiversity.
2. The laws and regulations related to EIA and SEA should also explicitly provide for biodiversity assessment, the methods of conducting the same and the timeframe to enable effective biodiversity assessment.
3. A number of policies and laws, (e.g. the National Environment Bill; the National Environmental (Environment Impact Assessment) Regulations; the Wetland policy; irrigation policy, etc.) are being reviewed. WCS should consider these as important opportunities for proactive dialogue to guide the revision process to integrate the MH and the concepts of NNL/NG of biodiversity.
4. The license and permits system in the relevant sectors should where appropriate include the requirement of NNL/NL and application of the mitigation hierarchy in the permits and licenses issued to developers. Failure to implement mitigation measures should be a ground to revoke the license or permit and should be a ground for non-renewal
5. The legal provisions requiring NNL/NG and implementation of the mitigation hierarchy should be supported by comprehensive guidelines that explain the concepts of NNL/NG and mitigation hierarchy, a step-by-step approach to the implementation of the mitigation hierarchy, options for biodiversity offsets/compensation, etc. Based on the broad guidelines, each sector should develop sector-specific EIA guidelines which address the application of the mitigation hierarchy for achieving NNL/NG of biodiversity. Similarly, Guidelines for Strategic Environmental Assessment should be developed to provide a framework for use by the various sectors.
6. The land, environmental and physical planning laws should establish an incentive system for private land owners to ensure NNL/NG in respect of developments on their land. This incentive system should also encourage the private land owners to create conservation gains on their land.
7. The requirement of NNL/NG should be fully integrated in the refundable environmental performance bonds. In addition to the mandatory requirement of NNL/NG, developers of projects and operators of activities likely to have adverse impacts on biodiversity should be required to execute refundable performance bonds systems as security that they will ensure NNL/NG. In the event that they fail, the bond can be confiscated and used to restore or establish offsets.
8. A National biodiversity data bank is important for guiding decisions on the mitigation hierarchy. Accordingly the national data back should be strengthened to be able to package usable information for NNL/NG assessments. The data should be geo-referenced in order to map biodiversity occurrence, including sites of highly irreplaceable and threatened species or ecosystems. High vulnerability (e.g., critically endangered or endangered status of species on the IUCN Red List) means higher risk that impacts on this biodiversity that may be non-offset-able and so in such instance impacts should be avoided and minimized in accordance with the mitigation hierarchy.

9. In line with the Uganda Wildlife Policy 2014, the Uganda Wildlife bill, 2016 should be further reviewed to explicitly provide for the MH and NNL/NG of biodiversity.
10. For effective operationalization of the MH in Uganda there is need to address the non-legal and policy issues which influence implementation including (i) creation of awareness of the concept of biodiversity amongst all stakeholders (ii) building the institutional capacity of NEMA and sectoral agencies (iii) enhancing political will and increasing funding for environmental monitoring and compliance (iv) promotion of total economic valuation of ecosystems, and, (v) creating incentives to promote NNL/NG of biodiversity.

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## **ANNEXES**

### **Annex 1: Names, job titles and contacts of individuals for sources of information**

(as well as individuals who may not have been interviewed but were identified by the consultant as important focal points on the issues covered in this study within relevant organizations).

### **Annex 2: List of interviews and meetings and corresponding summary notes**

(Where possible)

### **Annex 3: List of laws, policies and other documents analyzed**

(each showing the relevant government department(s) or agency (ies) responsible for them, including those which the consultants think are relevant but may not have had enough time to review, or they may be indirectly important to the subject)

**ANNEX 1: Names, Job Titles and Contact Details of Individuals that were Interviewed/Possible sources of information**

<b>Name of Respondent</b>	<b>Institution (contact) and Job Tittle</b>
Mr. Mafabi Paul	Director, Environment Affairs, Ministry of Water and Environment
Mr. Margret Adata	Commissioner, Forest Sector support Department, Ministry of Water and Environment (MWE)
Mr. Collins Oloya	Commissioner, Wetlands Department; Ministry of Water and Environment
Eng. Chong	Commissioner, Department of Water Development, Ministry of Water and Environment
Ms. Christine Akello	Deputy Executive Director, National Environment Management Authority
Mr. Francis Ogwal	CBD focal point, and Biodiversity Specialist- National Environment Management Authority
Mr. Waiswa Ayazika Arnold	EIA specialist, National Environment Management Authority
Ms. Sarah Naigaga	Legal and Policy, NEMA
Mr. Levi Etwodu	Director, Natural Forests – National Forestry Authority, MWE
Ms. Justine Namara	Uganda Wildlife Authority
Mr. Joseph Ocatum	Ministry Trade, Industry and Cooperatives
Mr. Stephen Muwaya	UNCCD focal point and SLM coordinator, Ministry of Agriculture, Animal Industry and Fisheries
Mr. Kaggwa Ronald	Production services – National Planning Authority
Ms. Sophie Kutegeka	International Union for the conservation of Nature and Natural Resources - IUCN
Mr. Achilles Byaruhanga	Executive Director – Nature Uganda
Mr. Onesimus Mugenyi	Deputy Executive Director, Advocates Coalition for Environment and Development- ACODE
Mr. Kagoda Moses	EIA practitioners Association
Ms. Monica Kateega Seruuma	Environment – Uganda National Roads Authority
Mr. Kamanda	Environment – Uganda National Roads Authority
Mr. Stephen Galima	National Forestry Authority
Mr. Robert Opio	Ministry of Lands, Housing and Urban Development
Ms. Carol Aguti	Ministry of Energy and Mineral Development
Mr. Sam Mwandha	Africa Wildlife Foundation
Mr. Mununuzi Nathan	Ministry of Water and Environment
Mr. Semakula	Uganda Investment Authority
Dr. Robert Kityo	Makerere University - zoology
Dr. Kalema James	Makerere University - Botany
Dr. Panta Kasoma	Jane Goodall Institute
Dr. Bahati Joseph	School of Forestry, Makerere University and Presidential Banana Initiative

## ANNEX 2 List of interviews and meetings and corresponding summary notes

Key Respondent and the Organization	Summary notes of meeting
Ms. Christine Akello – National Environment Management Authority (NEMA)	The Revision of the NEA is in advanced stages and key provisions on the mitigation hierarchy for biodiversity have been discussed and are in the Law. The regulations are also being developed and they provide for biodiversity offsets as well. What is needed now is facilitation for implementation of the provisions in the law and regulations
Mr. Ogwal Francis -NEMA	<ul style="list-style-type: none"> <li>• When talking about offsets, there is need for people to understand what they mean. Many people take offset to mean the monetary compensation given by developers to support management activities. Similarly, the concept of NNL from biodiversity offset is not understood by many stakeholders.</li> <li>• What we have at the moment is a voluntary offset. It is not based on law. It is on the good will of the developers. What we have learnt from others like the Kalagala offset – (also UWA in Mpokya – UMEME) is offsets are looked at as funding.</li> <li>• There is lack of data to determine the exact loss caused by the development activities and guide the design of an offsets to ensure NNL. Such data requires biodiversity inventory and feasibility studies to determine what are to be lost. The feasibilities for offsets, including the ecological, hydrological and cultural values, must be done much earlier ahead of the project design in order to arm the decision makers with the right information for negotiating the selection and design of the offsets. The time of implementing the offset to enhance biodiversity is limited.</li> <li>• The developers must not conduct the studies themselves.</li> <li>• Maintaining the offset. There must be clear conditions to ensure the sustainability of the offset – get the offset to be funded otherwise an offset leads to loss of the offset; so there is need for funding offsets.</li> <li>• Need a lot of political will and Manpower to implement the offset</li> <li>• Misconception about providing money for compensation</li> <li>• In some areas it will be very difficult to implement an offset. As ecosystems are disappearing natural offsets will be difficult to implement.</li> <li>• Difficulties of acquiring land on private land for</li> <li>• With the increasing demand for infrastructure development, biodiversity offsets will become more prominent. The donors will also get more interested in seeing that Government is caring for the environmental issues – Uganda is just an ecosystem that the world is interested in. the challenge is how to make the decision makers understand what an offset means – including the enhancement of biodiversity</li> <li>• Offsets came under the CBD. Implementation through the NBSAP. Biological offsets are the six biodiversity funding mechanism (see document). NEMA is the focal point</li> <li>• Awareness creation of offsets among the lead agencies</li> <li>• Conduct feasibility studies in selected projects or potential projects.</li> </ul>

	<ul style="list-style-type: none"> <li>• SEA – the NEA provides for the development of Strategic Environmental Assessment for all policies, laws and strategic plans</li> <li>• Information – data bank established by NEMA has now been</li> <li>• The EIA – this is done by the developer. It is project specific</li> <li>• Talk to Government to show that offsets are not frustrating development, but to ensure reduced loss of biodiversity – ecosystems. We are not making biodiversity offsets expensive.</li> <li>• The technocrats have little understanding about the mitigation hierarchy and biodiversity offsets.</li> <li>• Working with NGOs, private sector and Government</li> <li>• Need to develop capacity of the environmental inspectors and others – the functions of the inspectors need</li> <li>• To ensure implementation, NEMA stands as an important institution to coordinate and monitor the implementing agency.</li> </ul>
Mr. Waiswa Ayazika Arnold -NEMA	<ul style="list-style-type: none"> <li>• The main law is being revised and biological offsets have been provided for in the bill. However, the actual mechanism of how it will be done is not clear.</li> <li>• The regulations and guidelines must be developed to provide for the necessary guidance. The bill is now with the First Parliamentary Counsel. Tabling the bill is not certain, and hence it is likely that the regulations to operationalize the bill will take longer than had been anticipated. However, the delay is an opportunity to consolidate the review of the regulations to ensure that they effectively provide guidance for implementation of biodiversity offsets. Once Parliament enacts the bill, the regulations, specifically the EIA regulations will be revised to incorporate the aspects to guide the implementation of biological offsets.</li> <li>• The guidelines should specify the step-by-step process of establishing the activities e.g. inventory,</li> <li>• Regulations and guidelines must be developed to provide for this. The law is being revised together with the regulations. Discussions are still on-going; but the practical issues will be with UWA.</li> <li>• Penalties – are they provided for in the law for those activities that do not comply with the provision of biodiversity offsets?</li> <li>• Kalagala Offset is not the best example for Uganda, but we can learn lessons based on any successes and failures.</li> </ul>
Mr. George Lubega – Aquatic Specialist -NEMA	<ul style="list-style-type: none"> <li>• NEMA is starting to implement the aspects of biodiversity offsets, but the challenge is how to calculate the value for the offsets. For instance, the wetlands that exist are degraded, while those with some ecosystem and social-economic value are being affected by illegal activities such as crops, which cannot be included in the calculation for biodiversity offset. Where the activities are permitted, the value is so small.</li> <li>• The lost values need to be restored in a similar and nearby areas to support the continuous provision of ecological functions. For this purpose we need a bigger area. While it could be possible to get an equivalent piece of land for a forest ecosystem, the private ownership of land makes it difficult to get land to conserve aquatic biodiversity. For example in Kampala, apart from Nakivubo and Kinawataka wetlands, most of the wetlands are on private land.</li> <li>• Following the new Act, the regulations are also being revised. There is need to look at additionally the extractive industries such as sand mining, clay mining and brick making; these would be important for consideration of these</li> </ul>



