



# TOOLS AND GUIDELINES FOR INTEGRATING BIODIVERSITY CONCERNS IN NATIONAL PLANNING PROCESS - AFRICA

**PREPARED FOR**

**THE AFRICAN UNION COMMISSION**
**DEPARTMENT OF RURAL ECONOMY AND AGRICULTURE**
**MULTILATERAL ENVIRONMENT AGREEMENTS (MEAS) PROJECT**

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## Table of Contents

## Acronyms

| | |
|---|---|
| ADB | African Development Bank |
| AHTEG | Ad Hoc Technical Expert Group on Biodiversity Indicators |
| AMCEN | African Ministerial Conference on Environment |
| AEO | African Environment Outlook |
| AUC | African Union Commission |
| BRICS | Brazil, Russia, India, China and South Africa |
| CAADP | Comprehensive African Agriculture Programme |
| CBD | Convention on Biological Diversity |
| COP | Conference of the Parties |
| CSO | Civil Society Organization |
| DREA | Department of Rural Economy and Agriculture |
| ECA | Economic Commission for Africa |
| EIA | Environmental Impact Assessment |
| EC-ACP | European Commission – African, Caribbean and Pacific Countries |
| ESA | Ecosystem Services Approach |
| FAO | Food and Agriculture Organization |
| GDP | Gross Domestic Product |
| GEF | The Global Environment Facility |
| GEO | Global Environment Outlook |
| IDLO | International Development Law Organization |
| IIED | International Institute for Environment and Development |
| IUCN | International Union for the Conservation of Nature (The World Conservation Union) |
| MDGs | Millennium Development Goals |
| MEA | Multilateral Environmental Agreement |
| NBS | National Biodiversity Strategy |
| NBSAP | National Biodiversity Strategy and Action Plans |
| NCA | Natural Capital Approach |
| NDP | National Development Plan |
| NEPAD | New Partnership for Africa's Development |
| NGO | Non-Governmental Organization |
| NG | Net gain of biodiversity |
| NNL | No Net Loss of biodiversity |
| NRA | Natural Resource Accounting |
| PRS | Poverty Reduction Strategy |
| PRSPs | Poverty Reduction Strategy Papers |
| RECs | Regional Economic Communities |
| SCBD | Secretariat of the Convention on Biological Diversity |
| SDGs | Sustainable Development Goals |
| SEA | Strategic Environmental Assessment |
| SEEA | System of Environmental Economic Accounts |
| SNA | System of National Accounts |
| TEEB | The Economics of Ecosystems and Biodiversity |

| | |
|---|---|
| UNCED | United Nations Conference on Environment and Development |
| UNDP | United Nations Development Programme |
| UNEP | United Nations Environment Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UNCCD | United Nations Convention to Combat Desertification |
| WAVES | Wealth Accounting and the Valuation of Ecosystems |
| WCMC | World Conservation Monitoring Center |
| WWF | Worldwide Fund for Nature |

## Executive Summary

1. This study is an initiative of the Multilateral Environment Agreements (MEAs) Project, EC-ACP Programme of the Department of Rural Economy and Agriculture (DREA), African Union Commission (AUC). It aims to develop tools and guidelines for integrating biodiversity concerns in national planning and decision making processes toward meeting Target 2 of the Aichi Biodiversity Targets: "by 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems."

2. The launch of the 2030 Sustainable Development Goals (SDGs) by the United Nations (UN) has ushered in the new sustainable development era. Africa has also embarked upon the implementation of Agenda 2063- the strategic plan for Africa's development and technological transformation based on inclusive growth and sustainable development. But at all levels, sustainable development can become a reality only when biodiversity concerns are taken into the heart of economic and financial decision-making, particularly into the public budgeting processes and within the wider financial sector.

3. Africa is richly endowed with the abundance and diversity of genes, species and ecosystems; and a recognized global centre of genetic diversity[1]. This biodiversity wealth is, however, characterized by a heavy concentration of biodiversity in small geographic space; an overlap of biodiversity and mineral occurrences; heavy dependence of a large majority of the population on biodiversity for livelihoods; existence of few and seriously threatened protected areas and largely unprotected coastal and marine ecosystems.

4. Today, Africa's biodiversity is in severe decline.[2] While population growth, extensive (low technological input) agricultural practices and unsustainable mining are among the key drivers of the decline, it is weak policies and governance shortcomings that played the bigger role in the massive biodiversity and habitat loss. Economic and investment policies have focused on meeting the dramatic growth in the demand for food, water, timber, fibre, fuel and foreign exchange through natural resource extraction without considering growing costs of biodiversity loss, ecosystem degradation, heightened vulnerability to climate risks and worsening of poverty for some groups of people.

[1] UNEP-WCMC 2016, UNEP 2010, 2008, 2006

[2] UNEP-WCMC 2016, UNEP 2010, 2008, 2006, MEA 2000.

5. In the African setting, biodiversity, economic and social systems are intertwined in a highly complex manner. The integration of biodiversity concerns in planning and decision making processes is, thus, neither a one-off undertaking nor a quick fix. It is a continuous and holistic process of knowledge development (awareness raising and data generation); policy and institutional changes (changing the political and economic management mindset); a technical process (identification of indicators, analysis, clear priority setting, and implementation mechanisms); involvement and engagement of broad range of actors/stakeholders across sectors and at all hierarchal levels (local, subnational and national); and dedicated leadership to guide, coordinate and manage the necessary links and processes.

6. The conceptual framework presented here takes cognizance of the multiple values of biodiversity, i.e., economic and production, medicinal and recreation, educational and research; ecosystem services and functions as well as spiritual and aesthetic values. It also underlines the importance of integrating biodiversity concerns at all stages of the planning cycle covering all aspects of biodiversity concerns: threats and risks; causes and effects; opportunities for maximizing economic, social, cultural and ecological (ecosystem services and functions/ climate) benefits that accrue to sound biodiversity strategies/ policies.

7. Integration of biodiversity concerns in the national planning process does not have a single entry point. A first task is to lay the infrastructure for integration, which involves five critical processes:
    - Step I. Ensure that the policy and legal framework for integration is there. A national biodiversity policy and the necessary regulatory frameworks need to be developed.
    - Step II. Designate a lead government agency. While integration process will guided by the Ministry of Finance or Planning and Development or Office of the Prime Minister, there must be a technical coordinating agency manned by multi-disciplinary expertise, over and above biodiversity scientists and specialists.
    - Step III. Develop fully nationally owned and internally driven integration strategy, which defines objectives, expected outputs, entry points, priorities, respective roles and responsibilities of institutions, stakeholder engagement and monitoring and follow-up mechanisms.
    - Step IV. Recognize NBSAPs and NDPs as the primary tools for integration with focus on building synergies among tools and instruments.
    - Step V. Pursue a holistic approach to integration. Biodiversity needs to be integrated at all stages of the planning cycle covering all aspects of biodiversity

concerns: threats, responses, effects, impacts and mitigation measures being taken.

8. The conventional national development planning cycle commences with the identification of indicators and data generation, which can also be considered as a starting point for integrating biodiversity concerns. But each stage of the planning cycle creates opportunities for integration and also serves as an integration tool.
   (i) **Data generation and analysis.** This is a critical stage that involves identification and prioritization of biodiversity related indicators, generating data both quantitative and qualitative; data analysis and communication to build a sound knowledge base for planning informed by science and traditional knowledge.

   (ii) **Plan formulation**. This encompasses two important processes: (a) plan/budget call prepared by the Ministry of Finance and/or Development Planning to provide a framework and guidance on the overall objectives, priorities and budget frame of the plan to be prepared; (b) plan preparation by sector ministries, government agencies/institutions and local administrations in response to the call, which involves: sectoral assessment, current situation and development constraints; objectives / goals and priorities for the plan period; investment budget requested to achieve goals set accompanied by justification and a list of project proposals; and implementation capacity, gaps and priority areas of capacity development

   (iii) **Plan elaboration**: this is the stage where the Ministry of Finance/ Planning analyzes rigorously sectoral plans and accompanying programme and project proposals submitted to it, which encompasses: technical analysis of the proposed plan by sectoral ministries/ government agencies with the view to ensuring consistency with national goals and priorities, economic and financial soundness and socioeconomic and environmental sustainability. Following the analytical work done by experts of the Planning/Finance ministry, representatives of sector ministries will be invited to defend what they submitted; and specifically answer questions that emerged from the analytical work. Based on the hearing of sectoral arguments and any additional information provided, the plan will be finalized and submitted, normally first to the Ministerial Cabinet and then Parliament for final approval.

   (iv) **Plan implementation.** This involves making the plan happen through clearly defining respective roles and responsibilities of plan implementing agencies while ensuring sustained political commitment, national ownership of the plan and

engagement of all stakeholders at all stages of the planning cycle, starting from data generation.

(v) **Monitoring and evaluation**. Over and above assessing the degree of target fulfilment; this process involves monitoring and evaluation of processes, outcomes and impacts in a holistic manner to enable effective action and learning.

9. Biodiversity concerns need to be integrated in all decision making tools, programmes and projects that feed into and constitute the national plan document. These tools include:
   a. **Biodiversity valuation** – systematically capturing the wide ranging benefits of biodiversity (genes, species and ecosystems) in monetary and non-monetary terms to reduce biodiversity degrading behaviour and enhance conservation. Nevertheless, valuation remains a complex and costly undertaking as it difficult to express ecosystem services and functions as well as the cultural, spiritual and aesthetic values of biodiversity in monetary terms. To many communities, biodiversity is priceless too; hence the need for a strategic approach with clearly defined purpose and expected outputs/outcomes of the valuation exercise.

   b. **Natural resource and national income accounting**: incorporating the physical and monetary value changes of biodiversity in GDP to help make well informed economic and investment decisions. There is a need to build upon such initiatives like the Gaborone Declaration for Sustainability in Africa 2012, that recognized the 'limitations' of gross domestic product and called for the development of systems to value environmental and social aspects of economic progress.

   c. **Economic, financial and investment incentives and disincentives**; Designed to influence behaviour of biodiversity users, these take the form of a new policy, law or economic or social programme, and include subsidies, tax breaks (tax holidays and lower tax rates) as well as access to bank loans at discounted lending rates.

   d. **Land policy and land use planning:** integrating biodiversity in land policy, tenure arrangements and land use plans to influence users of land to develop biodiversity conserving behaviour, promote the sustainable management of the commons and promote livelihood strategies that is consistent with the goal of biodiversity conservation, sustainable land use and management practices.

   e. **Standards, codes of conduct, certification schemes, guidelines and good practices:** integrating biodiversity in industrial standards, codes of conduct (e.g.,

mining, maritime activity, fishing, etc.), certification schemes (e.g., timber, labour and general sustainability certifications), guidelines and good practices (e.g. tourism, corporate social and environmental responsibility.

f. **Ecosystem approach to urban development:** Taking a holistic view of towns and cities as ecosystems and integrating biodiversity in decision making process to ensure the economic, social, cultural and environmental wellbeing of people and move to ultimately achieve sustainable cities and societies'.

g. **Strategic environmental assessment (SEA), Environmental impact assessment (EIA) and other assessment tools:** embedding the biodiversity mitigation hierarchy: (i) avoidance: avoiding creating impacts from the outset; (ii) minimization: if avoidance is not possible, taking measures to reduce the duration, intensity and / or extent of impacts; (iii) rehabilitation / restoration: if impacts cannot be avoided or minimized, taking measures to rehabilitate degraded ecosystems following exposure to impacts; and (iv) take additional measures to offset any residual impacts in SEAs, EIA, and other assessment tools.

h. **National biodiversity offset policy:** establishing mandatory and voluntary offsetting schemes with measurable outcomes achieve NNL and preferably a NG of biodiversity on the ground with respect to species abundance and variability, habitat structure, ecosystem functions and services, people's use, educational, cultural and spiritual values associated with biodiversity.

10. The National Biodiversity Strategy and Action Plan (NBSAP) has been designated as the primary tool for the realization of biodiversity targets as well as for integrating biodiversity in national plans and decision making processes (UN 1992). Building on CBD Secretariat's report, September 2016 update on progress in implementing NBSAPs and the UNEP and GEF sponsored interim assessment study of revised NBSAPs,[3] this study propounds NBSAP as an instrument of national planning; while short, medium and long term plans need to be key instruments for realizing biodiversity targets set forth by the NBSAP. Equally important is building synergies among national plans/budgets, NBSAPs and national strategies to combat climate change, desertification and all biodiversity related sectoral strategies.