	<p>issues in other Acts. The impacting sections need to be assessed for review such as the mining Act. The next would be developing regulations, then guidelines...</p> <ul style="list-style-type: none"> <li>• There is an issue of data – we need baseline data for any offsets to be effectively implemented.</li> <li>• There is a major issue of the land tenure system; as well as who is paying and who will be paid to get the offset sites.</li> <li>• There is also need to look beyond biodiversity e.g. the inner Murchison Bay on Lake Victoria is a dead system... The issue of NNL in Uganda is theoretical! There is blind fish in Murchison bay – they can no longer see!!!! Biodiversity is not healthy and so we need not only think about biodiversity,</li> <li>• The NNL or NG is hard to achieve – take an example of Entebbe expressway impacting on Lwera... The detailed quarrying industry has no law to protect the hills that provide murram for the roads. The NNL is not applicable to water ecosystems – e.g... the ones in the Nile need to be in the Nile etc... same habitat, same structures and same ecological functions...</li> <li>• Biodiversity on private land needs a strategy for its protection. If a private owner protects the biodiversity; who pays for the cost! There should be national dialogue to implement offsets; even when they are provided for in the laws and eventually in the regulations....Systems must work; Talk to Uganda land commission, a district land Board; Buganda land Board, and other cultural leaders of Bunyoro, Tooro, and Busoga....Impactors such as Naffiri, NFA, and Fisheries.</li> <li>• There is an exercise in NEMA for cancelling titles within the wetland ecosystems. Some of the titles are supposed to be offset. But the challenge is under what instrument would this be done? There is likelihood for the process to be resisted by the affected persons.</li> </ul>
Ms. Sarah Naigaga - NEMA	<ul style="list-style-type: none"> <li>• The nature of the project is one of the triggers for biodiversity offset.</li> <li>• The Biodiversity loss in any development is a given and is determinable. But the timing is the problem – the EIA time which is usually given is not sufficient to meaningful determination of the biodiversity loss due to a proposed project</li> <li>• In the law, we are requiring that the large infrastructure developments in the sensitive areas to undertake the Strategic Environment Assessment (SEA). This will forecast the loss and the likelihood of offsets.</li> <li>• The challenge is that other lead agencies rarely include environment aspects within the SEA; unless they are looking for financing. SEA goes beyond feasibility study and should be the first point of triggering biodiversity offsets.</li> <li>• The EIA should also provide the trigger for an offset. What we do not have are the guidelines. The guidelines should be part of the regulations. We need to develop guidelines that are specific to offsets. In these, include what should actually be compensated, and bring in the elements of the functions of the ecosystem that needs to be valued. There should be systematic scoping of the project</li> <li>• The investment code provides that all investments must be mindful of the environment and as far as possible provide for addressing the issues.</li> <li>• Agriculture – issues of phyto-sanitary and soil quality standards and management regulations; these are available. NEMA is in charge of soil quality standards.</li> <li>• There are various developments – mining and oil/gas. All road development project by UNRA is subject to EIA; and so restore and mindful; feeder roads are a responsibility of the local governments but impacts are thought to be small. The mining Act provides and requires the miners to submit restoration plans. Oil and gas developments also qualify for EIA</li> </ul>

	<ul style="list-style-type: none"> <li>• The EIA guidelines are being revised. Administratively, the EIA guidelines are already broadened to provide for all the stages of oil and gas developments...</li> <li>• EIA processes are not able to trigger biodiversity offsets; but more administrative issues are necessary.</li> <li>• Planning is important – Urban and physical planning guidelines in place; but the rural land use planning are just being finalized.</li> <li>• There is need for capacity building in the institutions to be determine an offset calculation; so that is a gap...</li> <li>• The science behind biodiversity offsets requires practice; and we do not have enough expertise; management of offsets is also important and that they are not targeted by investors....</li> <li>• Biodiversity management is scattered and different institutions are responsible; NEMA is only a coordinating agency and thus has to deal with lead agencies... but UWA is focused on wildlife and tourism; while NFA is on forests – the biased focus in mandate eliminates the responsibilities. The National Environment Act says all lead agencies shall be responsible for their segments but are accountable to NEMA and should report every year!</li> <li>• The implementation of biodiversity offsets would also require a great deal of coordination. The policy framework for Biodiversity management is good enough but the practice is of the law is inadequate....</li> <li>• Build the capacity of the institutions to work on offsets – Is Kalagala really an offset; not anymore – there are projects on the Island – NFA approved a project and NEMA didn't; coordination is an issue. There are examples of a lot of inconsistencies; such as the implementation of Kalagala offset is under the Ministry of Energy and yet it was the developer.</li> <li>• There is approval from the MWE and Ministry of PS to employ a lead agency coordinator within NEMA; so this could lead to more coordination...</li> <li>• The law provides for a compensatory mechanism – for biodiversity loss and not necessarily run for biodiversity offsets...</li> <li>• Wetlands, for example, can be restored through compensatory to restore areas that have been destroyed...</li> <li>• Biodiversity data is also a challenge to ensure that the full range of biodiversity that may be lost in an area is ascertained. A number of studies need to be undertaken, for example for the Jinja express highway, and the standard gauge railway; inventories need to be done!</li> </ul>
<p>Levi Etwodu ( Director Natural forests) and  Stephen Galima- Specialist - NFA</p>	<p>The forestry law does not adequately cover the mitigation hierarchy of biodiversity loss. The closest is the provision that in case of degazettement, any loss should be replaced by an equivalent or better forest land. Infrastructure is taking over forests and it is necessary to have the implementation of biodiversity offsets. It is necessary to specifically address offsets in the law. Such as if a road is passing thru CFRs, trying to assess how much is being lost and asking the institutions to replace the lost biodiversity. Where there is degradation by power lines, that is a loss and slashed all the time...the biodiversity is lost. There is need for a review of our laws for that. For the Standard Gauge Railway (SGR), the NFA had suggested that enclaves in Mabira can be bought and compensated for what the SGR will cover; but discussions are still going on. The Kalagala offset should have given good lessons but it is just beginning to implement the offset activities. The offset activities are helping to demarcate Mabira and specifically also restoring 1500ha of degraded areas of Mabira. Mabira is acting as AN OFFSET OF THE IMPACT OF THE DAM. Other activities include development of the management plan for Mabira; and updating of the landscape approach for the management of Mabira.</p> <p>The ministry (MWE) is the one implementing the Offset under the Directorate of Environment Affairs (DEA).</p>

	<p>The Kalagala offset has taken a landscape approach. The contractors include: Makerere University (Dr. Bahati/Eilu – updating the environmental and socio-economic profile of the area), and other stakeholders. The funds are from World Bank; and seedlings are provided by private people. A quick inventory was done for SGR but not for Bujagali.</p> <p>The katosi water treatment plant is another offset example; the plant in Mola FR and the reservoir in Kisakombe; the strategy is to try to work out a PES contract with the NWSC. The dry land port in Bukasa is also another opportunity for piloting an offset. The intention however is to have a NNL of biodiversity. The impact of water reservoir may not be as severe as a SGR. For the SGR there is an offset planting in Gangu of 200ha; and opening 173 km in other reserves from a compensation for loss in Bujawe. Unfortunately there was no inventory of species.</p> <p>Another aspect is to tap into the 3% water catchment management fund from any water project that is developed. PES would be an option but there is need to develop guidelines including consideration of social issues.</p> <p>The NBSAP has targeted PES and Biodiversity offsets as a resource mobilization strategy but not how to undertake the activities</p> <p>There is no need to revise the law on forests to conserve biodiversity although the provisions against de-gazettement are adequate.</p> <p>There is no law that directly contradicts the NNL but only perverse policies and administrative pronouncements such as wealth creation and double agriculture production campaign; but also admin issues such as Kisanja “Hakuna Mchezo”!</p>
<p>Mr. Edgar Buhanga and Justine Namara Uganda Wildlife Authority</p>	<p>Overview of the discussion of the offsets is that there are several developments in PA such as Roads, Gravity flow schemes, small hydropower, as well as big ones such as Karuma, Oil exploration activities, transmission lines etc... that are taking place in the PA. Some are short term, and others are for life (e.g... transmission lines et...). BD offsets are relatively new; and the laws, including the Environmental law did not provide for them, the thinking came after. The New NEMA Bill of 2016 is however providing for offsets.</p> <p>There is thus a challenge. Impacts exits and we are not able to mitigate. There is no framework for how to pay, how to calculate, etc...No enabling legal framework, but have engaged developers that for particular impacts they are just compensated and not offsetting. Such as when establishing Mbarara/Nkenda – thru the park, there was an evaluation of the BD – the value was then compensated by the developer. Followed, the principle of offsets and decided to use the money to redeem land that had been titled in Katonga WR. The principle of offset – loose here and gain here; so that was the approach.</p> <p>Similar arguments for a line that gets power from Karuma to the north through the park and so this is being evaluated as well in order that compensation can be undertaken. We hope that once the NEMA law is passed, it could offer the guidance and the frame work.</p> <p>In addition to the projects – there is one in Mt. Elgon – the Citi mini hydro power; have developed a BD concept to restore the areas that are degraded. Have finalized a budget to plant about 70 ha of Elgon.</p> <p>The wildlife policy (2014) has an objective of managing impacts and a provision for offsets and PES as a way of compensating. The challenge is not being able to offset completely for the NNL or NG. Like for like etc...There are no guidelines for assessment of “like for like”.</p> <p>At country level, the opportunities to have “like for like” are getting more difficult; the ecological integrity is degraded. In Bunyoro – there is some classic example where PES could be implemented (WCS, Eco-trust and JGI), but also WWF under the first GEF project...that could be close to the Biodiversity Offsets as the areas are still available with ecological integrity.</p>

	<p>These are however getting fewer and fewer.</p> <p>Any penalties if compensation is not done? No! But UWA is going to develop guidelines for Biodiversity offsets soon and will be trying to align with the BBOP standards. The guidelines will be developed with staff on-ground– including stakeholders... No strategies yet in place for that but the guidelines will be the focus. Have discussed with WCS, and will develop a concept for discussion to support the process.</p> <p><b>Lessons:</b> Kibale forest (the Kamwenge-Fporatl road); Ruwenzori; the Mbarara-Nkenda). Kakaka mini hydro in Ruwenzori could not be developed because of the chimps. The triggers are mainly international pressure rather than local institutions...</p> <p>EIA practitioners not yet on the BO; but more on impacts and how to minimize....even capacity is needed.</p>
Mr. Kaggwa Ronald National Planning Authority	<ul style="list-style-type: none"> <li>• The NEA, and the NEMP provide for mitigation; thru – EIA but for mitigation they don't go far enough. Even the few provisions currently there don't go far enough to compensate.</li> <li>• The laws are generic. Even when they provide for mitigation, the accuracy of the restoration or mitigation is a challenge. The mitigation is not equal to the loss. In every mitigation there is instead a loss – mainly because of capacity issues in evaluation but also conservation managers have not made a strong case. No net loss of BD loss should be followed by evaluation...</li> <li>• There have situations of a natural forest lost, such as was the case of Namanve, but replacement is never achieved.</li> <li>• There are no guidelines on offset; and no precedent, except the Kalagala offset. But even then there was no follow-up to be done to a logical conclusion. There is no incentive to ensure that there is no net loss.</li> <li>• The lapse of time from development to offsets is always long. If any offsets are to take place, lead institutions for the particular ecosystem such as wetlands, forestry, etc. should be involved guided by NEMA.</li> <li>• The EIA process is not strong enough and poor in innovative approaches; especially in regard to animal corridors – e.g. if passing through the parks...</li> <li>• The law is absent; and where some provisions largely weak. The development of infrastructure is not about to stop and therefore there is need for a very strong law. In addition for the National Environment Act, for example, there should be subsidiary legislation to focus on the mitigation of biodiversity loss; to address changes of land use.</li> <li>• There is need for capacity building in valuation of natural resources to ascertain levels of loss. Also develop capacity in innovative instruments to manage BD such as performance bonds (when developing a road; put some money as bond - when restored money returned; if not the fund are used to address the loss;</li> <li>• Strengthen EIA course to build capacity; then direct to follow the mitigation hierarchy as much as possible. Where it requires compensation and restoration, the EIA should provide for guidance. What would be the redress mechanisms to address any loss if offsets didn't work!</li> <li>• The capacity building should target impacting agencies; such as the Ministry of Works and Transport. The companies that win contracts have poor environment records and so should be addressed; such as the World Bank social safeguards...The ecological balance is lost in most developments... Ecological data; through diversity inventories need to be undertaken comprehensively for meaningful restoration. BD restoration studies need to be undertaken in specific areas; where developments are taking place... We are weak on natural capital planning – such as how do we want to increase forests or wetlands etc...to build a natural capital base... NBSAP was integrated in the NDPII...</li> </ul>

	<ul style="list-style-type: none"> <li>• NEMA is overarching institution but NPA could help... There is need for a law that obligates sectors to contribute to biodiversity management such as resource levy in Tanzania...</li> </ul>
<p>Ms. Sophie Kutegeka and Mr. Mwima Polycarp - IUCN</p>	<ul style="list-style-type: none"> <li>• Implementation framework a problem in Uganda</li> <li>• No system available for assessment and monitoring the implementation of biodiversity offset</li> <li>• Biodiversity came with the Earth Summit, (1992); now it is offsets – changes needs and focus</li> <li>• Generally, policies and laws are “supportive” and recognizant of environmental concerns affecting the various sectors, embrace the concept of sustainable development, promote restoration of degraded ecosystems and uphold the principles of sustainable management of natural resources.</li> <li>• The provisions in policies and laws are broad enough and accommodative to take care various aspects of environmental management. But at the same time, lack of specificity they are not specific enough – so ambiguous and vague – general environment policy to cover environment, biodiversity ,</li> <li>• Environment not a priority and hence nothing very specific</li> <li>• Biodiversity conservation has been a song for some time, and now it is changing into another song of the trigger is the concern about development and not compromise development at the expense of biodiversity. Compensate, etc...</li> <li>• The implementation framework is not concrete.</li> <li>• The concept of biodiversity offset – some circles think it is a way of promoting biodiversity loss through the pretext that so long as you can identify another area. Whatever you loss, it is not possible to get exactly the same alternative. This creates fears of eventually losing areas of high conservation values and replacing them with degraded ecosystems. In this respect, the NNL/NG is not actually realized</li> <li>• Kalagala Offset – was more of a condition from World Bank. There is no overall framework from which we are operation. Some of these are coming from the global commitments; which we then domesticate. It I within the bigger framework that we domesticate.</li> <li>• However, there are so broad and difficult to implement on the ground.</li> <li>• Oil and gas – recognizes biodiversity and ecosystems conservation; the guidelines may specify the detailed, but the will to implement is lacking –political will and related resources to implement.</li> <li>• If the integration of biodiversity offset does not stop on the NEA, but it is extended to other sectoral policies and laws. However the actual implementation is a constraint –integration <ul style="list-style-type: none"> <li>○ Sectoral documents –policy, law and guidelines</li> <li>○ Provide carrot and stick for overseeing the implementation (resource mobilization , coordination and monitoring)</li> <li>○ NEMA is the focal point for the Convention of Biodiversity (CBD); could be the center as a lead agency for monitoring biodiversity offsets. NEMA should be the home for biodiversity monitoring and coordination. This could also be an opportunity for NEMA to build capacity for biodiversity management. However, what would be the role of ESSD within the MWE? There is need to streamline these roles,</li> <li>○ Handling environment / biodiversity conservation as a cross-cutting issue serves only to jeopardize implementation on the ground. Not effective to result in real measurable outcomes for NNL/NG</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>Capacity issues for implementing NNL/LG needed for all sectors</li> </ul>
Mr. Kagoda Moses - Association of Environmental Impact Assessors (AEIA)	The current EIA guidelines do not explicitly say anything about biodiversity offsets or the implementation of the mitigation hierarchy. The closest to a biodiversity offset comes up when, in the course of the EIA, it is realized that substantive biodiversity may be destroyed. In such circumstances, a recommendation for mitigation measures is made.
Ms. Monica Kateega Seruuma, and,  Mr. Kamanda - Uganda National Road Authority	<p>No biodiversity offsets have ever been carried out; and NEMA is planning to develop a new law to address the issues of offsets. The act that set up the agency is being operationalized and environmental issues are being incorporated but not specific biodiversity... IF there are any issues that stems from an EIA, the developers have a process to follow to address the issues. As UNRA, we are regulated by NEMA in as far as EIAs are concerned and the issues that need attention are discussed. We also follow AfDB and WB environmental safeguards and standards. What comes out of the discussions is what forms the contract with the contractors.</p> <p>At the contractor level, they develop an environment and social management plan that is a stand-alone plan specific for addressing environment issues.</p> <p>The EIA is basically the main document that outlines the process and so the emphasis is that at planning stage there a professional undertaking of the EIA to undertake mitigation measures.</p> <p>Now that NEMA is putting offsets in the law it will come out clearly and that would also give UNRA a way forward to address BD,</p> <p>The Kapchorwa-SUAM Road funded by the AfDB, for example, has proposals to plant trees because it went through the forest and UWA is the partner and so will choose an area of their choice to plant the indigenous trees. UWA and UNRA will decide the suitable trees. The implementation of offsets may be one of the issues with the Jinja Express way, where the Mabira forest is a major target ecosystem which will be affected.</p> <p>Why not pass through local communities areas – a possibility is for the NFA in Mabira to get the compensation funds and “buy” off some community land and regenerate back to forests.</p> <p>An offset was proposed for the Northern By-pass, and buy off the Lutembe area, but the challenge was that there was no legal framework to undertake such an offset. The Northern by pass was through the wetlands and so the proposal was to buy another wetland. This emphasizes the need for a legal framework for such offsets – and the NEMA law will be adequate.</p> <p><i>Monica:</i> We will be piloting Biodiversity offsets soon with the WCS; especially targeting the Jinja Expressway. The Mabira case will be the start.</p>
Mr. Sam Mwandha - African Wildlife Foundation	The UWA law has some indications that in case a protected area has to be changed in land use, then an EIA; this is the closest to offsets. There is a new bill for UWA that is developing- not yet tabled but with the parliamentary commission- not sure if there is a lot about offsets. Biodiversity offsets have been attempted in UWA when developments take place. I have had some experience when the road to Bundibugyo took bits of the park... Payments were made; but likely contributed to management. There was also money obtained by UWA for the Nkwenda power line for Kibale; not sure how much but was used to compensate people who had tittles in the wildlife in Katonga. BD offsets in the strict sense may not be possible in the country...Experiences are mainly on compensation rather than as offsets. There is need for a framework policy for