11. Effective resource mobilization, critical as it is, requires a comprehensive approach and a series of short to medium term national biodiversity finance plans. These plans need to encompass: domestic resource mobilization strategy, human and institution building (national budget and financial planning), incorporation of biodiversity in

[3] Pisupati, B. & Prip, C. 2015. Interim Assessment of Revised NBSAPs

sectoral development financing, fiscal and monetary incentives, new and innovative financing instruments, (e.g., debt for nature, environmental funds, creation of markets, etc.), external funding, and engagement of the private sector.

12. For the integration of biodiversity concerns in the national process to succeed, it is important to ensure that (i) the policy and legal framework for integration is put in place; (ii) there is a lead government agency to guide and coordinate the integration process; (iii) fully nationally owned, internally driven and holistic integration strategy is developed.

13. In conclusion, this study underlines the critical role these tools and guidelines for integrating biodiversity in national planning and economic decision making processes play in positioning a country on a sustainable development path toward the attainment of UNSDGs 2030 and Agenda 2063. While these tools and guidelines make integration a doable task, the study cautions that integration is neither a quick fix nor something amenable to short cuts. It is rather a cyclical and continuous process of planning, actions, learning and relearning with multiple entry points that requires developing the requisite capacity (human, institutional and policy/ legal) for planning, guiding, managing and coordinating; broad based participation and putting in place nationally owned and internally driven integration processes.

14. Since the CBD came on board in 1992, the issue of integrating biodiversity in national planning processes has been tackled by a number of institutions at the global, regional and national levels. Commendable efforts were also made and valuable publications made available. While this study builds on lessons learned, it represents a departure from the past in the sense that it values processes, promotes knowledge development on the *raison d'etre* of integration, advocates holistic approach with multiple entry points, addresses issues of what, where and how to integrate biodiversity in the planning and critical decision making processes over time, space and sector.

15. It is strongly recommended that this study be tabled to an Africa wide validation workshop. The workshop will be a critical first step toward the creation of an enabling environment for internalization and building a sense of ownership of the tools and guidelines by AU member states. Once the tools and guidelines are improved upon based on feedback received, it is further recommended that a domestication agenda be crafted and pilot tested in selected countries.

## Glossary of Key Terms

**Biological diversity (biodiversity)**: Described in terms of genes, species, and ecosystems, biodiversity, as used here, refers to the abundance and "variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems." (CBD, 1992)

**Biodiversity concerns**, as used here, refers to all biodiversity related issues, including threats to biodiversity, anthropogenic and non-anthropogenic drivers of these threats, household, community and state level responses to threats, impacts on the ecological integrity, abundance and variability of species, ecosystems and genes.

**Biodiversity offsets -** are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss (NNL) and preferably a net gain (NG) of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity (IUCN 2015)[4].

**Biological resources**: comprises genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity (CBD, 1992).

**Biotechnology** - "any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use" (CBD, 1992).

**Compensation** - Measures to recompense, make good or pay damages for loss of biodiversity caused by a project. In some languages 'compensation' is synonymous with 'offset', but in this paper 'compensation' is a more general term of which biodiversity offsets are just one subset. Compensation may achieve NNL/NG (in which case it is an offset), but in other cases, compensation can involve reparation that falls short of achieving no net loss (and is therefore not an offset) (Kate and Crowe 2014).

**Ecosystem -** "a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit" (CBD, 1992).

[4] https://www.iucn.org/theme/business-and-biodiversity/our-work/business-approaches-and-tools/biodiversity-offsets

**Ecological equivalence –** used within the context of biodiversity offsets, this term is synonymous with the concept of 'like for like' and refers to areas with highly comparable biodiversity components. This similarity can be observed in terms of species diversity, functional diversity and composition, ecological integrity or condition, landscape context (e.g., connectivity, landscape position, adjacent land uses or condition, patch size, etc.), and ecosystem services (including people's use and cultural values). (IUCN,

**Environment** - the totality of all biophysical resources including air, water and land as well as to services the environment produces to maintain the functioning and maintenance of ecosystems.

**Genetic material** – "any material of plant, animal, microbial or other origin containing functional units of heredity (CBD, 1992).

**Genetic resources** – "genetic material of actual or potential value" (CBD 1992).

**Genetic diversity** - the sum of genetic information contained in the genes of individuals of plants, animals and micro-organisms (Pearce & Moran, 1994).

**Habitat** - "means the place or type of site where an organism or population naturally occurs" (CBD, 1992).

**Ecosystem diversity** – "the variety of habitats, biotic communities and ecological processes in the biosphere as well as the diversity within ecosystems. Diversity comprises: (i) functional diversity is the relative abundance of functionally different kinds of organisms; (ii) community diversity is the number sizes and spatial distribution of communities, and is sometimes referred to as patchiness; and (iii) landscape diversity is the diversity of scales of patchiness (Pearce & Moran, 1994)

**Natural resource**, as used here, refers to the quantity and quality of natural resources (land, water, minerals, flora and fauna, including forest, wildlife, other biota, sea, oceans, air, hydrological process, ecosystems functions and services, cultural and spiritual benefits derived from nature) that people require to lead a healthy and productive life; reproduce, grow, interact, build families and communities, transform their economies as well as trade with and relate to the rest of the world.

**Natural resource accounting**, as used here, refers to the systematic physical as well as monetary accounting of stocks and stock changes of natural assets and encompasses what is often known as "environmental accounting" and natural capital accounting.

**Protected area – "**a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives" (CBD, 1992).

**Species diversity** – refers to variability of species "populations within which gene flow occurs under natural conditions. Within a species, all normal individuals are capable of breeding with the other individuals of the opposite sex belonging to the same species, or at least they are capable of being genetically linked with them through chains of other breeding individuals. By definition, members of one species do not breed freely with members of other species." (Pearce & Moran, 1994)

**Sustainable use- "**means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations" (CBD, 1992).

## Introduction

This study, to develop tools and guidelines for integrating biodiversity in national planning processes in Africa, is an initiative of the Multilateral Environment Agreements (MEAs) Project, EC-ACP Programme of the Department of Rural Economy and Agriculture (DREA), African Union Commission (AUC). Funded by the European Commission (EC), the EC-ACP (African, Caribbean and Pacific Countries) Programme aims to strengthen capacities of: (i) the African Union Commission's (AUC) and Regional Economic Communities (REC's) role in environmental policy/programme coordination and leadership; and (ii) 49 African countries, which are ACP member states, to effectively meet their obligations and commitments under MEAs.

Since the adoption of the Convention on Biological Diversity (CBD) by the United Nations (UN) in 1992, biodiversity (shorter name for biological diversity) has dominated the environment and development discourse at the global, regional and national levels. Biodiversity is a complex and multifaceted resource that enters every realm of human endeavor: politics, economics, social, environmental, culture and religion: past, present and future. In Africa, biodiversity is the primary source of socioeconomic wellbeing; and a defining feature of the continent's history, social organization, culture and relations with the rest of the world.

The CBD designated the NBSAP as a primary tool and instrument for achieving biodiversity targets set; and for mainstreaming biodiversity concerns and opportunities in the national development planning and decision making processes. Nevertheless, almost a quarter century after the CBD came into being, the scope as well as the rate of implementation of NBSAPs is woefully inadequate with many of them are left in the periphery.

Biodiversity plays a vital role in every aspect of the African life now and generations to come. But it is a scarce and threatened resource, which merits high priority status among competing development goals backed by the requisite budgetary support. But the task of integrating biodiversity in national planning and decision making processes remains at rudimentary levels and a daunting task. The experience of the past two and half decades suggest a complex, multilevel and multifaceted task that has and would continue to pose serious challenges to governments, civil society, private sector and international development community. Equally challenging is developing synergies and interlinkages among various environmental legislations and MEAs.

According to the CBD Secretariat, as at August 2016, 52 out of the 55 African countries (see Annex I) have completed their respective NBSAPs. While some countries, for example, Burkina Faso and Egypt elaborated their first NBSAP back in 1999, some other countries, e.g., Botswana, Madagascar and Mozambique are on their third NBSAPs.

Target 2 of the Aichi Biodiversity Targets states “by 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.” Hence, this assignment of developing tools and guidelines for integrating biodiversity concerns in national planning and decision making processes is both timely and important.

As provided in the ToR, the primary objective of this assignment is “to develop tools and guidelines for integration of biodiversity into the national planning process.” Integration, here, refers to the inclusion of biodiversity concerns (threats, conservation and use, etc.) of biodiversity in the formulation and implementation of national development plans (short, medium and long term plans) as well as in policies and strategies of production sectors, such as agriculture, fisheries, forestry, tourism and mining with the view to achieving the sustainable economic, social and environmental wellbeing of people now and in the future.

This underlines the need for a holistic approach (across sectors, geographic space, hierarchical (macro and micro, local, national, regional and global levels) to addressing the complex political, economic, social and ecological issues of integrating biodiversity concerns in national planning and development decision making processes, which this study strives to achieve.

The first sections of the report present the conceptual framework and a brief review of Africa’s biodiversity wealth and its significance, experience in biodiversity related policy/ strategy development and lessons learned in the formulation and implementation of National Biodiversity Strategies and Actions Plans (NBSAPs) and others instruments designed to integrate biodiversity in the development decision making processes. This is followed by a detailed discussion of tools and guidelines already available and new ones to be considered to effectively integrate biodiversity in national planning processes in the era of the 2030 Sustainable Development Goals (SDGs) and the African Agenda 2063. The final sections discuss an implementation framework for tools and guidelines developed, including approaches to financial resource mobilization and ensuring sustainability of the integration processes. The report is capped by concluding remarks and recommendations on the way forward.

## Conceptual Framework and Study Methodology

### a. Understanding biodiversity, integration and its value added

The term `biological diversity', shortened to `biodiversity' encompasses the number, variety and variability of all species, genes and ecosystems within which living things exist and reproduce. Genetic diversity is the sum of genetic information contained in the genes of individuals of plants, animals and micro-organisms. Biodiversity loss, thus, refers to changes in any one of them, although easier understood in terms of decline in the size and quality of forests, wetlands, landscapes, freshwater and marine habitats and genetic resources.

In the African setting, the conservation of biodiversity and socioeconomic development are inseparable. Biodiversity conservation has to be integrated in every aspect of development decision making; while development needs to be integrated into biodiversity conservation. Integrating biodiversity concerns in the planning process is, thus, about ensuring macro and sectoral policy and management decisions embrace biodiversity conservation and sustainable use through recognizing and measuring/estimating the actual and potential contribution of biodiversity to development and economic growth. It is also about ensuring development and technological transformation contribute to the enhancement of conservation, sustainable use and equitable sharing of benefits derived from the use of biodiversity across generations.

Integrating biodiversity in national planning and decision making processes has several benefits:

(i) Maximizes growth and enhances sustainability. Integration helps to strengthen synergies between potentially competitive goals: economic growth and biodiversity conservation towards win-win arrangements. It also helps to reduce development costs through avoiding unnecessary duplication of effort.

(ii) Helps to internalize the costs of biodiversity losses and benefits of conservation and embrace conservation and sustainable use as critical tools for development.

(iii) Improves cross-sectoral linkages and institutional coordination. Sector ministries, government agencies, bilateral and multilateral development institutions tend to operate independently and focus on relatively narrow mandates with closed decision making processes. This has resulted in programmatic and institutional fragmentation, unnecessary competition for resources and wastage of scarce human, material and financial resources. Integrating biodiversity in national planning processes bridges gaps (intra and inter sectoral) between those institutions responsible for the planning and management of natural resources/

protecting the environment and those responsible for development policy making and managing the economy.

(iv) Facilitates free flow of information and more rational policy-making. The free flow of information arising from biodiversity integrated in national planning helps decision makers to identify externalities and negative environmental impacts of investment projects and programs at early stages of decision making enabling timely prevention and mitigation of adverse impacts.

(v) Helps pool and expands knowledge. Biodiversity concerns integrated in development planning and policy-making enables to bring together expertise, experiences and lessons, which would help to base policy making on broader and deeper knowledge.

Integration is neither a one-off undertaking nor quick fix, but a continuing and long term process. It requires a holistic approach encompassing knowledge development (awareness raising and data generation); policy and institutional changes (changing the political and economic management mindset); a technical process (identification of indicators, analysis, clear priority setting, and implementation mechanisms); involvement and engagement of broad range of actors/stakeholders) across sectors and at all hierarchal levels (local, subnational and national); and dedicated leadership to guide, coordinate and manage the necessary links and processes.