	<p>offsets. But the issue will also be Is there biodiversity elsewhere to protect in case of destruction of a biodiversity area. Oil and gas is more on corporate social responsibility rather that compensation or offsets.</p>
Dr. Robert Kityo - Makerere University	<p>In the Uganda context, offsets as acre for acre is impossible but in kind it is possible. An offset, for example would be to empower UWA to control increased traffic in the park. Funds out of BD degradation should be used for improved management. It is impossible to implement the BBOP standards in this country. The offset recreating a similar habitat would be such as the Tororo Rock with the Aloe; either the project doesn't take off or you must have a real offset before the project starts. Avoidance would be the option. Translocation of species, for example may work for other species but not others.</p> <p>For all the mitigation hierarchy to work. There must be clear political will – this is paramount in Uganda. Such as the Kalagala offset is lip service – dealing with offset of the falls rather than the biodiversity. There is need to consider whether there are any private land owners with at least over 1000ha of land available – Small forest patches, if close enough could be pseudo corridors to maintain the richness of biodiversity. The tenure system in the country also complicates biodiversity offsets – as land acquisition is not straight forward. The land tenure system works to hinder the implementation of the full range of the mitigation hierarchy against biodiversity loss.</p> <p>A land fund could be one way to address biodiversity offsets. The capacity and integrity to achieve a no-net loss is low in the country.</p> <p>There is need to develop specific guidelines for biodiversity offsets – but in addition, there would first have to be a review to have NEMA have “teeth to bite” – and “bite all fish” equally.</p> <p>The EIA processes also need to be more streamlined; given the inadequate time as well as promote transparency.</p> <p>Capacity building will also be necessary.</p>
Dr. Bahati Joseph – Makerere University	<p>For all the mitigation hierarchy to work. There must be clear political will – this is paramount in Uganda. Such as the Kalagala offset is lip service – dealing with offset of the falls rather than the biodiversity. There is need to consider whether there are any private land owners with at least over 1000ha of land available – Small forest patches, if close enough could be pseudo corridors to maintain the richness of biodiversity. The tenure system in the country also complicates biodiversity offsets – as land acquisition is not straight forward. The land tenure system works to hinder the implementation of the full range of the mitigation hierarchy against biodiversity loss.</p> <p>The capacity and integrity to achieve a no-net loss is low in the country.</p> <p>There is need to develop specific guidelines for biodiversity offsets – but in addition, there would first have to be a review to have NEMA have “teeth to bite” – and “bite all fish” equally. Capacity building will also be necessary</p>
Mr. Achilles Byaruhanga Nature Uganda	<p>Apart from the new Environment bill, there is no provisions in the laws. There is actually need to evaluate the impact of the laws on biodiversity... such as the recent tax exemption of legislators; it could be a serious issue to biodiversity. We could borrow from international legislation e.g. the CBD. What is happening now in Uganda is not biodiversity offsets but just compensation. There is even no awareness about it as well. There is need to increase awareness about the biodiversity offset concept itself. The Northern by-pass is going through a wetland, it would have really required an offset but didn't.</p>

ANNEX 3: List of laws, policies and other documents analyzed

<b>Lead Institution</b>	<b>Policies</b>	<b>Laws</b>	<b>Regulations/Guidelines</b>	<b>Strategies/Plans</b>
Uganda Nationally		The Constitution of the Republic of Uganda		Vision 2040  NDP II (development priorities), e.g. commercial agriculture,
Ministry of Water and Environment /FSSD	<ol style="list-style-type: none"> <li>1. Uganda Forestry Policy, 2001</li> <li>2. Wetland policy, 1995</li> <li>3. The water Policy, 2013 (revised)</li> <li>4. Uganda National Climate change policy, 2012</li> </ol>	<ol style="list-style-type: none"> <li>1. National Forestry and Tree Planting Act, 2003</li> <li>2. The Water Act, Cap 152</li> </ol>	<ol style="list-style-type: none"> <li>1. Environmental Impact Assessment Guidelines for Water Resources Related Projects in Uganda.</li> <li>2. Draft National Environment Management (Regulations).</li> <li>3. District Forestry Services Handbook</li> <li>4. Forestry regulations, 2015</li> </ol>	<ol style="list-style-type: none"> <li>1. Environment and Natural Resources Sector investment Plan</li> <li>2. Wetlands Sector Strategic Plan</li> <li>3. The National Forest Plan, 2011-2021</li> <li>4. Climate Change National Adaptation Programmes of Action (NAPA)</li> </ol>
National Forestry Authority				<ol style="list-style-type: none"> <li>1. The NFA Business Plan</li> <li>2. National Forest Plan</li> </ol>
National Environment Management Authority	<ol style="list-style-type: none"> <li>1. The National Environment Management Policy For Uganda 2014</li> </ol>	<ol style="list-style-type: none"> <li>1. The National Environment Management Act, Cap 153</li> <li>2. The National Environmental Impact Assessment Regulation, SI No. 13/1998</li> <li>3. The National Environment (Minimum Standards for Management of Soil Quality) Regulations</li> <li>4. The rivers Act</li> <li>5. The National Environment (Wetlands, riverbanks and lakeshores management) Regulations</li> </ol>	<ol style="list-style-type: none"> <li>1. Environmental Impact Assessment Guidelines for the Energy Sector</li> <li>2. Sustainable Financing Guidelines</li> <li>3. EIA Guidelines</li> </ol>	<ol style="list-style-type: none"> <li>1. The National Environmental Action Plan (NEAP)</li> <li>2. Strategic Environmental Assessment (SEA)</li> <li>3. Environmental Monitoring Plan for the Albertine Graben</li> <li>4. National Biodiversity Strategy and Action Plan</li> <li>5. Environmental Sensitivity Atlas for the Albertine Graben</li> <li>6.</li> </ol>



<b>Lead Institution</b>	<b>Policies</b>	<b>Laws</b>	<b>Regulations/Guidelines</b>	<b>Strategies/Plans</b>
Ministry of Tourism, Wildlife and Antiquities	National Policy on Conservation and Sustainable Development of Wildlife  Resources (2014)	1.Uganda Wildlife Education Centre Act, 2015,  2.Uganda Wildlife Research and Training Institute Act, 2015	Wildlife guidelines for Oil and Gas operations  Guidelines for Concessions in Wildlife Conservation areas	UWA Strategic Plan  The Tourism Sector Master Plan  Elephant Conservation Action Plan for Uganda  Uganda Crane Action Plan  The National Ivory Action Plan  National Strategy to Combat poaching and illegal wildlife Trade and Trafficking – makes reference to the EA regional strategy  National Rhino Conservation Strategy  Invasive Species Management Strategy for Protected Areas
Uganda Wildlife Authority	The Uganda Wildlife Polcy,2014	The Uganda wildlife Act, chapter 200 of 2000 (being amended - Uganda Wildlife Bill 2016  Uganda Wildlife Education		Protected Areas Systems Strategy

<b>Lead Institution</b>	<b>Policies</b>	<b>Laws</b>	<b>Regulations/Guidelines</b>	<b>Strategies/Plans</b>
		Center Act, 2015  Uganda Wildlife Research and Training Institute Act, 2015		
Ministry of Energy and Mineral Development	1. Mineral Policy of Uganda, 2000 2. The Energy Policy of Uganda 3. The National Oil and gas policy of Uganda, 2008	1. The Mining Act, 2013 2. The Mining Regulations, 2004 3. The Petroleum (Exploration, Development and Production) Act, 2013 4. Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act 2013	1. Environmental Impact Assessment Guidelines for Oil and Gas  2. Mining Oil and Gas	Draft Oil Spill Contingency Plan for the Albertine Rift Graben
Ministry of Trade and Industry	The National Trade Policy			
Ministry of Agriculture, Animal Industry and Fisheries	The Uganda Agriculture Policy, 2011  The National Fisheries Policy, 2004	1. The Plant Protection Act, Cap 31 2. The Animal (Prevention of Cruelty) Act, Cap 220 3. The Fish Act, Cap 197 of 2000 4. The Animal Diseases Act, Cap. 218 of 2000 5. Biotechnology and Biosafety Bill, 2012	Pesticides + fertilizer's  Aquaculture and fish cage	1. The Agriculture Sector Strategic Plan  2. The Uganda Climate Smart Agriculture strategy
Plant Genetic Resources Centre	Draft National Policy on Plant Genetic Resources for Food and Agriculture	The Plant and genetic Resources Bill, 2016		
The Ministry of Local Government		The local governments Act, Chap 243		

<b>Lead Institution</b>	<b>Policies</b>	<b>Laws</b>	<b>Regulations/Guidelines</b>	<b>Strategies/Plans</b>
Uganda National Road Authority		The National Roads Authority Act, 2006		
Ministry of Lands Housing and Urban Development	1.Uganda land (use) Policy, 2007  2. The Uganda National Land Policy, 2013	The Land Act, Chap 227  The Physical Planning Act, 2010		The Uganda National Land Policy Implementation Action Plan; 2015/16-2018/19
Ministry of Works and Transport			Environmental Impact Assessment Guidelines for Road Projects	
NARO		The National Agricultural Research Act, 2005		
Prime-Minister's Office	The National Policy for Disaster preparedness and Management, 2010			Draft Oil Spill Contingency Plan for the Albertine Rift Graben
Uganda Investment Authority	Uganda investment policy review	Investment Code Act, Chapter 92, Laws of Uganda		
WWF				PES, Ruwenzori National Parks

#### ANNEX 4: LIST OF RESPONDENTS – Key informant interviews

Organization	Key respondent	Relevant specialties
1. NEMA	Christine Akello (0772595252)	Environment policy, law and regulations
2. NEMA	Francis Ogwal	Biodiversity conservation
3. NEMA	Waiswa Ayazika (0772471139)	Director Environmental Monitoring & Compliance
4. NEMA	Sarah Naigaga	Legal and Policy specialist
5. NEMA	George Lubega	Aquatic Biodiversity Specialist
6. NFA	Levi Etwodu	Director Natural Forests
7. Ministry of Energy and Mineral Development	John Tumuhimbise/ Carol Aguti	Renewable Energy Directorate of Petroleum
8. Uganda Wildlife Authority	Mr. Edgar Buhanga/Ms. Justine Namara	UWA's offsets for biodiversity mitigation
9. Ministry of Trade and Industry	Mr. Joseph	
10. Ministry of Agriculture, Animal Industry of Fisheries	Mr. Stephen Muwaya (0752642536) Mr. Kamala Grace	Sustainable Land Management; Focal point UNCCD
11. National Planning Authority	Mr. Kaggwa Ronald (0772461828)	Resource Economist
12. IUCN	Ms. Sophie Kutegeka/Polycarp Mwima	Conservation
13. Nature Uganda	Mr. Achilles Byaruhanga	Conservation
14. ACODE	Mr. Onesimus Mugenyi	Environmental advocacy
15. Association of Environmental Impact Assessors (AEIA)	Mr. Kagoda Moses	EIA practitioner
16. Uganda National Road Authority	Ms. Monica Kateega Seruuma Mr. Kamanda	Environment issues
17. Uganda Land Alliance	Ms. Justine Namalwa/Ms. Agnes Kirabo	Land tenure systems
18. Ministry of Lands, Housing and Urban Development	Mr. Muyambi - 0703668394	Land Use compliance
19. African Wildlife Foundation	Mr. Sam Mwandha	
20. MWE	Mr. Mununuzi Nathan (0772841843)	Work on biodiversity offsets
21. Plant Genetic Resources Centre	Dr. John Wasswa Mulumba	Biodiversity and plant genetic resources conservation
22. Uganda Investment Authority	Mr. Kaye Emmanuel / Mr. Semakula	Environment issues
23. Makerere University	Dr. Robert Kityo (0772501291) Dr. Bahati Joseph	Working on the Kalagala Offset

## ANNEX 5: GUIDING QUESTIONS FOR KEY INFORMANTS

The impact of development on environment and natural resources is a major concern world over. In particular negative impacts on biodiversity call for deliberate mitigation strategies, including avoidance, minimization, restoration and offset/compensation, to ensure sustainability of the biological resources. The goal of biodiversity offsets is to achieve NO NET LOSS and preferably a NET GAIN of biodiversity on the ground with respect to species composition, HABITAT STRUCTURE, ECOSYSTEM FUNCTION and people's use and CULTURAL VALUES associated with biodiversity.