Integration of biodiversity in planning and decision making processes, while complex and nonlinear, is simple, divisible, demonstrable and replicable. It is simple because it is enshrined in the African natural resource management practices that well preserved nature until the advent of greed and natural resource mismanagement of the colonial and post-colonial era that wreaked havoc to Africa's biodiversity. Integration is also divisible because it can start from something small (local), grow big and be easily replicated thus offering huge policy and programmatic space.

**b. Conceptual framework**

The conceptual framework of the study focuses on clarifying where in the planning cycle to integrate and what to integrate. Accordingly, it postulates a two-track approach:

(i) Integrating biodiversity concerns at all stages of the national planning cycle: and
(ii) Integrating all aspects of biodiversity (threats and risks; causes and effects; opportunities for maximizing economic, social, cultural and ecological (ecosystem services and functions/ climate) benefits that accrue to sound biodiversity strategies/ policies.

As the two diagrams (below) illustrate, integration of biodiversity in the national planning processes needs to be undertaken at all stages of the planning cycle: data generation, plan preparation, plan elaboration, plan implementation, monitoring and evaluation feeding back to plan preparation. Integration does not have an end point. Decisions made at each stage of the planning cycle impacts biodiversity conservation, sustainable use and equitable sharing of benefits derived therefrom.

An initial critical step is the identification of indicators (quantitative and qualitative; processes and results) and data generation. The quality and coverage of data would have to be continuously expanded and improved upon to capture all pressure factors on and threats (actual and potential threats) to biodiversity, how biodiversity users (individuals/ communities/ governments) respond (both negatively and positively) to these pressure factors, effects/impacts of responses of biodiversity users and mitigation factors (see diagram 2). The values of biodiversity, changes (both positive and negative) in these values, causes and triggers of these changes need to be reflected at all stages of the decision making processes.

### b.1. Integrating biodiversity at all stages of the national planning cycle.

Typically, a national planning process involves five major steps: (i) data generation; (ii) plan formulation; (iii) plan elaboration; (iv) plan implementation and (v) monitoring and evaluation.

Data generation is a fairly straight forward task that involves identification of indicators, data gathering (through surveys, census and administrative records), data quality control, data analysis and reporting.

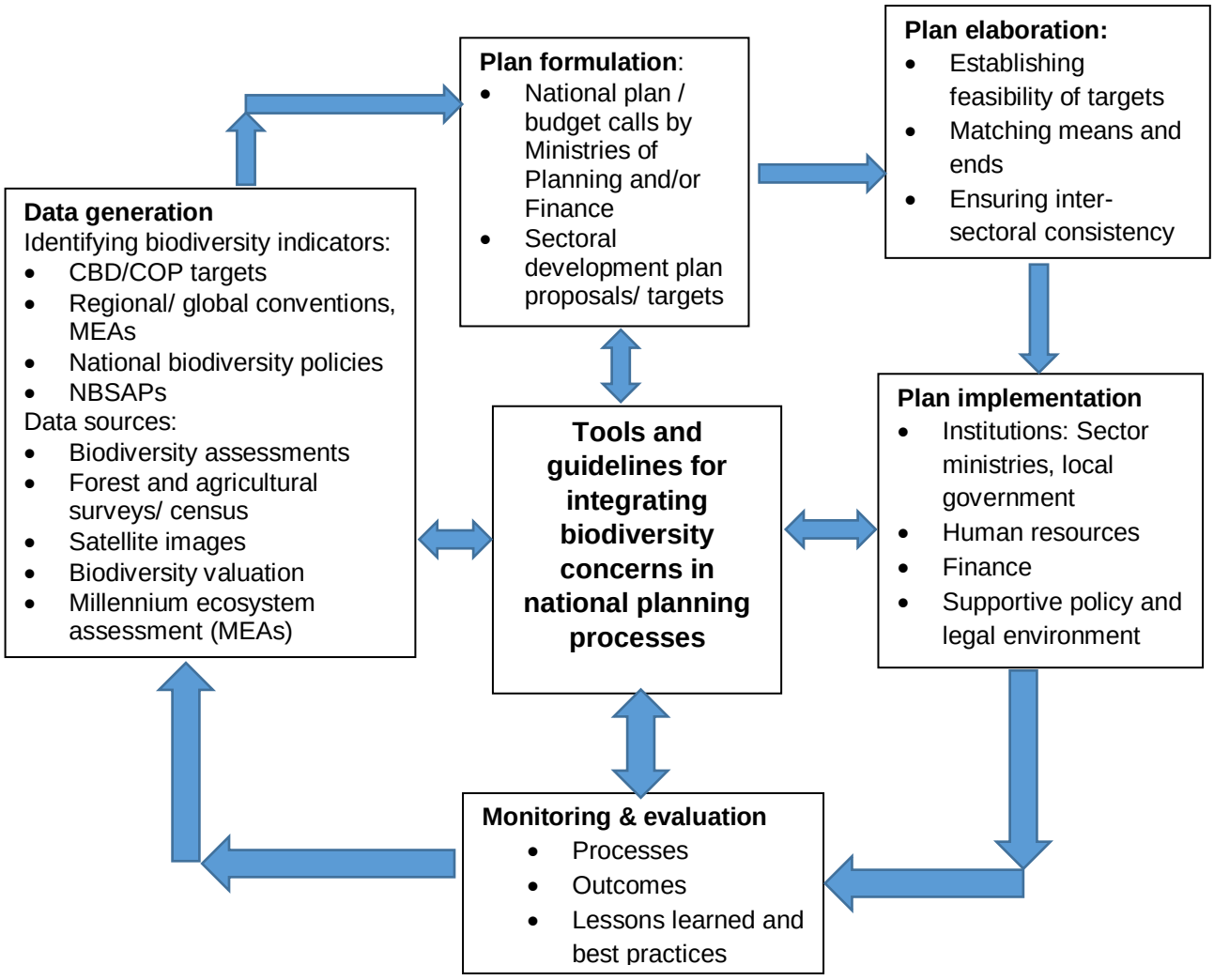
Plan formulation involves two critical processes: preparing and making the plan/ budget call, which is prepared by the ministry of development planning or ministry of finance, whichever exists in a country. The plan call (plan guidance document) is generally a short document that explains the government's development policy including broad goals, strategies, priorities as well as monetary parameters for the coming year/years. The plan call serves as a framework for the preparation of sectoral and sub-national level plans. Indeed, the plan call offers a big window of opportunity to bring on board biodiversity related issues.

Based on the framework document received from the ministry of planning/finance, sector ministries and government agencies formulate their respective plans. The plan formulation task involves situation analysis, identification of problems/constraints, setting of priorities and targets and budgeting. While each sector ministry / government agency is free to include any project idea or proposal that it attaches importance and fight for their support at the ministry of finance / planning level. For example, if biodiversity concerns are already included in the budget/plan call, institutions entrusted with the task of

conserving biodiversity do not have to fight for recognition and acceptance of project proposals, but only for the size of the budget.

The diagram below illustrates the national planning cycle and the importance of integrating biodiversity concerns at all stages.

Diagram 1. **Integrating biodiversity at each stage of the planning cycle**




Plan elaboration process takes place at the level of the ministry of finance/plan level. It commences with the submission of plan/project proposal and involves a thorough analysis of proposals submitted with the view to: establishing feasibility of targets, matching means and ends and ensuring consistency with national priorities. Here, biodiversity issues will have smoother ride if already incorporated in the plan /budget call.

The plan is often approved by the Council of Ministers prior to its submission to parliament for final approval. At the level of parliament and council of ministers, it is often too hard

to introduce change, i.e., add a new idea or project. While biodiversity awareness at both levels facilitates approval, all the substantive work regarding integration of biodiversity has to be done by the ministry of finance/planning and sectors.

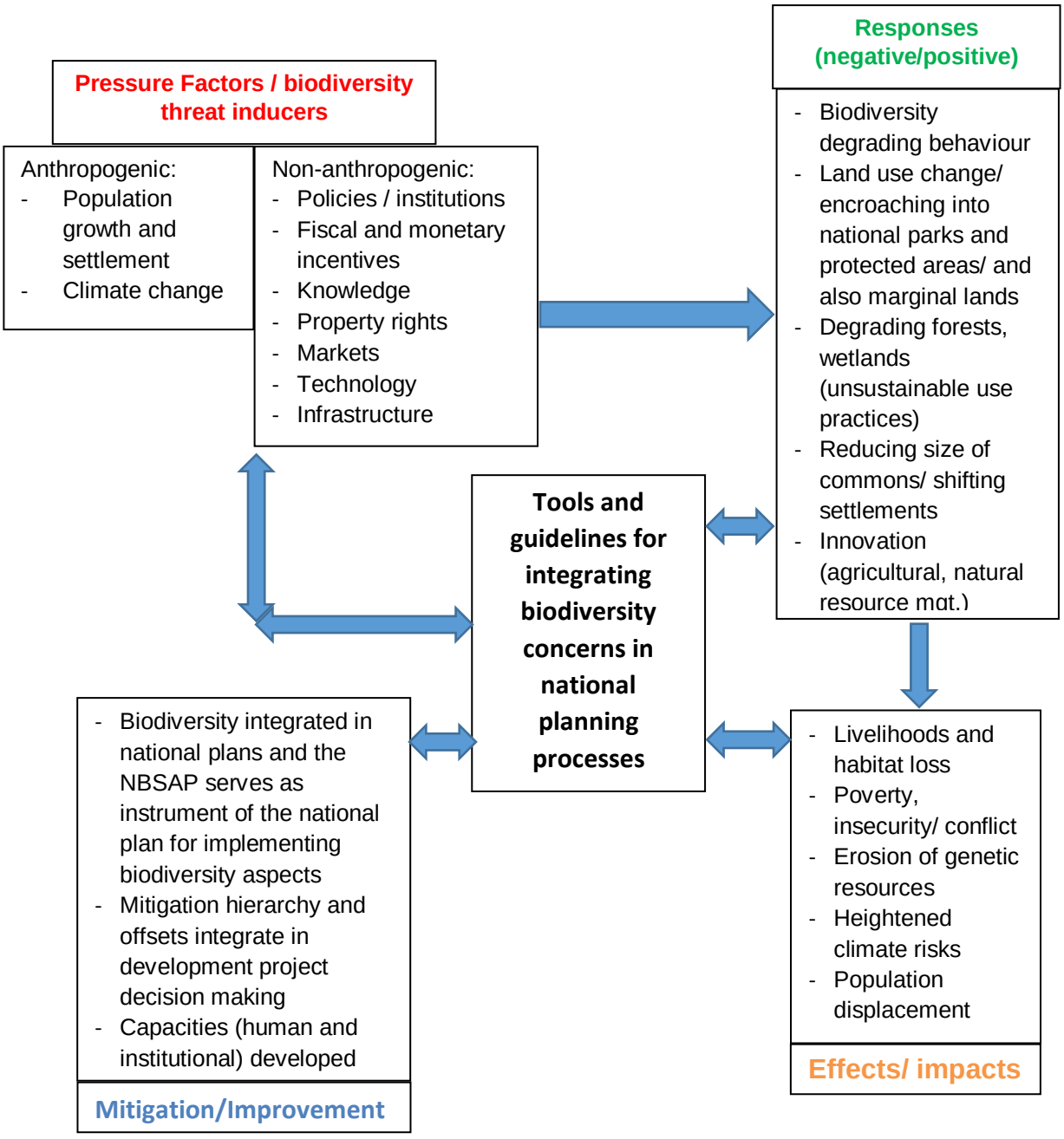
Once the plan is finally approved, often by parliament, it will be sent back to ministries and government agencies for implementation. Implementation has been the Achilles hill of the African development planning as well as NBSAPs experience. Implementation constraints often cited are: limited human resources both at the leadership and technical levels, inadequate finance and institutional capacities and absence of policy enforcement mechanisms, which reflect, in part, weakness in plan formulation.

The monitoring and evaluation process includes setting in place follow up and monitoring of fulfillment of targets (processes, results, outputs and outcomes), distilling lessons learned and feeding into the planning cycle in a participatory manner.

### b.2 Integrating all aspects of biodiversity concerns

The conceptual framework, presented below, underlines the importance of integrating all aspects of biodiversity concerns in the planning and decision making processes. It postulates that in highly biodiversity dependent economies, which most African countries are, tools and instruments to integrate biodiversity in planning and decision making processes need to be anchored in full understanding of biodiversity threats and pressure factors, response to that pressure, impacts and effects of the response biodiversity as well as mitigation measures sought.