1. What instruments are in place for determining the impacts of development on biodiversity? Do the instruments take into consideration direct, indirect and cumulative impacts of development on biodiversity?

*(Environmental impact assessment (SI 13/1998); Sector-specific EIA – Guidelines...)*

2. Are there any instruments in place that promote NNL/NG of biodiversity? If so, then:
  - Are biodiversity and ecosystem services defined in the relevant legislation and if so how?
  - Do they define and address the application of the mitigation hierarchy (i.e. steps to avoid, minimize, restore, offset / compensate impacts on biodiversity)?
  - Are there specific requirements for NNL/NG of biodiversity, including offsets and/or compensation, whether for biodiversity in its entirety or for some subset of biodiversity (e.g. forests or some other component of biodiversity)?

*(Policies, laws and relevant statutory instruments)*

3. Do the instruments take into consideration international standards of best practice for ensuring NNL/NG of biodiversity? Do you have any observations on how they compare with the international Standards e.g. IFC PS6, BBOP, industry guidelines e.g. CSB
4. What strategies are in place to enforce the application of the mitigation hierarchy (i.e. steps to avoid, minimize, restore, offset / compensate) to manage the impacts of development on biodiversity? How effective have they been?

*(Institutional arrangements for implementation and monitoring of NNL/NG strategies; funding arrangements)*

5. What do you consider to be the main gaps in the policy and legal instruments for ensuring NNL/NG for biodiversity?
6. How best should these gaps be addressed?
7. How do you require a developer to address issues of NNL/NG? – What triggers?

*(Environmental Impact Assessment, planning requirements, administrative procedures)*

8. Is there a specific requirement for NNL/NG of biodiversity, including offsets and/or compensation, whether for biodiversity in its entirety or for some subset of biodiversity (e.g. forests or some other component of biodiversity)?
9. How exactly does the sector apply the mitigation hierarchy (i.e. steps to avoid, minimize, restore, offset / compensate impacts on biodiversity)?
10. Are direct, indirect and cumulative impacts considered when analyzing impacts and their mitigation?
11. Has the sector issued guidelines to give effect to the law and policy to implement requirements of NNL/NG of biodiversity? In the absence of government guidelines, are other sets of guidelines (eg

IFC PS6, BBOP, industry guidelines e.g. CSBI) being used to support company efforts to deliver NNL/NG? Please list and provide these.

*In answering the questions below, please mention which **departments** of government, agencies or institutions are **responsible** for preparing and enforcing the policy.*

**A. Land tenure** *(To Ministry of lands, Housing and Urban Development)*

- (a) Is there clear land tenure in Uganda and a spatially explicit cadastral plan so it is possible to tell who has rights to each parcel of land? (In the context of mitigation including biodiversity offsets, we need to establish how areas of land designated for development and designated for avoidance and biodiversity offsets can be clearly identified, recorded and contribute to enforcement.)
- (b) What are the mechanisms for securing long-term commitments on land, how do they work and which are most commonly used? (E.g. land-use planning, zoning, leases, title deed restrictions, covenants under other statutes etc.)
- (c) Is there a system of covenants/easements/servitudes that allows conservation obligations to run with the land even if the original landowner sells the land to a successor in title? If so are there provisions that require disclosure to successors?
- (d) Can these systems be applied to 'public' and as well as 'private' land? If not, are there other systems that apply to public land?
- (e) Can you suggest whether ownership, leasehold and/or other forms of tenure or arrangement could best be suited to long-term offset arrangements (whether on public or private land)?

**B. Protected area and wildlife legislation** *(To UWA, NFA, Wetlands...)*

- (f) What different protected area categories exist in Uganda? Are there community protected areas (as well as government ones) and do these have legal standing?
- (g) Are there rules prohibiting economic development within all or some categories of protected area and what are these rules?
- (h) Are there any barriers to establishing offsets in existing protected areas? (E.g. any rules prohibiting the linking of protected area conservation to private sector investments? And how could Uganda demonstrate the principle of 'additionality' had been satisfied with a justification for offset activities in protected areas (i.e. protected areas that already exist or are already planned)?
- (i) Could areas established for mitigation measures including offsets be given the status of protected areas? Does designation of protected areas in Uganda vary with the type of protected area in question and if so how does it vary?
- (j) Are there any listed habitats or species (other than protected areas) on which development impacts are regulated? How are these regulated?

**C. Indigenous peoples' rights and rights of local communities:**

- (a) Are there provisions for free prior and informed consent (FPIC) for indigenous peoples and other communities with respect to projects (eg a mine, road or agricultural expansion) taking place on

or having an impact on their lands or areas on which they obtain their livelihoods needs or practice cultural activities?

- (b) What rights have communities living in proximity to or potentially affected by a proposed development to object to the development, and/or to make comments on alternatives analyses and proposed mitigation measures, including offsets?

**D. Economic incentives (NPA)**

- (a) Are there any tax breaks, subsidies, grants or other economic instruments in place that promote (or hinder) good environmental performance in different sectors (e.g. mining, oil and gas, forestry, agriculture, infrastructure development, fisheries)?

**E. Liability regimes and trust funds:**

- (a) Are there any regimes setting out bonds, or other measures for prior investment for mitigating any impacts on biodiversity?
- (b) Are there any regimes setting out bonds, compensation, restoration or other measures of redress for any environmental damage (e.g. oil spills, pollution events or illegal clearing of forests)?
- (c) Have there been examples of mechanisms employed to secure land for conservation through easements or other similar approaches to managing land?

**F. Baseline duty of care:**

- (a) Does the law already stipulate a minimum duty of care for managing natural assets (e.g. on agricultural land/ plantations and forest lands)? (NB this will be important for establishing 'additionality', since conservation activities can only be counted as 'gains' for offsets if they take place in addition to any activities that are already required under the law.)

Does Uganda use a **principles-based** approach (setting out principles and associated **standards** to follow) in other areas of environmental policy?

Are there laws and policies in COUNTRY on **other environmental offsets** (e.g. carbon, water, social issues) and **Payments for Ecosystem Services**? Do you think these could be relevant in the context of NNL/NG policy objectives and to delivering multiple benefits within a landscape?

**Monitoring and enforcement:** What is the record in Uganda of monitoring and enforcement of law and policy, including on biodiversity? What are the limitations, e.g., in terms of capacity?

- (i) Is there a requirement for expert monitoring and evaluation of mitigation and offset implementation?
- (ii) Is there a requirement for quantified assessment of effectiveness of mitigation and offset implementation?
- (iii) What are the mechanisms for ensuring transparency of monitoring and evaluation methodology and outputs and for their feedback into management (to project proponent) and oversight bodies (to regulators)?

## ANNEX 6: TEMPLATE FOR CAPTURING GAPS DURING LITERATURE REVIEW

Reference Policy, law or Guideline	Provision	What to determine <ul style="list-style-type: none"> <li>• Whether biodiversity and ecosystem services are defined</li> <li>• It defines and addresses the application of the mitigation hierarchy</li> <li>• Does the provision require NNL/NG outcomes of biodiversity?</li> <li>• Are the requirements for NNL/NG outcomes specific and measurable or are general provisions?</li> <li>• Does the provision facilitate but not require NNL/NG?</li> <li>• Does the provision prohibit or establish obstacles to achieving NNL/NG?</li> </ul>
<b>A. Policy</b>		
1. Energy policy 2002	1.2.4 and 1.3.1	Biomass is a major source of energy for Ugandan rural and urban communities. BUT there is no clear strategy for replacement of lost biodiversity in the policy arising of the use. There is however a mention of “substitution” such as use of LPG to reduce deforestation.
2. National policy for disaster preparedness 2010	2.2.10 (ii,iii,iv,v)	<ul style="list-style-type: none"> <li>• Involve communities in environment protection</li> <li>• Formulate strict laws against environmental degradation</li> <li>• Develop programs for proper management of the environment</li> <li>• Conduct environmental impact assessment</li> </ul>
3. National agriculture policy 2011	Objective 5	The Agriculture sector in Uganda is largely rain-fed. As such, the sustainable management of natural resources is key to agriculture development. Unfortunately there is no specific policy mention on the importance of management of natural resources... less likely about biodiversity; save for a mention of sustainable management of agricultural resources in Objective 5 of the policy.
4. Land use policy 2006	1.4.2(f)(g)  Policy statement 20	<p>The policy recognizes that any changes in land use will have impact on both biological diversity and overall environment degradation. While the suggestion in the policy is to promote better land use planning; there is no mention of how this would be done and no details for specific habitats.</p> <ul style="list-style-type: none"> <li>• The weak policy and legal mechanism for wildlife conservation outside the protected area. Wildlife outside protected areas has continued to receive little attention as far as conservation is concerned. This is a very serious omission is that wildlife knows no boundaries and therefore, remains largely unprotected when they stray from the reserves into private or public land.</li> <li>• The country is experiencing widespread degradation of water catchment areas as evidenced by the Large-scale drainage of wetlands for construction and conversion to agricultural land continues despite the existence of the National Environment Management Statute 1995 (National Environment Act Chapter 153) and the National Wetlands Management Policy 1996, which have provisions for their sustainable utilization.</li> <li>• Direct discharge of untreated or poorly treated effluent from industries. There have been instances of fish kills in the immediate locality of the inner Murchison Bay, due to the effect of de-oxygenation of water as a result of heavy organic loading and the effect of high pH and temperatures.</li> <li>• Wastewater discharges especially from industrial activities close to or discharging directly into water systems have led to their degradation. For example, River Musambya (near SCOL, Lugazi) was in 1996 found to be dead along a stretch of 20 km, with bubbling sulphide and no animal or plant life along the stretch.</li> <li>• Loss of forest cover to infrastructure development (roads, power, pipe and rail lines). The benefits of construction and rehabilitation of roads, however,</li> </ul>