Diagram 2. **Integrating all aspects of biodiversity concerns**




As the above diagram illustrates, tools and guidelines need to capture how and in what ways peoples' behavior to conserve and use biodiversity is influenced by both anthropogenic and non-anthropogenic pressure factors. The anthropogenic factors include: climate change, population growth and settlement, while non-anthropogenic factors include: policies / institutions, fiscal and monetary incentives, knowledge, property rights, markets, technology and infrastructure. Biodiversity users and decision makers respond to these pressure factors through adopting various coping mechanisms at the

household, community, and national levels. At the local/farm level, coping strategies include: land use change; encroaching into marginal lands; degrading forests and wetlands, reducing size of commons (grazing areas), and at times shifting settlements.

These responses under conditions of technological and knowledge limitations as well as weak governance, which many African countries grapple with, lead to lowering consumption, livelihoods insecurity, asset depletion hence increased poverty, erosion of state legitimacy because the state is perceived to have failed to deliver goods and services needed by society, migration to other areas in search of livelihoods sources. It is at this stage that rational governments will be considering mitigating measures that include formulation of sound biodiversity and development policies and strategies, tools, investment policy, improved knowledge, education / health, and developing human and institutional capacities, which in turn influence the conservation and use of biodiversity as well as sharing of benefits derived from there.

### c. Integration: Making it Happen

The previous sections discussed the vital importance of integrating all aspects of biodiversity concerns (threats, risks, opportunities, drivers and enablers) at each stage of the planning cycle (data generation, plan preparation, plan elaboration, implementation and monitoring and evaluation). This can be a complex and messy process without a strategic approach on how to effect it.

An initial step, thus, is the formulation of a strategy for integration. This approach has to be anchored in strong knowledge on biodiversity issues and political economy of the interaction of biodiversity and development planning and policymaking. Critical in this process is identifying biodiversity related indicators, generating data and prioritizing them in the light of broader acceptability and easiness to apply. As explained above, there is no specific starting and ending point for integration. All available opportunities need to be used include biodiversity related data at all levels of the planning and development decision making: (i) national level planning process – short, medium and long term planning; (ii) national budget - both at the sectoral and national levels; (iii) development assistance programs; (iv) sectoral planning processes; and (v) subnational planning.

## Biodiversity and Development Dynamics in Africa: the Substance of Integration

The conservation and use of biodiversity are inextricably linked to development and social wellbeing. A majority of the African population depends on biodiversity for livelihoods, trade and social relations, thus making biodiversity a central/ mainstream issue to every societal decision making process. The conservation of species, ecosystems and genes (variability, diversity and integrity) is, thus, not only a conservation task but also a food and livelihoods security, poverty reduction and in general a development imperative.

Reducing deforestation and biodiversity loss, for example, have positive impact on poverty reduction, food security, energy availability, economic transformation, social wellbeing, and moderating the scale of climate change through enhancing the resilience of human societies and ecosystems.

While biodiversity conservation is undeniably the linchpin of Africa's economic and social wellbeing, post-colonial development policies and decision making processes fashioned by neoclassical economic models have, however, pushed biodiversity from the center to the periphery. The emphasis given to economic growth at any cost, combined with the assumption that natural resources are infinite to be obtained at low economic cost, resulted in abusive and misuse of biodiversity, destruction of ecosystems and heightened vulnerability to climate risks. The effective integration of biodiversity in planning and development decision making processes has the potential to reverse these trends and place countries in a sustainable development path.

### a. State of Africa's biodiversity: Challenges and Opportunities for Conservation and Sustainable Use

Africa's immense biodiversity wealth (abundance and variability) and challenges need to be seen in the context of Africa's development needs and human settlement patterns. Suffice it here to mention a few indicators juxtaposing assets against liabilities amply presented in UNEP's report, State of Biodiversity in Africa:

- **Abundance in diversity:** Africa is endowed with a quarter of the world's mammal species, which is further enriched by the variety of both ecosystems and genes. "Five of the 20 global centres of plant diversity are located in Africa; while Ethiopia and the Upper Nile are recognized as global centres of crop plant genetic diversity." [5]

- **Heavy concentration of biodiversity in small geographic space**. The distribution of Africa's biodiversity wealth is uneven across countries and ecoregions with much of the wealth occurring in four of Africa's 119 ecoregions (about eight percent of Africa's total land area) and nearly two-thirds of plant and vertebrate species represented in approximately one percent of its land area.[6]

- **Biodiversity and mineral occurrences overlap**. According to the AfDB, Africa hosts about 30 percent of the world's mineral reserves and even a higher share of deposits of diamonds, vanadium, manganese, platinum, cobalt and gold.[7] These

[5] Ibid.
[6] UNEP 2008 Africa Atlas of our Changing Environment, UNEP 2010 State of Biodiversity Report in Africa.
[7] https://www.afdb.org/en/blogs/afdb-championing-inclusive-growth-across-africa/post/mining-industry-prospects-in-africa-10177/

mineral occurrences as well as hydrocarbons, however, are concentrated in a few countries like the Democratic Republic of Congo (DRC), Tanzania, Zambia, Uganda and South Africa, which host a large chunk of Africa's endemic plant and animal species, including reptiles, mammals, amphibian, butterfly and bird species[8].

- **Key biodiversity areas are also densely populated and intensive farming areas with low technological intake**. "The most important centres of vertebrate and plant diversity are inhabited by more than 100 million people and are areas of intensive land use."[9] These places belong to what has been called biodiversity hotspot; a term coined by Norman Myers in 1988 to describe a biogeographic region characterized both by exceptionally high levels of plant endemism and serious levels of habitat loss.[10] In Africa, these include the Coastal Forests of Eastern Africa, Eastern Afromontane and the Horn of Africa, which are also densely populated and heavily cultivated areas. "Approximately half of Africa's terrestrial eco-regions have lost more than 50 percent of their area to cultivation, degradation or urbanization."[11]

- **Cultural cohesion and biodiversity sustainability are closely linked.** Biodiversity has been and continues to be an integral part of the African culture, identity, family cohesion and heritage. "Cultures develop and evolve together with plants as people gain ever deeper of the uses of specific plant species."[12] Climatic factors that promote high biodiversity, such as water availability, fertile soils, availability of fuelwood and construction materials have also attracted human settlement. "Patterns of biodiversity and language diversity coincide."[13] Thus, given the discernible overlap between cultural centres and centres of biodiversity, the adverse impacts of biodiversity and habitat losses on family ties, cultural identity social cohesion and peaceful coexistence are apparent.

- **Few and seriously threatened protected areas**. Targets 4 and 5 of the Strategic Plan for Biodiversity 2011-2020 state that at least 10 percent of each of the world's ecological regions should be effectively conserved.[14] Africa has over 2 million $km^2$ of protected areas (an area four times the size of Spain), but represent less than

[8] UNEP 2008 Africa Atlas of our Changing Environment, UNEP 2010 State of Biodiversity Report in Africa
[9] UNEP 2006, African Environment Outlook 2: Our Environment, Our Wealth
[10] http://editors.eol.org/eoearth/wiki/Hotspot#Africa
[11] UNEP 2006, African Environment Outlook 2: Our Environment, Our Wealth
[12] UNEP 2010, State of Biodiversity In Africa
[13] UNEP 2006, African Environment Outlook 2: Our Environment, Our Wealth
[14] The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

10 percent of Africa's geographic area. Of the 119 ecoregions in Africa, 89 have less than the 10 percent of their area officially protected and some ecoregions with high biodiversity values, including Mt Cameroon and the Bioko area, the Eastern Arc forests, the Succulent Karoo, the Ethiopian montane forests remain unprotected[15] Africa's large coastal and marine ecosystems with 40,000 km coastline globally recognized for its high marine biodiversity and endemism of fish, corals, snails and lobsters remain unprotected.

- **African economies are among the fastest growing in the world, but remain commodity driven and heavily biodiversity dependent.** Africa has registered impressive growth rates and significant reduction of poverty, although remains largely commodity driven, biodiversity degrading and low employment generating[16]. According to the African Development Bank, in 2015, growth in real GDP is estimated at 3.6%, higher than the 3.1% for the global economy and 1.5% for the euro area. Africa remained the world's second fastest growing economy after East Asia. In 2015, sub-Saharan Africa (excluding South Africa) grew faster than the continental average, at 4.2%.[17] As discussed below, on the biodiversity side, however, habitat loss and threats to social fabric as well as to national parks and protected areas, including to those recognized as natural world heritage sites have continued to be severe.

- **Biodiversity degradation and habitat loss continue unabated.** Currently, "the major cause of biodiversity loss in Africa is habitat loss and that is likely to remain true for the first third of the 21st century" (UNEP-WCMC 2016, UNEP 2010, UNEP 2006). Due to extensive agricultural practices with low technological input, deforestation driven by the huge demand for biomass energy and high demand for timber, rapid urbanization, about a half of Africa's terrestrial eco-regions have lost more than 50 percent of their biodiversity cover; the Mandara Plateau mosaic, Cross-Niger transition forests, Jos Plateau forest-grassland mosaic, and Nigerian lowland forests have gone through more than a 95 percent transformation while the species-rich lowland Fynbos and Renosterveld and the forests and grasslands of the Ethiopian Highlands have lost more than 80 percent of their original cover.[18]

[15] UNEP 2006, African Environment Outlook 2: Our Environment, Our Wealth

[16] African Agenda 2063, AU 2015

[17] AfDB, African Economic Outlook 2016, Sustainable Cities and Transformation

[18] UNEP 2006, African Environment Outlook 2: Our Environment, Our Wealth

## b. Continental Initiatives and the Implementation Debacle

Conservation and the sustainable use of biodiversity has, indeed, been a leading goal of the African Continent since independence. Back in 1968, only five years after its formation and at the height of the liberation struggle, the Heads of State and Government of the Organization of African Unity (now the AU) adopted the African Convention on the Conservation of Nature and Natural Resources at its meeting in Algiers. This Convention was later revised to reflect the then prevailing challenges and opportunities and readopted at the second Summit of the African Union, Maputo, 2003. African countries are also parties to a number of international conventions, including, the CBD, CITES, UNCCD, UNFCC, Ramsar (wetlands) Basel and its sequel the Bamako Convention on hazardous waste and Cartagena Protocol on Biosafety as well as the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization

Further, it is worth mentioning laudable initiatives like the African Common Position on Climate Change and subsequent creation of the African Climate Policy Center (ACPC), Framework for Land Policy in Africa and subsequent creation of the African Land Policy Center, etc., which are all joint initiatives of the African Union Commission, African Development Bank and UN ECA.

The 2014-2017 AUC Strategic Plan, an integral part of Agenda 2063 calls for: (i) reducing habitat loss while maximizing positive gains, (ii) harnessing synergies between biodiversity conservation and poverty reduction; (iii) adopting integrated, multi-sectoral approaches, wherever possible, promoting national and sub-regional ownership and management of natural resources; (iv) integrating environmental protection in national development plans; (vi) promoting a holistic approach to the use of environmental goods and equitable sharing of the benefits of environmental protection; and (vi) engaging effectively in international cooperation and contributing to the realization of goals and targets enshrined in global environmental conventions.

African Agenda 2063, the fifty year strategic framework for Africa's development and technological transformation adopted by the Assembly of Heads of State and Government in January 2015 placed high priority to biodiversity conservation, sustainable natural resource management and accounting, although its popular version fails to mention these key goals.

Continental level initiatives face two challenges: limited buy-in by member states and low commitment by those who have bought-in to implementing the initiative[19], which have left

[19] Nhamo, Senia and Azeng, Therese, A review of African Regional Frameworks, 2014.

integration of biodiversity in continental level planning and decision making processes at rudimentary levels.

### c. The Substance of Integrating Biodiversity in the Planning Process

Biodiversity, economic and social systems are intertwined in a highly complex manner. This complexity is compounded in the African setting, as the previous section illustrated, by the concentration of biodiversity resources in a small geographic space; overlap between biodiversity abundance and precious minerals and between biodiversity abundance and human settlements / intensive farming practices, to mention few.

Integrating biodiversity concerns in development policy and planning has been a central issue since the ushering in of biodiversity to the global discourse. Chapter eight of Agenda 21 called for the integration of environment and development in decision-making (UNCED, 1992). Further, Article 6b of CBD states that Parties have an obligation to: "Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies" (UNCED, 1992).

Ten years after the CBD, the COP VI in 2002 stated the recognition that "the objectives of the Convention will be impossible to meet until consideration of biodiversity is fully integrated into other sectors as the most important lesson of the last ten years." Almost a decade later, the Goal 3 of the Strategic Plan for Biodiversity 2011-2020 called for the integration of biodiversity concerns into national sectoral and cross-sectoral plans, programmes and policies.

In the African setting, integration of biodiversity concerns in national planning and decision making processes is a two-way process. Any endeavor (policy and practice) to conserve and sustainably use biodiversity needs to integrate development and poverty reduction concerns; while any effort to develop the economy and reduce poverty needs to integrate biodiversity. This integration has multiple features and entry points.

**(i) Biodiversity conservation as a development imperative**. Integrating biodiversity in national and sectoral planning and economic decision making processes, development models, policies and action plans and operational programmes, would have immediate benefits in improving productivity and put the country on the sustainable development course. Biodiversity, being a source of livelihood for a majority of the African population, a biodiversity conservation and sustainable use policy should not be seen as independent of sectoral policies, but

as a vital instrument to implement national and sectoral development plans and poverty reduction strategies.

(ii) **Pervasive poverty and habitat loss are two sides of the same coin.** In economies highly dependent on biodiversity, loss of vegetation cover, recurrent drought, low productivity and poverty reinforce one another. Incidence of poverty tend to be high in ecologically degraded areas (Ejigu 2009). Reducing habitat loss and restoring ecosystems, thus, can help achieve both rural livelihoods security and biodiversity conservation simultaneously. Biodiversity conservation can have an immediate and positive impact on poverty reduction.

(iii) **Biodiversity conservation as an instrument for conflict resolution and peace building.** Many of Africa's conflicts are triggered by biodiversity loss and natural resource depletion, which in turn resulted in dislocation, mass migration and encroachment into relatively fertile lands, hence conflicts (Ejigu 2006). Measures taken to jointly develop resources and the drive for win-win arrangements will help resolve conflicts and build peace, for example, transboundary resources, community-based forest management or joint forest management, promotion of traditional multi-species and multi-variety agricultural practices, securing access to medicinal resources for local use, strengthening traditional cultural practices governing the use of wild resources, clarifying disputes over land tenure, etc.

(iv) **Enhancing sustainability.** Integration of biodiversity in planning and decision making processes can help minimize negative impacts and maximize biodiversity benefits of sectoral production and services. For example, in the fisheries sector, measures to control fish catches and pollutants and eliminate fishing practices on sea bottom habitat, will help improve fish stock. In the area of crop cultivation, minimizing the use and optimizing the application of chemical fertilizers and pesticides goes a long way to reduce negative impacts on groundwater, surrounding habitats and wildlife**.**

(v) **Biodiversity policies and legislations need to be accompanied with effective implementation.** To respond to multiple challenges and calls made by MEAs, Africa countries have developed national environmental policies, including national conservation strategies, national environment action plans, national biodiversity action plans, national action plan to combat desertification (NAPA), and others. The experience, however, shows that environmental legislations, more than any other sector, have failed to be implemented properly; while capacities in ministries, regions, municipalities and institutions remain weak. Not least, unsustainable consumption patterns have set in with increasing threats of urban pollution.

Integration of biodiversity, thus, has to be effected at all stages of the policy and legislative making and enforcement process.

**(vi) Climate change and biodiversity**. Africa is the most vulnerable continent to climate risks[20] and impacts are felt in almost all sectors. There is a two way link between climate change and biodiversity. While biodiversity loss is expected to worsen water stress, fragmentation of ecosystems and species ability to adapt while rising water temperatures in large lakes may decrease fish stocks. On its part, biodiversity and habitat losses contribute to greenhouse gas emissions, which are important factors behind atmospheric temperature increases. Some studies put the impact of climate change on biodiversity at a much greater scale. "Climate change alone is expected to threaten with extinction approximately one quarter or more of all species on land by the year 2050, surpassing even habitat loss as the biggest threat to life on land."[21]

## d. Review of key tools and instruments developed to integrate biodiversity concerns in development policy

### d.1. National Conservation Strategies (NCS)

The National Conservation Strategy (NCS), sponsored by IUCN, was the earliest global tool developed to help conserve nature and natural resources at the national level. The NCS followed the launch of the World Conservation Strategy (WCS) in 1980, a joint publication of IUCN, UNEP and WWF, which recommended the formulation of national and subnational conservation strategies (NCSs) to promote and speed up biodiversity conservation and sustainable development. NCS was initiated in 40 developing countries. Botswana, Zambia, Zimbabwe, and Ethiopia were among the countries in Africa.

The World Conservation Strategy (WCS) was the earliest global initiative designed to promote the pursuit of "sustainable development through the conservation of living resources." WCS endeavored to vindicate the link between nature conservation and human wellbeing and sustainable development and identified priority actions. Source: IUCN, UNEP and WWF, 1980. The World Conservation Strategy (WCS): Living Resource Conservation for Sustainable Development.

[20] UNFCC, United Nations Fact Sheet on Climate Change

[21] http://www.chgeharvard.org/topic/climate-change-and-biodiversity-loss

NCSs were instrumental in building awareness and mobilizing resources for the conservation of nature. However, NCSs generally failed to be mainstreamed in national planning and decision making processes, and making any kind of impact on biodiversity conservation, although country experiences varied on degree of failure.

**Botswana's NCS Experience**

- Botswana's NCS was prepared in 1985 funded by NORAD, SIDA, the EEC, the Netherlands, UNDP, UNEP and USAID.
- Preparation process combined expert analyses and extensive consultation
- Adopted by the Cabinet in 1990; and was followed by the establishment of an NCS Advisory Board answerable to Cabinet
- A Coordinating Agency to implement the strategy was also created with liaison officers in each ministry and NGOs
- Findings suggest that: "NCS initiative stalled; and NCS Agency leadership on controversial issues and environmental impact studies noticeably absent." Source: George Honadle, 1994. Botswana's National Conservation Strategy: Organizing for Implementation.

Among the NCSs predicaments were:

(i) Lack of political commitment to implementing key provisions of the NCS. For example, the Botswana experience, which was highly consultative, lacked the necessary political commitment to implementing the bas (see box). In the case of Ethiopia, the NCS was initiated and spearheaded by the then powerful and respected Office of National Central Planning and involved a national workshop with broad stakeholder participation. It saw the seeds of district level environment planning and creation of the national Environment Protection Authority (EPA) under the office of the prime minister. However, it failed to make any kind of impact on curbing biodiversity degradation or reducing threats to even national parks designated as world natural heritage sites. Suffice it here to mention that "since the 1980s, Ethiopia has lost about 90% of its elephant population" (Sintayehu 2016).

(ii) Largely technocratic/expatriate/donor driven, NCS remained, operationally, a standalone undertaking that failed to impact key macroeconomic, investment and social decisions.

(iii) Weak treatment of integration of conservation and development and cross-sectoral coordination (Prescot-Allen, 1986). The NCS was not being implemented as envisaged across sectors and hierarchical levels.

Undoubtedly, many important lessons were learned from the NCS experience that were valuable inputs to the NBSAPs process.

## d.2. The NBSAPs Experience and Lessons Learned

As at August 2016, 52 out of the 55 African countries have completed their respective NBSAPs (see Annex I). Some countries, for example, Burkina Faso and Egypt elaborated their first NBSAPs back in 1998. A majority of African countries had their first NBSAPs in 1999 and subsequent years and are on their second NBSAPs, except Botswana, Madagascar, Morocco, Mozambique and Niger, which are on their third NBSAPs. There is, thus, a wealth of experience to fully understand constraints and prospects in the use of NBSAPs as tools for integrating biodiversity concerns in national planning and decision making processes.

As can be recalled, the CBD (1992) designated the NBSAP as the primary planning tool and key instrument for translating the CBD into action at the national level and for achieving biodiversity targets agreed upon at the global level. More specifically, Article 6 of the CBD called on all signatory Parties to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt their existing strategies, plans or programmes to the goals and proposed actions of the CBD. It further called upon Parties to integrate the conservation and sustainable use of biodiversity into sectoral, cross-sectoral and subnational activities.

The issue of integration of biodiversity in development policies, plans and decision making processes has, thus, been central to the NBSAPs from the beginning. It was believed that for NBSAPs to be effective in halting biodiversity loss, enhancing conservation and sustainable use, they need to be fully woven into national, sectoral and cross-sectoral plans and programmes; not be developed in isolation. However, almost a quarter century later, the task of integrating biodiversity in national planning and decision making processes remains novice and a daunting task as it has always been.

The 10th COP to the CBD meeting in Nagoya, Japan, October 2010, adopted the new Strategic Plan for Biodiversity 2011-2020 and Aichi biodiversity targets. Target 2 of the Aichi biodiversity targets states “by 2020, at the latest, biodiversity values be integrated into national and local development and poverty reduction strategies and planning processes and incorporated into national accounting, as appropriate, and reporting systems.” The same COP called upon Parties to revise and update their NBSAPs in line with the Strategic Plan and “...use the revised and updated NBSAPs as effective instruments for the integration of biodiversity targets into national development and poverty reduction policies and strategies…” In fact, Target 17 states that Parties shall develop and start implementing an updated NBSAP by 2015. ($10^{th}$ COP CBD Decision X/2).

NBSAPs are also to be used by countries as tools for stocktaking/assessment of status of biodiversity; building awareness; engaging stakeholders in the promotion of conservation and sustainable use of biodiversity; reviewing progress in policy change and implementation; and putting in place corrective policy and programmatic interventions.

But what was the experience? Clearly, the global experience is rich and diverse: "185 countries/ Parties worldwide have prepared NBSAPs, 106 have revised them at least once." (CBD Secretariat, September 2016). Included are 52 of the 55 African states, which prepared their respective NBSAPs and are also among the 141 countries, which accessed funds set aside in GEF-5 (CBD Secretariat, September 2016).

The assessment of this experience and lessons learned can be considered in two time periods: pre and post the 2011-2020 Biodiversity Strategic Plan. While the review of the post 2011 period is available in Pisupati, B. & Prip, C. (2015) Interim Assessment of Revised National Biodiversity Strategies and Action Plans (NBSAPs) and UNEP-WCMC (2016) The State of Biodiversity in Africa: A mid-term review of progress towards the Aichi Biodiversity Targets, the 1992-2010 experience depended on three more general sources: UNEP (2010) State of Biodiversity in Africa, Secretariat of the CBD (2010) Global Biodiversity Outlook 3, and Leadley, et al (2010), Biodiversity Scenarios: Projections of 21st century change in biodiversity and associated ecosystem services - A Technical Report for the Global Biodiversity Outlook 3 CBD Technical Series No. 50.

The effectiveness of the NBSAPs in halting biodiversity loss and promoting the conservation and sustainable use of biodiversity has not yet been established. But the second generation of NBSAPs has shown better strategic approaches, recognition of development objectives (Secretariat of CBD 2010, GEO 3), improved technical soundness and focus on mainstreaming and self-reliance (Pisupati, B. & Prip, C. 2015).

By 2010, 170 countries (87% of the Parties to the Convention) had developed NBSAPs and a further 14 were preparing them[22] 49 African countries had national biodiversity strategies and action plans.[23] But Africa failed to achieve by a huge margin the CBD COP's strategic plan target of reducing significantly the current rate of biodiversity loss.[24] Most African countries continued to be commodity driven, while investment and production decisions in key sectors such as agriculture and fisheries failed to reflect biodiversity conservation and use concerns. Beyond these sectors, "many

> "At a recent regional consultation for Africa, Governments reported that they had been unable to achieve the 2010 biodiversity target partly because the climate change debate had overshadowed all other environmental concerns and resources for biodiversity had been diverted to climate change issues." (UNEP, State of Biodiversity in Africa)

[22] Secretariat of CBD. 2010. Global Biodiversity Outlook 3.

[23] Secretariat of CBD, 2010. Fourth National Reports

[24] UNEP 2010, State of Biodiversity in Africa

other sectors in African countries had intended – but failed – to integrate biodiversity issues into their strategies and programmes." (UNEP State of Biodiversity in Africa, 2010). Some countries put blame on the over shadowing of environmental concerns by the climate change agenda (see box).