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		<p>come along with costs associated with the damage caused to the environment. This activity involves clearing vegetation, and in some areas where the road is to pass through a forest area, part of the forest is inevitably lost.</p> <ul style="list-style-type: none"> <li>• There is strong evidence of a steep decline in biological diversity resources in the country. All the levels of biological diversity, namely the genetic, species and ecosystem levels are affected. Uganda's Forest Reserves have experienced a loss of 35% of their forest cover (The Uganda Forestry Policy, 2001). Similarly losses are being experienced in other ecosystems such as wetlands and grasslands.</li> <li>• Design and implement a clear and well-defined land evaluation mechanism.</li> <li>• b) Sensitize the people on the costs and benefits of conserving biodiversity.</li> <li>• c) Restore the lost biodiversity through sustainable, Well-established and innovative programmes.</li> <li>• d) Implement the National Biodiversity Action Plan.</li> <li>• e) Encourage coordination and networking among institutions responsible for biodiversity conservation.</li> <li>• f) Encourage practices that promote conservation of biodiversity among communities.</li> </ul>
5.National oil and gas policy 2008	Section 5.3(5.3.9) a, b, c, d	<ul style="list-style-type: none"> <li>• To ensure that oil and gas activities are undertaken in a manner that conserves the environment and biodiversity.</li> <li>• Ensure availability of the necessary institutional and regulatory framework to address environment and biodiversity issues relevant to oil and gas activities.</li> <li>• Ensure presence of the necessary capacity and facilities to monitor the impact of oil and gas activities on the environment and biodiversity.</li> <li>• Require oil companies and their contractors/subcontractors to use self-regulation and best practices in ensuring environmental protection and biodiversity conservation.</li> <li>• Require oil companies and any other operators to make the necessary efforts to return all sites on which oil and gas activities are undertaken to their original condition as an environmental obligation.</li> <li>• Upgrade the relevant Environment and Biodiversity legislation to address oil and gas activities.</li> <li>• Strengthen the institutions with a mandate to manage the impact of oil and gas activities on the environment and biodiversity.</li> <li>• Develop physical master plans, environmental sensitivity maps and oil spill</li> <li>• Contingency plans for the oil and gas producing region and any transport corridors.</li> </ul>
6.NEMP	Section 3.4(vii) and 3.4(xi)	<ul style="list-style-type: none"> <li>• This section provides the intention “to foster public support for intended biodiversity actions and encourage private investment in biodiversity conservation” but does not give details of how this will be done</li> <li>• Section 3.4(xi) provides for “the intention to develop strategies and guidelines for implementation of biodiversity offsets” This is a good starting point and this would need to be operationalized.</li> </ul>

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NEMP	Section 3.6.6(i)	<ul style="list-style-type: none"> <li>• This is a section that was entirely dedicated to biodiversity off sets</li> <li>• To develop, test and disseminate good practice on biodiversity offsets and to demonstrate, through a portfolio of pilot projects in a range of contexts and industry sectors, that biodiversity offsets can deliver improved and additional conservation and business outcomes than have often resulted in the context of development projects to date.</li> <li>• Work with local communities, NGOs and government agencies involved in conservation and land-use planning, to demonstrate that developers can implement biodiversity offsets that enhance local communities' use and enjoyment of biodiversity,</li> <li>• Deliver prioritized, targeted and cost-effective biodiversity conservation outcomes for the long term, and help companies manage their risks, liabilities and costs.</li> <li>• No net loss: 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.</li> <li>• Additional conservation outcomes: 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.</li> <li>• Adherence to the mitigation hierarchy: A biodiversity offset minimization and on-site rehabilitation measures have been taken according to the mitigation hierarchy is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance</li> <li>• Landscape context: 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.</li> <li>• Stakeholder participation: In areas affected by the 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.</li> <li>• Equity: 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 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 recognized rights of indigenous peoples and local communities.</li> <li>• Promote compensation for the biodiversity values (species, habitats or ecosystems) that is impacted through development.</li> <li>• Promote restoring or rehabilitating degraded areas or trans-locating biodiversity components;</li> <li>• Promote protection of threatened areas</li> </ul>

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		<ul style="list-style-type: none"> <li>• Promote establishment of buffer zones in affected areas</li> <li>• Promote improvement of habitat connectivity and secure species corridors</li> <li>• Promote voluntary biodiversity offsets</li> </ul>
7.Uganda national land policy 2013	Section 6.7: 140(d), 142(iii), 143(ii), 7: 157(iv)	<ul style="list-style-type: none"> <li>• The government shall ensure that all land use practices conform to land use plans and the principles of sound environmental management, including biodiversity preservation, soil and water protection conservation and sustainable land management</li> <li>• Provide special protection for fragile ecosystem including unique and sensitive biodiversity colonies like hill tops, wetlands, water catchment areas, lake shores and river banks.</li> <li>• Establish and implement an effective mechanism for the management of wildlife outside the protected areas</li> <li>• Conserve biodiversity and the environment</li> </ul>
8.Water and environment policy 2013		
9.Uganda national climate change policy 2012	Biodiversity and ecosystems services policy response	<ul style="list-style-type: none"> <li>• Identify biodiversity hotspots where only restricted development should be allowed</li> <li>• Strengthen the capacity for monitoring the impacts of climate change on biodiversity, ecosystems and ecosystem services</li> <li>• Encourage collaborative management and sustainable use of biodiversity and ecosystems</li> </ul>
10.Uganda wildlife policy 2014		<p>The Biological Diversity Convention, 1992</p> <p>The Convention on Biological Diversity imposes a duty on its parties to take a number of measures to implement its provisions. The Convention, in particular, requires each nation to</p> <ol style="list-style-type: none"> <li>Integrate sustainable utilization of natural resources into its national strategies and plans and programmes;</li> <li>Promote in-situ conservation and in particular protect traditional knowledge about conservation and protection of threatened species;</li> <li>Promote ex-situ conservation;</li> <li>Promote sustainable use of biological diversity;</li> <li>Create economically and socially sound incentives for conservation and sustainable utilization</li> <li>Promote research, training and public awareness and education;</li> <li>Introduce environmental impact assessment;</li> <li>Govern access to genetic resource and promote transfer and access technology</li> <li>Promote bio safety;</li> <li>Promote international co-operation in the protection of biological diversity under various provisions.</li> </ol> <p>Most of the above provisions are already incorporated in the National Environment Act, Cap 153 The Uganda Wildlife Act, Cap 200 of 2000 also adheres to the principles of the Convention, and provides for the sustainable management and utilization of wildlife.</p>

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11.National trade policy 2007	none	
<b>B. Laws</b>		
<b>e.g.</b>		
1.NEA,2016	4(2)j	The provision requires consideration of the mitigation hierarchy; but falls short of providing for the process
2..PPA, 2015		Plant protection via curtailing import of harmful flora and fauna
3. National forestry authority 2003	1.2.6 Policy statement 7	<p>Uganda is blessed with a rich diversity of natural habitats, species and genetic resources in its forests. It is one of the most diverse countries in Africa, with for example 11% and 7% of the world's bird and mammal species respectively, in only 0.02% of the land area. This biodiversity has a great intrinsic value</p> <ul style="list-style-type: none"> <li>Support conservation initiatives in priority forests with high biodiversity value, including both government and private forests, as identified in the Nature Conservation Master Plan, the Protected Area Assessment Programme and the National Biodiversity Strategy.</li> <li>Promote collaboration between sectoral institutions concerned with biodiversity conservation (Forestry, Wildlife, Fisheries and Agriculture).</li> <li>Promote collaborative management of Protected Areas, with defined responsibilities and sharing of benefits derived from biodiversity conservation.</li> <li>Address conflicts resulting from problem animals near Protected Areas</li> <li>Promote the development of biodiversity-related tourism, to generate income for local and national benefits.</li> <li>Increase knowledge of forest biological diversity, its management and its potential for future use.</li> <li>Support the implementation of international biodiversity obligations and cross-border conservation initiatives, with any required subsidiary legislation and regulations.</li> <li>Integrate and co-ordinate methods of forest genetic and species conservation through seed banks, botanical gardens and arboreta</li> </ul>
4..National environment act 2005 chap. 153	Section (IX) 67	<ul style="list-style-type: none"> <li>Subject to the provisions of this Part, the authority may issue to any person in respect of any matter relating to the management of the environment and natural resources an order in this Part referred to as an environmental restoration order</li> <li>An environmental restoration order may be issued under subsection (1) for any of the following purposes— <ol style="list-style-type: none"> <li>requiring the person to restore the environment as near as it may be to the state in which it was before the taking of the action which is the subject of the order;</li> <li>preventing the person from taking any action which would or is reasonably likely to do harm to the environment;</li> <li>awarding compensation to be paid by that person to other persons whose environment or livelihood has been harmed by the action which is the subject of the order;</li> <li>Levying a charge on that person which represents a reasonable</li> </ol> </li> </ul>