The NBSAPs experience can be summarized across a range of critical factors:

(a) **Mainstreaming in national plans and poverty reduction strategies**. A total of 21 Parties globally reported that "biodiversity has been integrated into their national development plan or equivalent instrument" (Secretariat of CBD, September 2016). Among them are the following African countries: Burkina Faso, Burundi, Equatorial Guinea, Malawi, Namibia, Niger, South Africa, Uganda and Tanzania. Some of the indicators cited are: placing biodiversity conservation as a national objective; setting biodiversity targets as national development plan and poverty reduction targets and biodiversity management programs accorded priority among socio-economic issues. Malawi has made the NBSAP an instrument of the national plan for realizing biodiversity related targets of the national development plan (see box).

(b) **Adoption as "whole-of-government instrument**." The level at which the NBSAP is approved, i.e., by the Head of State, Parliament or Council of Ministers, is an important indicator of the kind of political commitment the NBSAP carries. An approval by the highest political body means that the NBSAP has been accepted as a national level undertaking, which all legislative and regulatory frameworks, policy and planning endeavours at national, sectoral and subnational levels need to embrace or adapt to. At the global level, of the total 182 NBSAPs only "32 have been adopted as "whole-of-government" instruments" (Secretariat of CBD, 2016 September). According to the same source, Benin was the only African country that belonged to this category.

In a big majority of African countries, NBSAPs have been stand-alone, donor driven and sectoral/local level undertakings, where the production of NBSAP was seen as an end in itself. International development assistance has largely focused on supporting poverty reduction strategies and related programs, and sidelined biodiversity conservation (Ejigu 2006).

(c) **Monitoring, Evaluation and Learning**. Assessment of previous NBSAPs or identification of areas of success and failure is *sine qua non* for a sound planning undertaking. Few NBSAPs had mechanisms for monitoring and review ((Pisupati, B. & Prip, C. 2015). In launching their respective second NBSAPs, only nine African countries, namely: Chad, Egypt, Gambia, Madagascar, Malawi, Namibia,

Senegal, South Africa and Uganda reported achievements by previous NBSAPs (Secretariat of CBD, September 2016). These achievements fall in 3 categories: (i) increases in protected area coverage or improvements in their management; (ii) establishment of new conservation programs; and (iii) development of new policies, legislation, and/or the improvement of institutional frameworks.

As regards problems/ setbacks, the most commonly cited implementation constraints were insufficient financial resources; inadequate monitoring and evaluation frameworks and weak coordination and communication (Secretariat of CBD 2016). Among countries that reported these problems worldwide, there were fourteen African countries: Botswana, Cameroon, Egypt, Equatorial Guinea, Ethiopia, Gambia, Mozambique, Namibia, Nigeria, Senegal, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.

(d) **Participatory process / stakeholder engagement**. The effective engagement of stakeholders in the planning and implementation of NBSAPs is a critical success factor. It is also a critical factor for building national ownership of the NBSAPs. Here again, according to Secretariat of CBD (September 2016), most Parties reported the involvement of a broad spectrum of stakeholders in the NBSAP revision process; although the quality of this involvement or the implications for the implementation of the NSBAP has not been clearly reported on. The range of stakeholders involved also varies. Government ministries most commonly involved in the formulation of NBSAPs were: Agriculture, Development/Planning, Fisheries, Forestry, Tourism, Education, and Finance. NGOs/civil society, private sector and academia were also reported to have been involved (CBD Secretariat, September 2016). Yet, the interim-assessment of NBSAPs reported limited involvement of stakeholders as one of the setbacks of the revised NBSAPs… all the NBSAPs seem to have focused more on consultations with government sectors and agencies in the revision process than with other stakeholder groups (Pisupati, B. & Prip, C. 2015).

(e) **Institutional leadership and coordination**. Several countries reported establishing formal coordination structures or a working group for NBSAP-related tasks, composed of different stakeholders. In Africa, these countries are: Burundi, Cameroon, Ethiopia, Gambia, Malawi, Namibia, Senegal, South Africa, Togo, Uganda and Zambia. The mandates of these coordination structures differ among countries and many of them have been kept in the periphery, “often with limited political and cross-sectoral ownership, as well as limited ownership at the sub-national level” (Pisupati, B. & Prip, C. 2015).

**(f) Technical soundness and process.** The preparation of well informed, comprehensive and technically sound document is a critical success factor. There has been a lack of measurable targets, and often NBSAPs are lists of projects (Pisupati, B. & Prip, C. 2015, UNEP 2010, Secretariat of CBD 2010/GEO 3) rather than outcome of strategic thought and analysis of threats and opportunities in the biodiversity and related sectors. Many were overly ambitious and prescriptive; and often appeared to have been addressed at external funding agencies rather than national decision makers (Pisupati, B. & Prip, C. 2015, UNEP 2010, Secretariat of CBD 2010/GEO 3). Many NBSAPs focused on a narrowly defined biodiversity sector and "few explicitly incorporated measures to implement other biodiversity-related conventions than the CBD (Pisupati, B. & Prip, C. 2015, UNEP 2010, Secretariat of CBD 2010/GEO 3). Within the biodiversity sector, while conservation' received the most attention followed by 'sustainable use.' equitable sharing of benefits arising out of the utilization of genetic resources' received the least amount of attention (Pisupati, B. & Prip, C. 2015, UNEP 2010, Secretariat of CBD 2010/GEO 3).

(g) **Resource mobilization**: An important component of NBSAPs is a resource mobilization strategy. In decision XI/14 paragraph 25, the Conference of the Parties encouraged Parties to "develop, as appropriate, country-specific resource mobilization strategies, including assessment of resource needs." Many NBSAPs lacked a strategy for financing implementation ((Pisupati, B. & Prip, C. 2015). Only a total of 37 revised NBSAPs out of the total 98 NBSAPs submitted to the CBD Secretariat (between the adoption of the Strategic Plan for Biodiversity 2011-2020 and 18 July 2016) included a costing for their action plans, but only 8 had a resource mobilization strategy." (Secretariat of CBD, September 2016). Some examples of innovative financing sources cited include: national environment funds, tourism revenues, fishing and forestry industry revenues, green funds, green tax, removing perverse incentives and engaging the private sector. There is, however, no indication of how much of the financial requirements have been covered from these sources.

(h) **Communication, education and public awareness (CEPA)**. Both the CBD and the Strategic Plan have placed emphasis on the need for a CEPA plan as integral part of NBSAPs. But few NBSAPs had strategies for communication and education ((Pisupati, B. & Prip, C. 2015). Those which had strategies failed to address wide ranging issues spanning CEPA. In fact, some Governments attributed their failure to achieve biodiversity target to shortcomings in communication and outreach (UNEP State of Biodiversity in Africa, 2010). The scientific community had been unable to communicate its concerns effectively to policymakers and decision

makers, nor was any time when decision makers sought advice from the scientific community to be able to sufficiently prioritize biodiversity issues within a political and development agenda preoccupied with economic growth and expanding urban employment opportunities. Among the reported initiatives in the education area were: continuing teachers' education on biodiversity, inclusion of biodiversity in university curricula and creation of biodiversity knowledge network.

(i) **Capacity development**. Almost all NBSAPs contain a national capacity development plan, but with varying details and specificity. Some of the actions mentioned were: building human, institutional and policy/legislative capacity; strengthening capacities of relevant ministries and associated agencies; promoting environmentally and socially responsible investment practices; and building CSOs capacity.

(j) **Sub-national BSAPs**. Critical decisions that impact biodiversity are made at the local people. In particular, land use planning and practices have major impacts on the conservation and sustainable use of biodiversity. Here again, there were very few reported experiences of subnational level planning of NBSAPs.

Undoubtedly, the large number of NBSAPs formulated (both in Africa and elsewhere in the world), the broad biodiversity knowledge and capacities built, stakeholder participatory processes put in place and innovative financing mechanisms sought are important achievements. Nevertheless, there are, at best, very few countries that reported success stories in integrating biodiversity concerns in national planning processes and impacting drivers of biodiversity loss; removing threats to biodiversity or expanding conservation areas.

As the September 2016 report of the CBD Secretariat noted, only few countries reported success in integrating biodiversity in national planning and in using NBSAPs as "whole-of-government instrument." A big majority of NBSAPs have, therefore, remained technical exercises rather than political economy processes; timid and weak to influence macroeconomic and sectoral policy in favor of biodiversity" (Pisupati, B. & Prip, C. 2015). The tools and guidelines to be developed will help to integrate biodiversity at all levels of decision making (macro, micro, sectoral and local) that impact the conservation and sustainable use of biodiversity as well as the equitable sharing of benefits derived from that use.

## Tools and Guidelines for Integrating Biodiversity in National Planning Processes: Building on What Exists

Lessons (successes and failures) learned over the past quarter century serve as building blocks for the development of tools and guidelines to integrate biodiversity in national planning and decision making processes. Below are critical steps and processes in the development of tools and guidelines.

### Core processes: laying the infrastructure for integration

Step I. **Ensure that the policy and legal framework for integration is there.** While all signatory countries of the CBD have the legal obligation to implement provisions of the Convention, it is important that each country crafts its own biodiversity policy covering the conservation of species, ecosystems and genes, sustainable use and sharing of benefits derived therefrom. Some of the national legal frameworks could focus on a particular ecosystem, e.g., the Uganda National Wet Lands Policy. In many countries, the NBSAP is a national policy in its own right, although needs to carry the full commitment of the political establishment. Other critical legislations are those related to: biosafety, GMOs, access to benefit-sharing (ABS), management of protected areas and national parks, land policy and land use planning; policies and guidelines related to Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) as well as enforcement mechanisms for these policies.

Step II. **Designate a lead government agency**. It is important to recognize that the integration of biodiversity in national planning and decision making processes is a multi-sectoral and multi-level undertaking that requires leadership and coordination by a government institution mandated to do so. Examples are: the Office of the Prime Minister, Ministry of Finance, Planning and Development.

Step III. **Develop fully nationally owned and internally driven integration strategy**. Effective integration of biodiversity requires a well worked out strategy and plan of action that defines objectives, expected outputs, entry points, priorities, respective roles and responsibilities of institutions, stakeholder engagement and monitoring and follow-up mechanisms. While this strategy will be developed under the leadership of either the Minister of Finance or Planning and Development or Office of the Prime Minister, broad based stakeholder engagement and national ownership of the strategy is critical.

Step IV. **Recognize NBSAPs and NDPs as the primary tools for integration with focus on building synergies among tools and instruments.** In any country setting, the national development planning and budgeting is the overarching tool for guiding and managing the economic, social and environmental wellbeing of a country. The NBSAP remains the primary tool for the realization of biodiversity targets as well as for integrating biodiversity in national plans and decision making processes. But the NBSAP need to be an instrument of the national planning process; while short, medium term and long term planning needs to be an instrument for realizing biodiversity targets and policy measures set forth by the NBSAP. Equally important is building synergies between national plans/budgets, NBSAPs and national strategies to combat climate change, desertification and all biodiversity related sectoral strategies.

The NBSAP remains the primary tool for the realization of biodiversity targets as well as for integrating biodiversity in national plans and decision making processes.

Step V. **Pursue a holistic approach to integration**. Biodiversity needs to be integrated at all stages of the planning cycle covering all aspects of biodiversity concerns: threats, responses, effects, impacts and mitigation measures being taken.

**Integrating Biodiversity at Each Stage of the Planning Cycle**

1. **Data generation, analysis and communication**

The first cycle in the national planning process is building a sound knowledge base for planning informed by science and traditional knowledge. The notion of “knowledge” encompasses scientific and traditional knowledge both qualitative and quantitative that help understand how policies, institutions, legislations, human activities and community groupings impact biodiversity either positively or negatively. “Knowledge” would also include documenting ecosystem services and functions provided by biodiversity and identifying opportunities for biodiversity conservation and sustainable use.

Because planning involves in most cases, setting quantitative targets, data generation, analysis and collation is given big importance. But planning, these days, is embracing qualitative targets of processes that directly and indirectly (positively or negatively) impact biodiversity.

1. **Identify key indicators.** The first task in data generation is identifying most critical biodiversity indicators that would be part of the set of the indicators for national planning. In this regards, it worth recalling the work of the Ad Hoc Technical Expert Group (AHTEG) on Indicators for the Strategic Plan for Biodiversity 2011-2020 that encouraged countries with limited resources to start with a few simple indicators for priority issues identified in their respective NBSAPs, including the Aichi Biodiversity

Targets and build support for them. Here, it is vitally important to trust National/Central Statistical Bureaus with the task of collecting and coordinating biodiversity related data.

In almost all countries, national statistical bureaus have long track record, the legal mandate, institutional credibility and the policy influence that no other government agency for statistical data. Although national statistical bureaus in many African countries struggle with financial and capacity constraints, it would be good value for money to invest in them rather than creating new institutions.

The AHTEG has also suggested a list of indicators that can be used to measure progress at various levels on implementation of actions to achieve CBD Strategic Plan and the Aichi Targets. These indicators are useful starting points, which each country can build upon and expand by relating them to economic, social and cultural conditions prevailing in each country, including local/traditional knowledge.

2. **Comprehensive but prioritized indicators:** The set of indicators needs to cover the whole gamut of issues ranging from sources of threats to biodiversity, magnitude of these threats, responses of biodiversity users to these threats (pressure factors), impacts, effects as well as mitigating measures taken. Indicators should also capture changes, for example, in threats to biodiversity relative to, say GDP or investment growth rates. There is, however, a need to prioritize these indicators based on magnitude and seriousness of concerns as well as availability of data. Indicators have the potential to be motivational and transformative forces for integrating biodiversity in planning processes at all stages of the planning cycle.

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3. **Generating data**: Data availability and reliability continue to be a problem in many countries; but data deficiency should not hold back any planning work. While filling the data gap both in quality and coverage is bound to take a long time, Data comes from both biodiversity and development sources, and includes two key sources:
   - Traditional data sources:
     - NBSAPs and related studies
     - state of environment reports,
     - poverty status reports,
     - National or sectoral development plans, studies and reports, e.g., agriculture, fisheries, forest, land use, etc.

- national statistics office, which may have data on the contribution of different sectors to GDP, employment and foreign exchange earnings and also household surveys
- National census and demographics
- Participatory poverty assessments, which are often carried out to inform the development of Poverty Reduction Strategy Papers (PRSPs) and national development plans.
- Strategic and environmental impact assessments
- National reports prepared to fulfil MEAs requirements, e.g., UNFCC, UNCDC, etc.
- Individual studies and academic research reports of various stakeholders, research centres, academics, government agencies, private sector, civil society and local communities.
- Biodiversity related programme and project performance evaluation reports, including development assistance reports

- Non-traditional (new sources)
  - Biodiversity valuation
  - Natural capital accounts
  - The Economics of Ecosystems and Biodiversity (TEEB),
  - Wealth Accounting and the Valuation of Ecosystems (WAVES)

- Global assessments and reports:
  - Millennium Ecosystem Assessment
  - UNEP biodiversity studies and reports
  - FAO studies and reports
  - IUCN and other conservation organizations' reports on threatened species and ecosystems

4. **Data analysis and communication.** Once data is generated and verified, it must be analyzed and collated in a user friendly manner. These indicators can be communicated in the form of tabular data, graphics, text, and maps. What is really important is making sure they measure performance and progress relative to biodiversity loss/gains, e.g., economic growth and investment rates over time in relation to biodiversity loss/gains (Ejigu 2012). Numeric indicators often provide the most useful and understandable information to decision makers. In Africa and other developing countries generally, where there is a paucity of data, qualitative information is necessary to supplement quantitative indicators, and better understand the condition of a sector or community. Biodiversity poses serious challenges because not every aspect of the contribution of biodiversity to development and

human wellbeing or ecosystem services and functions can be measured. The quality of biodiversity data, thus, may not be as robust as the data obtained in other sectors, e.g., crop production, trade, etc. Here, lesser quality should not lead to discarding the data, but be seen as an opportunity to identify biodiversity data gaps and recommend ways to fill these gaps.

## 2. **Integrating biodiversity concerns in Plan Formulation**

### 2.1. **Integrating biodiversity in Plan/Budget Call**

As presented earlier, the plan formulation stage has two important processes that are critical to integration:

- Plan/budget call and
- Plan preparation by sector ministries, government agencies/institutions and local administrations in response to the call.

The Plan/budget Call is prepared by the Ministry of Finance and/or Development Planning to provide a framework or guidance on the overall objectives and key priorities of the Plan to be prepared. In a word, it sets the government's development agenda and requests sector ministries and agencies to submit their respective proposals within the framework.

The Plan/Budget Call also sets out the size of public expenditure, how it will be allocated broadly and also how it will be financed, including how revenues will be collected from taxes and levies. Biodiversity concerns need to be reflected in national development priorities and also in how revenue is collected and how it is expended.

This is easier said than done because economic decisions are driven by market forces. While biodiversity has huge economic, social, cultural and ecological values, these values are not monetized preventing biodiversity entering the market. It is also difficult to attach any kind of monetary value to some biodiversity values because of their intrinsic nature that makes them priceless. This left economic /market forces to drive the huge biodiversity loss, some species to extinction, with a wrong perception that biodiversity has less economic value than the economic activities giving rise to its loss.

Tax incentives and disincentives influence to a considerable extent whether biodiversity users develop biodiversity conservation or degrading behavior. It is thus important to ensure that any incentives that may lead to biodiversity loss are eliminated, while incentives that promote conservation and sustainable use are strengthened. Since many governments are operating under conditions of tight budget, it is important to build strong economic and revenue case for biodiversity.

It is at the Plan/Budget Call stage that biodiversity concerns need to be incorporated in national development objectives and priorities. Here, most plans may state sustainable development or at best environmental sustainability as a national objective. But sustainable development is a broad term and may not guarantee that biodiversity concerns will be integrated into all aspects of the planning decision making process.

Here, the strategic goals and the Aichi biodiversity targets) can offer ideas (see box). For example, addressing underlying causes of biodiversity loss combined with the goals of improving status of biodiversity and enhancing the benefits to all can stand as a national development goal.

Once stated as a national objective, detail technical work needs to be done to illustrate its significance at the national level and how economic growth and social development sectors can benefit from biodiversity, i.e., reduction of habitat loss, conservation and sustainable use. Crucial is the work at the investment programme and project stage, where it will be important to ensure that biodiversity is featured at all levels.

STRATEGIC GOALS AND THE AICHI BIODIVERSITY TARGETS

**Strategic goal A**. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

**Strategic goal B**. Reduce the direct pressures on biodiversity and promote sustainable use

**Strategic goal C**: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

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

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

It is also at this stage that the NBSAP will be recognized as an instrument for implementing national development planning (see box on Malawi's experience); while the national development plan will present itself as a means for implementing the country's global commitments to MEAs, hence NBSAPs. Depending upon a country's biodiversity issues and opportunities, the Plan Call would also identify policies, strategies and practices that need to change to support biodiversity. Guidance can be given to specific sectors, e.g., agriculture, forestry, livestock, fisheries, mining, etc. and local governments.

The NBSAP of Malawi was "prepared in response to the Malawi Growth and Development Strategy II (MGDS II 2011-2016), which prioritizes biodiversity management programs among other socio-economic and environmental issues." (CBD Secretariat, September 2016)

The preparation of the Plan Framework Document /Plan Call requires expertise and experience, which many ministries of finance and planning possess. In cases, where there is capacity constraint within the ministry of finance, ad hoc expert committees and working groups can be set up to fill gaps (see box on Botswana's experience).

Integrating biodiversity in Botswana's NDP revision and Vision 2041. In preparing Botswana's latest national development plan (NDP 11), "The Ministry of Finance set out a framework, identifying priority areas. It put in place thematic working groups (TWGs) to develop the content, including one on sustainable environment.. Vision 2041 sets out a series of outcome indicators, including several for environmental sustainability, which includes biodiversity, providing an opportunity for indicators in the NBSAP to inform Vision 2041. (IIED, 2015)

It worth noting that the Plan Framework Document will be based, first and foremost, on policies that the government attaches priority importance; as any planning document is an instrument of the state; and a means for realizing aspiration of the political party in power.

While the political authority that the Ministry of Finance and/or Planning exercise is crucial, it is crucial to build an economic case for biodiversity at all stages of decision making. The tangible economic benefits that accrue from reducing habitat loss and biodiversity conservation need to be fully recognized and internalized, including the social, cultural and ecological values (ecosystem services and functions). Decision makers need also be provided with estimates of the benefits provided by ecosystem services and functions to human wellbeing and the economy through ecosystem services accounting, where such possibility exists. Direct economic benefits that come from such sectors like: ecotourism, trade in biodiversity-based products and services; opportunities in agriculture including improved genetic diversity for agriculture, green investment and green jobs need to be clearly stated (see box on the Namibian experience).

Building a convincing case for biodiversity – The Namibian experience (IIED, 2015)

"Namibia has been able to link biodiversity conservation to key national policy goals by using strong, relevant and well presented evidence. ..The tourism industry, of which national parks are considered the bedrock, is recognised as the fastest growing sector of the Namibian economy."

**The plan time frame**. The difference between Plan Call and Budget Call. In the discussion above, Plan Call and Budget Call were used interchangeably, but this is true only in the case of annual plan and annual budget. The budget, whether it is the development or recurrent expenditure budget is prepared annually and accompanies the annual development plan. The annual budget and annual development plan are key instruments for operationalizing the medium term (5 year plan).

In cases of medium and long term plans, what is equivalent to the Plan / Budget Call is the Plan Framework document. At any rate, biodiversity concerns need to be integrated in short, medium and long term plans and at all stages of the development planning cycle.

Biodiversity concerns need to be integrated in short, medium and long term plans and at all stages of the development planning cycle.

**Enhancing the resilience of integration**. It is important to frame the integration in a manner that reduces the risk of it being 'buried' because of political opposition or when a new political party assumes power.

### 2.2 Integrating biodiversity in sectoral/ subnational plans

Based on the Plan Framework Document /Plan Call/, each sector ministry and government agency formulates its respective plan. The plan formulated usually contains four broad sections:

- sectoral assessment, current situation and development constraints
- objectives / goals and priorities for the plan period
- investment budget requested to achieve goals set accompanied by justification and a list of project proposals
- implementation capacity, gaps and priority areas of capacity development

In sectors like agriculture, forest, livestock and fisheries, biodiversity concerns need to be integrated at all stages of the sectoral plan process four core principles: reducing biodiversity loss; conservation of species, ecosystems and genes; sustainable use of biodiversity where such possibilities exist and the sharing of benefits derived therefrom across societal groups and generations. In sectors, like mining, energy, industry and transport, the primary focus will be reduction of biodiversity/habitat loss; including reduction of threats (both potential and actual) on national parks and protected areas through developing safeguard measures as well as through adoption of less biodiversity depleting production and distribution processes.

An essential component of the sectoral plan formulation is developing programmes and projects to achieve sectoral goals and objectives set. These programmes and projects are explained and justified in the light of parameters provided by the Plan / Budget Call to gain approval by the Ministry of Planning or Finance. Biodiversity concerns, thus, need to be integrated in each programme or project proposal submitted to the Ministry of Finance/ Planning in order for the project to be approved for budgetary support.

2.3 **Integrating biodiversity in plan elaboration**

This is the stage where the Ministry of Finance/ Planning analyzes rigorously sectoral plans and accompanying programme and project proposals submitted to it with the view to writing a sound and realistic plan, where requested resources from sector ministries and governmental agencies are matched with available (actual and to be mobilized during the plan period) resources.

As used here, plan elaboration encompasses:

(i) **Technical analysis** of the proposed plan by sectoral ministries/ government agencies with the view to ensuring:

- Consistency with national goals and priorities; i.e., that sectoral plans are consistent with the goals and priorities indicated in the Plan/Budget Call and that biodiversity concerns are reflected to the fullest extent possible.

- Technical soundness, i.e. that resources allocated for biodiversity activities are fully justified; proposed targets are based on accurate information and that targets set are realistic and achievable;

- Economic and financial feasibility, i.e., that project benefits are higher than costs and that economic and financial rates of return are at acceptable levels (normally not less than 10 percent). This is often hard to establish in the case of biodiversity projects because benefits of biodiversity cannot be quantified. This means that planning/ finance experts need to move out of their comfort zone and use qualitative information to justify budgetary support to biodiversity projects. While the existence of political commitment is crucial, there must be a convincing economic case to enable the retention of biodiversity projects through the grueling approval process.

- Socio-ecological sustainability; i.e., that sectoral plans and programmes contribute to improving the social and ecological wellbeing of society for the plan period and beyond.

It is only when the above are met that the necessary budgetary support will be approved.

(ii) **Plan / budget hearing**. Following the analytical work done by experts of the Planning/Finance ministry, representatives of sector ministries will be invited to defend what they submitted; and specifically answer questions that emerged from the analytical work.