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		<p>estimate of the cost of any action taken by an authorized person for organization to restore the environment to the state in which it was before the taking of the action which is the subject of the order.</p> <p>(3) An environmental restoration order may contain such terms and conditions and impose such obligations on the persons on whom it is served as will, in the opinion of the authority, enable the order to achieve all or any of the purposes set out in subsection (1).</p> <p>(4) Without prejudice to the general effect of the purposes set out in subsection (1) or the powers of the authority set out in subsection (2), an environmental restoration order may require a person on whom it is served to:-</p> <p>(a) take such action as will prevent the commencement or continuation of or the cause of pollution;</p> <p>(b) restore land, including the replacement of soil, the replanting of trees and other flora and the restoration, as far as may be, of outstanding geological, archaeological or historical features of the land or the area contiguous to the land specified in the order;</p> <p>(c) take such action as will prevent the commencement or continuation of or the cause of an environmental hazard;</p> <p>(d) cease to take any action which is causing or may cause or may contribute to causing pollution or an environmental hazard;</p> <p>(e) remove or alleviate any injury to land or the environment or to the amenities of the area;</p> <p>(f) prevent damage to the land or the environment, aquifers beneath the land and flora and fauna in, on, under or about the land specified in the order or land or the environment contiguous to land specified in the order;</p> <p>(g) remove any waste or refuse deposited on land specified in the order;</p> <p>(h) deposit waste in a place specified in the order;</p> <p>(i) Pay such compensation as is specified in the order.</p> <p>(5) In exercising its powers under this section, the authority shall—</p> <p>(a) have regard to the principles as set out in section 2;</p> <p>(b) Explain the rights of the person, against whom the order is issued, to appeal to the court against that decision.</p>
5.Uganda wild life act		
	10(1)	Eradication of harmful organisms to biodiversity – <i>leading to averted loss....</i>
6.Fish act 1964	Section 26	<ul style="list-style-type: none"> <li>Any authorized officer may enter upon or into any land and may halt and enter upon or into any aircraft, vehicle or vessel for the purpose of carrying out the provisions of this Act or of preventing or detecting offences against this Act.</li> </ul>
7.The National Environment (Wetlands, River Banks And Lake Shores	Section 6(1): this is an entire section on biodiversity 2(a,b,c,d,e,f,g,	<ul style="list-style-type: none"> <li>The Technical committee on Biodiversity Conservation established under section 11 of the statute shall be responsible for advising the Board and the Executive Director on the wise use, management and conservation of wetland resources.</li> <li>reviewing the implementation procedures for wetlands management and</li> </ul>

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Management) Regulations, No. 3/2000 (Under section 107 of the National Environmental Act Cap 153)	h)  35	<ul style="list-style-type: none"> <li>• making the necessary recommendations to the Board and the Executive Director;</li> <li>• reviewing and recommending regulations or guidelines to be issued by the Authority to developers;</li> <li>• reviewing and advising on the environmental impact assessments, audit and monitoring;</li> <li>• advising on solutions to potential conflicts that might arise through competing requirements for wise use of wetland resources;</li> <li>• recommending activities that may be regulated in the utilization of wetland resources;</li> <li>• advising on reconciling wetland use rights by local communities with the impact such activities may have on other natural resources;</li> <li>• advising and recommending mechanisms for ensuring public awareness and participation in the protection of wetlands; and</li> <li>• Advising the Authority on any other issues relating to conservation and management of wetland resources.</li> <li>• The Executive Director may require that a wetland, river bank and lake shore which has been degraded be allowed to regenerate, or issue a restoration order in accordance with section 67, 68, 69, 70 and 71 and the Act.</li> </ul>
8. Water act 1997	Section 80: (1,2), 81(a,b), 83(1,2,3 ), 91(1,2,3,4)	<ul style="list-style-type: none"> <li>• Where it is necessary for the construction or operation of any works, an authority may break up the surface of any road and open or break up any works under the road.</li> <li>• An authority shall – do as little damage as possible; and carry out the work as quickly and efficiently as practicable,</li> <li>• Pay compensation for any damage which may have been done to the works of any public authority in the exercise of the powers under this section.</li> <li>• erect and maintain fences on or enclose the land under the protected zone; and</li> <li>• Prohibit activities within the protected zone, as it sees fit.</li> <li>• An authority may enter and remain upon land and may – <ul style="list-style-type: none"> <li>(a) take measurements and make estimates on the land as it thinks necessary or desirable;</li> <li>(b) construct or remove works as it thinks necessary or desirable for the exercise of its functions;</li> <li>(c) collect and take samples it may think necessary or desirable;</li> <li>(d) Make investigations, inquiries or inspections as it thinks necessary or desirable to determine whether the provisions of this Act are being complied with.</li> </ul> </li> <li>• Section 15 shall apply to any entry of land under this section.</li> </ul> <p>A water authority shall be liable for any nuisance or other injury done to any land other than the land entered under this Act.</p> <ul style="list-style-type: none"> <li>• (1) If damage is caused to land in the exercise of powers conferred on an authority by this Act, the authority shall, if required, compensate all parties</li> </ul>

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		<p>interested in the land for all damage sustained by them in consequence of the exercise of those powers, subject to this Act.</p> <ul style="list-style-type: none"> <li>• (2) For purposes of this section, "damage to land" means loss suffered as a result of -</li> <li>• (a) deprivation of the possession of the surface of any land;</li> <li>• (b) damage to the surface of land and to any improvements, crops or trees on the land;</li> <li>• (c) damage to stock; and</li> <li>• (d) all consequential damage</li> <li>• (3) In calculating compensation under this section -</li> <li>• (a) for damage to land payable under this section;</li> <li>• (b) in respect of the compulsory acquisition of any interest in land for the purposes of this Act,</li> <li>• no amount will be payable to the owner of any interest in, or the occupier of, any land in respect of the taking or use of water on, adjacent to or beneath that land by an authority pursuant to a water permit granted under Part II of this Act.</li> </ul>
9.Uganda national roads authority act 2006	Part 1: section 2(c)	<ul style="list-style-type: none"> <li>• To create an environment that is conducive to the efficient and effective management of the national roads network and other services provided by the Authority</li> </ul>
10.Petroleum act 2013	Section 3(5), (8)	<ul style="list-style-type: none"> <li>• The National Environment Management Authority in consultation with the Authority, may grant a licence for the management, transportation, storage, treatment or disposal of waste arising out of petroleum activities to an entity contracted by a licensee under subsection (3) on terms and conditions prescribed in the licence.</li> <li>• NEMA shall make regulations for the management of the production, transportation, storage, treatment and disposal of waste arising out of petroleum activities.</li> </ul>
11.Mining act 2003	Section 110	<ul style="list-style-type: none"> <li>• There shall be included in an exploration license or a mining lease granted under this act, a condition of such a holder shall submit an environmental restoration plan of the exploration or mining area that may be damaged or adversely affected by his/her exploration or mining operations.</li> <li>• The environmental restoration plan shall include the following <ol style="list-style-type: none"> <li>a) An identification of the exploration or mining area concerned. It current uses and productivity prior to exploration or mining operations</li> <li>b) A detailed time table of the accomplishment of each major step to be carried out under the restoration plan which may include:- <ol style="list-style-type: none"> <li>i. The reinstatement, levelling, re-vegetation, reforestation, and contouring of the affected land</li> <li>ii. The filling in sealing or fencing off of excavation shafts and tunnels</li> </ol> </li> </ol> </li> </ul>

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		<p>iii. Any other method that may be prescribed</p> <p>c) The use to which the land is proposed to be put following restoration. Including a statement of the utility and capacity of the restored land to support a variety of alternative uses.</p> <ul style="list-style-type: none"> <li>In making a decision whether to accept the environmental restoration plan, the commissioner shall take into account <ul style="list-style-type: none"> <li>a) The steps taken to comply with applicable environmental protection standards, existing land use policies and plans and any applicable health and safety standards</li> <li>b) The consideration that has been given in developing the environmental restoration plan in a manner consistent with local physical environmental and climatological conditions.</li> </ul> </li> </ul>
12. Physical planning act. 2010	Section V(37)	Where a development application relates to matters that require an environmental impact assessment to be carried out, the approving authority or physical planning committee may grant preliminary approval of the application subject to the applicant obtaining an environmental impact assessment certificate in accordance with the National Environment Act.
National forestry and tree planting Act, 2003	Section 8: (3), (4) Section 13: (3)(b)	<p>Before a new area is declared a central forest reserve in terms of subsection(2), the environment impact assessment must find the area to be of equivalent or grater environment</p> <ul style="list-style-type: none"> <li>a) Soil slope or other watershed conditions in the area will not be irreversibly damaged</li> <li>b) An environmental impact assessment carried out in respect of the proposed new land use of the areas, find that the same area can be adequately reforested within five years after harvest or clearance of the land should be area subsequently be the subject of a new declaration as a central forest reserve</li> <li>c) Protection is provided for streams, rivers, lakes, lake shores, river banks, wetlands and wild life from detrimental changes in temperature or from erosion, pollution degradation, deposit of sediments and desertification in areas where the proposed new land use is likely to seriously and adversely affect habitats or the environment</li> <li>d) Maintenance of the animals and plant indicator species with in the area is assured.</li> </ul> <p>b)forests shall be developed and managed so as to: to conserve biological diversity, ecosystem and habitats</p>
13. Land amendment act 2010	none	
14.Plant protection and	NONE	



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health act 2015		
15. constitutional amendment act 2005	Section 4(1)	Subject to article 26 of this Constitution, the entire property in, and the control of, all minerals and petroleum in, on or under, any land or waters in Uganda are vested in the Government on behalf of the Republic of Uganda.
16. Animal (Prevention of Cruelty act) [Cap. 220.	none	
<b>C. Strategic Plans...</b>		
1.Agriculture sector development strategy and investment plan 2010/11-2014/15	none	
National wet-land policy 1995	Section 7.1(i) 7.2(i) 7.3(i) and (ii) 7.4(i,ii and iii) 7.6(i) 7.13 (i,ii, iii,iv)	<ul style="list-style-type: none"> <li>There will be no drainage of wetlands unless more important environmental management requirements supersede.</li> <li>Only those uses that have been proved to be non-destructive to wetlands and their surroundings will be allowed and/or encouraged. These include water supply, fisheries, wetland edge gardens and grazing.</li> <li>Wetlands may be utilized in such a way that they do not lose traditional benefits presently obtained from them.</li> <li>Any decision to use wetlands must consider the requirements of all other users in the community.</li> <li>Government will establish fully "Protected Wetlands Areas" of important biological diversity.</li> <li>Government may also establish certain wetlands which will be used for partial exploitation such as research.</li> <li>No modification, drainage or other impacts will be entertained for the so-protected wetlands.</li> <li>Parts of utilized wetlands will be set aside for conservation activities and/or protected from modification, drainage or exploitation</li> <li>Enact a national law for regulating the management of wetland resources</li> <li>Encourage district authorities to make bye-laws for the proper management of wetlands</li> <li>Disseminate the broad guidelines provided herein, to district and urban authorities, as well as wetland users, researchers, academic institutions etc.</li> <li>Establish an inter-ministerial policy implementation institution</li> </ul>
2.Mineral policy 2000	2.3.4(4) (a,b,c)	<ul style="list-style-type: none"> <li>strengthen the environmental monitoring unit of the Ministry;</li> <li>(b) carry out sensitization of the society on the impact of mining on environment;</li> </ul>

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		<ul style="list-style-type: none"> <li>Promote the application of environmentally friendly technologies and mitigating where there is possible degradation.</li> </ul>
3..National forest plan 2011/12-2021/2022	none	<ul style="list-style-type: none"> <li></li> </ul>
4..Ministry of lands, housing and urban development 2007/2008-2012	none	<ul style="list-style-type: none"> <li></li> </ul>
5..Ministry of water environment strategic plan	none	<ul style="list-style-type: none"> <li></li> </ul>
6.Ministry of works and transport 2011/2012-2015/16		<ul style="list-style-type: none"> <li></li> </ul>
7. National environment strategic plan 2009/2010-2013/2014	none	<ul style="list-style-type: none"> <li></li> </ul>
8. Ministry of agriculture and animal fisheries strategic plan 2010	none	<ul style="list-style-type: none"> <li></li> </ul>
		<ul style="list-style-type: none"> <li></li> </ul>
<b>D. Regulations</b>		<ul style="list-style-type: none"> <li></li> </ul>
1.NEA (ENVIRONMENTAL ASSESSMENT) Regulations, 2016.	Section vi(43), 44, 45	<ul style="list-style-type: none"> <li>A developer of a project included in Schedule 5 or 6 of the Act or of a project proposed to be located in or near an environmentally sensitive area listed in Schedule 7 of the Act and any other project for which environment assessment may be required, shall apply the mitigation hierarchy of avoidance, minimization and mitigation of environmental impacts.</li> <li>Subject to sub regulation (1), where the developer, during the environmental impact study considers that a biodiversity offset, other offset or compensation mechanism may be necessary, the developer may propose the offset or compensation mechanism only as the last measure in the mitigation hierarchy to address remaining residual adverse impacts.</li> <li>Notwithstanding sub regulation (2), a developer or other person may consider a</li> </ul>

Reference Policy, law or Guideline	Provision	<b>What to determine</b> <ul style="list-style-type: none"> <li><i>Whether biodiversity and ecosystem services are defined</i></li> <li><i>It defines and addresses the application of the mitigation hierarchy</i></li> <li><i>Does the provision require NNL/NG outcomes of biodiversity?</i></li> <li><i>Are the requirements for NNL/NG outcomes specific and measurable or are general provisions?</i></li> <li><i>Does the provision facilitate but not require NNL/NG?</i></li> <li><i>Does the provision prohibit or establish obstacles to achieving NNL/NG?</i></li> </ul>
		<p>biodiversity offset, other offset or compensation mechanism as a distinct arrangement with the provider of an ecosystem or environmental service.</p> <ul style="list-style-type: none"> <li>In designing a biodiversity offset, other offset or compensation mechanism under this regulation, the developer or person referred to in subregulation (3) shall– <ul style="list-style-type: none"> <li>propose an offset or compensation mechanism which restores the original ecological functions of the project area or other suitable area or location with similar ecological traits; and</li> <li>adhere to the “like-for-like or better” principle in accordance with these Regulations and other applicable law.</li> </ul> </li> <li>The developer shall submit to the Authority an environmental impact statement, or in the case of sub regulation (3) as a separate document, a justification for the proposed offset or compensation mechanism.</li> <li>In( 44)The Authority may consider the proposal of a biodiversity offset, other offset or compensation mechanism made by the developer under regulation 43(2) or (3), taking into account- <ul style="list-style-type: none"> <li><b>(a) in relation to biodiversity or other offset, whether the offset -</b> <ul style="list-style-type: none"> <li>I. covers the full range of biological, socio-economic and cultural functions and values relating to biodiversity use;</li> <li>II. Is appropriate for the supporting ecosystems;</li> <li>III. Will achieve the expected measurable conservation outcomes; and</li> <li>IV. Adequately responds to the risks or hazards identified.</li> </ul> </li> <li><b>(b) in relation to compensation mechanisms, whether-</b> <ul style="list-style-type: none"> <li>(i)the natural resource or land is able to perform the ecosystem service or to provide the environmental service desired;</li> <li>(ii)The proposed compensation is agreed to by the recipient, is appropriate and adequate; and</li> <li>(iii)A payment for ecosystem services scheme is concluded in accordance with regulation 46(3).</li> </ul> </li> </ul> </li> <li>Where residual impacts may not be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected, the Authority may require the developer to re-assess and put in place measures to address the identified risks.</li> <li>In section (45), it is stated that, Where the Authority approves a biodiversity offset, other offset or compensation mechanism, the developer shall ensure that the mechanism considered does not cause harm to human health or a net loss of biodiversity when applied.</li> <li>The developer shall set out strategies to achieve the same or greater level of biodiversity in the area of the offset or compensation mechanism with respect to – <ul style="list-style-type: none"> <li>i. species composition;</li> <li>ii. habitat structure;</li> </ul> </li> </ul>

Reference Policy, law or Guideline	Provision	What to determine <ul style="list-style-type: none"> <li>Whether biodiversity and ecosystem services are defined</li> <li>It defines and addresses the application of the mitigation hierarchy</li> <li>Does the provision require NNL/NG outcomes of biodiversity?</li> <li>Are the requirements for NNL/NG outcomes specific and measurable or are general provisions?</li> <li>Does the provision facilitate but not require NNL/NG?</li> <li>Does the provision prohibit or establish obstacles to achieving NNL/NG?</li> </ul>
		<ul style="list-style-type: none"> <li>iii. ecosystem function; and</li> <li>iv. cultural values and human uses associated with biodiversity</li> </ul>
2..EIA guide lines of the road sector 2006	Section: 3.1 3.5.2	<ul style="list-style-type: none"> <li>An environmental impact is a change in an environmental element that is caused directly or indirectly by an activity related to a road project. Environmental impacts can be in the form of risks created by a project (e.g. increased risk of traffic accidents) and different social groups may be affected in different ways by environmental impacts. Impacts vary in terms of duration; timing; magnitude; spatial coverage; and likelihood of occurrences. All environmental impacts need to be established during the EIA process of a road project.</li> <li>Mitigation measures aim to minimize or eliminate adverse impacts, enhance beneficial impacts, and protect the rights of affected groups to compensation. Mitigation measures for those impacts found to be significant should be identified.</li> <li>Potential mitigation measures include alternative alignments and modifications of the design of the road project, compensation of those affected by the loss of land, and relocation.</li> </ul> <p>An EIR identifies potential positive and negative impacts caused by the road project (examples are presented in Annex 3). The major issues can be grouped as follows:</p> <ul style="list-style-type: none"> <li>Impacts on the physical environment (e.g. soils/erosion, water quality) Impacts on the natural environment (e.g. wetlands, national parks, forests)</li> <li>Impacts on production systems (e.g. land use, agriculture, livestock)</li> <li>Impacts on the human environment (socio-cultural and socio-economic aspects such as public health, loss of land, settlement patterns, income, gender)</li> </ul>
3. EIA guide lines of water sector	Section 4: 4.1.2, 4.2.2(This is an entire section on TORs on environmental impact assessment)(v), (vii), 4.2.3, 4.2.3.6, 4.4	<ul style="list-style-type: none"> <li>Environmental analysis is normally unnecessary, as the project is unlikely to have significant environmental impacts. A project brief is enough. This could include project location in less sensitive areas or where many such schemes are in the same locality and their synergetic effects have potential impacts.</li> <li>A limited environmental analysis is appropriate, as the project impacts can be easily identified and for which mitigation measures can be easily prescribed and included in the design and implementation of the project. Projects in this category could include: <ol style="list-style-type: none"> <li>Rural water supply,</li> <li>Large earth reservoirs, but not located in very sensitive areas</li> <li>Big gravity flow schemes</li> <li>aquaculture,</li> <li>small industries, and</li> <li>All category one projects located in sensitive areas.</li> </ol> </li> <li>where it is envisaged that the project is likely to lead to significant impact on the environment, it shall require that an EIR or a full EI Study be carried out.</li> <li>Identification of mitigation measures - recommend appropriate mitigation measures for mitigating the negative impacts and identify opportunities from</li> </ul>

Reference Policy, law or Guideline	Provision	<b>What to determine</b> <ul style="list-style-type: none"> <li>• <i>Whether biodiversity and ecosystem services are defined</i></li> <li>• <i>It defines and addresses the application of the mitigation hierarchy</i></li> <li>• <i>Does the provision require NNL/NG outcomes of biodiversity?</i></li> <li>• <i>Are the requirements for NNL/NG outcomes specific and measurable or are general provisions?</i></li> <li>• <i>Does the provision facilitate but not require NNL/NG?</i></li> <li>• <i>Does the provision prohibit or establish obstacles to achieving NNL/NG?</i></li> </ul>
		<p>positive impacts and how they can be enhanced,</p> <ul style="list-style-type: none"> <li>• Recommend feasible and cost effective measures to prevent or reduce significant impacts to acceptable levels. Estimate the costs of implementing the EMP. Consider compensation to affect parties for impact(s) which cannot be mitigated. The EMP should include proposed work programs, schedules, staffing and training requirements, and other necessary support services to implement mitigation measures:</li> <li>• Once the ToR are approved by NEMA in consultation with DWRM and other relevant lead agencies the next step in the EIA process is to carry out a detailed study of the key impacts according to the scoping report and ToR. The EI Study process for water resources related projects shall remain the same as stated in the National Environment Act Cap 153 and EIA Regulations 1998.</li> <li>• locating the project so as not to affect environmentally sensitive locations;</li> <li>• using construction, operation and restoration methods or processes which reduce environmental effects;</li> <li>• designing the whole project carefully to avoid or minimize environmental impacts; and</li> <li>• Introducing specific measures into the project design, construction, decommissioning and restoration that will reduce or compensate for adverse effects.</li> <li>• The Environmental Impact Assessment Regulations 1998 requires that the developer carries out environmental monitoring in order to ensure that recommended mitigation measures are incorporated into the project design and that these measures are effective so that unforeseen impacts may be mitigated.</li> <li>• Environmental monitoring recommendations are an essential part of the Environmental Management Plan. The monitoring activities should run through the construction, implementation and decommissioning stages of projects.</li> </ul>
Mining regulations	FORM XXVIII. Reg. 67(3).(5 and 6)	<ul style="list-style-type: none"> <li>• Details of environmental parameters or aspects monitored.</li> <li>• Results of monitored activities</li> <li>• Proposal of new procedures, if any, to protect and improve environmental conservation.</li> </ul>