(iii) **Finalizing the national plan and submitting it the highest political establishment for approval.** Based on the hearing of sectoral arguments and any additional

information provided, the plan will be finalized and submitted, normally first to the Ministerial Cabinet and then Parliament for final approval.

Plan elaboration is indeed a critical decision making process where all plans and proposals are evaluated for approval based on established criteria, but often influenced by the judgement of planning experts. It is thus important to make sure that biodiversity issues are reflected in sectoral goals and priorities with a convincing case for their inclusion and well defended during the plan/budget hearing.

Often toward the end of the plan elaboration phase, when every powerful minister insists on budgetary support for his/her projects at the backdrop of tight budgetary situations, the risk of biodiversity projects sidelined, on grounds that the benefits are of long term nature, etc., is high. It is at this stage that all political support needs to be fully mobilized.

## 3. **Integrating biodiversity in plan implementation**

Technically, plan implementation starts at the early stages of plan formulation, in particular with the setting of targets. Each target setting needs to consider which institution will be responsible, resources and capacities (human, institutional and regulatory) required to achieve it; and what mechanism will be placed to monitor and evaluate implementation. Effective implementation would also require sustained political commitment, national ownership of the plan and engagement of all stakeholders at all stages of the planning, starting from data generation.

Biodiversity issues, wide ranging as they are, involve several organizations and institutions. It is, thus, vital to clarify the respective roles and responsibilities of implementing institutions. Institutions operate on the basis of legally defined mandates, which may not permit the implementation of such cross cutting issues like biodiversity. It is thus important to fill legislative gaps and clearly define the individual, group and collective responsibilities of organizations in the integration/ planning process.

Beyond ensuring the availability of capacities, resources and clearly defined institutional responsibilities, effective implementation will also require action plans. The action plan is often one year duration and should detail biodiversity related activities to be performed, expected outputs and delivery dates; but as integral part of the national plan. Here, the action plan can be reinforced by the NBSAP, which will make sure that biodiversity issues are not buried in the overall national development action plan.

To enable implementation of biodiversity related targets, it requires developing new and/or improving existing policies, legislations and regulatory frameworks, e.g., economic

and financial incentives, investment policies, land use, mining, roads, human settlement, trade, education, etc. Those institutions responsible for biodiversity (directly or indirectly) should thus be mandated to look into implications of integrating biodiversity concerns in national plans and decision making processes and propose measures.

Robust public communication is a vital tool for implementing the plan through awareness raising, enhancing ownership, promoting stakeholders' involvement and rallying the support of various sections of society. It is also a tool for influencing biodiversity skeptics on the benefits of biodiversity conservation and sustainable use, in general, and integration of biodiversity in planning and decision making processes. National and local media play vital roles in the keeping stakeholders informed of progress made in realizing the integration of biodiversity in development and the role of citizens individually and collectively.

## 4. **Integrating biodiversity in M&E processes**

Monitoring, assessment, evaluation and learning play a central role as part of the cyclical process of continuous effort towards full and durable integration of biodiversity concerns in planning and the attainment of the Aichi Biodiversity targets. The review of the African development planning and NBSAP experience suggests that most plans have put little emphasis on monitoring and evaluation (M&E); and lacked the political commitment, institutional mechanism and capacity to use M&E as an effective planning, hence integrative tool.

The M&E process needs to focus on assessing the degree of target fulfilment; but needs to involve monitoring and evaluation of processes, outcomes and impacts in a holistic manner to enable effective action and learning. Process (systems based) evaluation measures the implementation of activities and how effectively this is done. M&E of outcomes involves measuring the effect of the activities that have been undertaken, mainly the more immediate, tangible or observable changes. Impact assessment aims to ascertain the more long term and widespread consequences of the intervention.

The relative mix of process assessment and outcome/impact assessment depends on the kind of targets set, which is influenced by availability of data. Currently, because of paucity of quantitative data on biodiversity issues, there could be more process targets, which would make process assessment useful. Over time, with the expansion and refinement of the work on biodiversity valuation, there could more quantitative data to demonstrate differences made on the ground on the socio-economic and ecological fronts. Stakeholders fatigue for process related measurements can also set in, thus, calling for more outcome/impact M&E.

Effective M&E for biodiversity integration in planning and decision making processes needs to be participatory, practical, relevant and reflective. A participatory approach helps to bring various biodiversity stakeholders (staff, funders, clients, partners, etc.) in designing and conducting the evaluation to ensure that the needs, ideas and concerns of all players are included in the process. The M& E system needs to be practical, relevant and provide useful information to management and decision makers at all levels. The learning aspect is also important to enable managers and institutions at large learn from failures as well as from successes; as well as develop an M&E culture where M&E is institutionalized and seen as a beneficial tool rather than as a fault finding mechanism.

**Integrating biodiversity in decision-making tools, programmes and projects**

All decision making tools, programmes and projects feed into and constitute the national plan document. Integration of biodiversity at all stages of the planning cycle requires the use of such tools like: biodiversity valuation, natural resource accounting and reform of the system of national accounts to capture changes in biodiversity; economic, financial and investment incentives and disincentives; land use planning and environmental assessment. The following sections discuss the importance and substance of each tool in the decision making process.

1. **Biodiversity valuation**

Biodiversity valuation is the systematic capturing of the wide ranging benefits of biodiversity in monetary and non-monetary terms to better analyze the economic, sociocultural and ecological impacts of biodiversity conservation and loss on different groups and sectors.

Valuation is a key tool, indeed the pillar, for integrating biodiversity concerns in planning and decision making process. For centuries, the absence of apparent value combined with absent or deficient property rights led to decisions that resulted in over exploitation, abuse and misuse of natural resources, biodiversity in particular. Valuation would, thus, help to understand the direct and indirect values of biodiversity and influence decision making process in favor of conservation and sustainable use.

> The absence of apparent value combined with deficient property rights paved the ground for over exploitation, abuse and misuse of biodiversity. Planners and decision makers can use the valuation to correct market failures, design conservation programs that benefit current and future generations and to put in place a robust natural resource accounting system (reformed GDP) that reflects changes in biodiversity.

Biodiversity valuation is, however, an extremely challenging task that involves measuring and valuing the abundance and variability of:

- Species – i.e., determining species richness (the number of species within a region or given area) and the population distribution and relatedness;
- Genes – measuring genetic differences in terms of phenotypic traits, allelic frequencies or DNA sequences (Pearce and Moran 1994); and
- Ecosystems – measuring variety of habitats, biotic communities and ecological processes in the biosphere; diversity within ecosystems (functional, community and landscape).

The challenge is compounded by the difficulty of capturing the cultural, spiritual and aesthetic values of biodiversity; making it virtually impossible to express biodiversity values in monetary terms.

Further, the measurement and valuation of biodiversity is a costly undertaking. It is, thus, important to be pragmatic, define clearly the purpose of the valuation and start from something small that decision makers can easily understand and act upon.

In the pursuit of a pragmatic approach, the starting point should be an understanding of the full range of values associated with direct and potential use and also non-monetary values that people attach to mere existence of biodiversity, especially in the case of forest biodiversity. To some communities, biodiversity is priceless and thus wrong to express the values of biodiversity in monetary terms – a stance that made some to equate no-monetary value with free resource that can be exploited left and right.

Biodiversity is seen as low priority because it is difficult to attach monetary value to its benefits as well as monitor and evaluate it. As a result biodiversity has been left on the periphery and at risk of overexploitation. Costing is important as such costs represent the alternative use of funds and help decision makers to make well informed policy choices that ultimately reduce abuse of natural resources and enhance conservation.

The CBD process recognizes the multiple benefits of biodiversity, which can be categorized in four broad areas:

- Economic values – (i) source of livelihoods, i.e., food and feed (as primary and secondary sources), energy, construction and furniture; (ii) Medicinal values (traditional as well as raw material for pharmaceutical industries);
- Social, cultural and spiritual values
- Ecological values: (i) ecosystem services and functions, hydrological processes, carbon sequestration); (ii) procreation values (provide refuge pollinator species);
- Educational and research values

"Unaccounted values of biodiversity and ecosystem services are greater than combined gross domestic products globally." CBD Secretariat, UNEP/CBD/COP/11/INF/16 2012

Biodiversity valuation is at rudimentary stages, globally more so in Africa. As of September 2016, a total of 25 Parties reported conducting biodiversity valuation studies in- country; five were in Africa: Botswana, Ethiopia, Seychelles, Uganda and Zimbabwe (CBD Secretariat, September 2016). Further, the depth and breadth of these studies and the extent to which these studies have influenced decision making on integrating biodiversity in national planning, priority setting and/or shaping successor NBSAPs is not yet known (CBD Secretariat, September 2016). According to the same source, only two African countries, Mozambique and the United Republic of Tanzania have indicated, in their respective NBSAPs, actions to develop tools, methods or methodologies for the valuation of biodiversity and ecosystem services.

Valuation of biodiversity and ecosystem services should be both monetary and non-monetary; at the same time take cognizance of prevailing economic and social conditions on the ground. Adding to the complexity is the broad range of stakeholders (public sector, CSOs, academic and research institutions, conservationists, park and wildlife managers, farming households, communities, private sector, etc.) that need to be consulted in one form or another.

Valuation of biodiversity and ecosystem services should be both monetary and non-monetary.

As indicated earlier, valuation is an expensive undertaking. Its prupose and expected outputs/outcomes as well as its policy relevance need to be clearly defined prior to launching the valuation study. The objectives of valuation vary by country or locality and could include:

- Raising awareness on the importance of biodiversity at the community and government levels,
- Influence land planning and land use decisions,
- Reduce threats to biodiversity, including to national parks and protected areas;
- Formulate conservation strategies and set priorities,
- Determining impacts of biodiversity losses and develop programmes and projects to reverse losses,
- Limiting or banning trade in endangered species,
- Develop natural resource / green accounts and reform national income accounts into one that captures changes in biodiversity,
- Influence investment decisions, budgetary allocations and also fiscal and monetary incentives to minimize biodiversity losses and/or enhance conservation activities.

Valuation is an expensive undertaking. Its prupose and expected outputs/outcomes as well as its policy relevance need to be clearly defined prior to launching the valuation study

Yet, according to the CBD Secretariat September 2016 report, Egypt launched a valuation study of the Wadi El Ryan and Ras Mohamed protected areas; while Zimbabwe had a valuation study on protected areas as part of the NBSAP preparation.

Although the primary purposes of the valuation studies in Egypt and Zimbabwe are not indicated, one wonders why the valuation study focused on protected areas unless the protected area is serious threathened by investment policies. Under current African conditions, where biodiversity loss has been massive, existing national parks and protected areas should be seen as priceless and sacred. The purpose of valuation should thus be to strengthen conservation by gazeting new areas as protected areas and national parks; and not to worsen habitat and biodiversity loss through opening protected area for investment. A biodiversity valuation study that focuses on existing protected areas and national parks is misguided.

Existing protected areas and national parks are priceless. The purpose of valuation should be to strengthen conservation by gazeting new areas as protected areas and national parks; and not to worsen habitat and biodiversity loss through opening protected area for investment. A biodiversity valuation study that focuses on existing protected areas and national parks is misguided.

## 2. Natural resource and national income accounting

Natural resource accounting - the monetary accounting of stocks and stock changes of natural assets- and national income accounting (estimate of the gross domestic product (GDP) are vital tools for integrating biodiversity in national planning and decision making processes. Most familiar and used globally, GDP - a measure of aggregate goods and services of an economy- is a tool to monitor growth, set plan targets and make policy decisions.

GDP is estimated through the system of national accounts (SNA), which was developed by the United Nations in 1947 to provide a standardized global measurement of total goods and services produced by an economy. It is, however, based on Keynesian macroeconomic model that made an implicit and wrong assumption that natural resources are so abundant in colonies that they have no marginal value. GDP has failed to take into account the social, cultural and ecological services provided by nature and ecosystem opportunities foregone, such as the prospective value of species, or wilderness to future generations. Current environmental problems faced, such as habitat and biodiversity loss, pollution, climate change risks are often attributed to the reliance on GDP for economic decision making.

Since the Rio Earth Summit of 1992, however, the United Nations Statistical Office made notable efforts to reflect environmental concerns into the System of National Accounts (SNA) and has approved System of Environmental-Economic Accounts (SEEA) that provides an initial international standard accounts of environmental assets and the costs of their depletion and degradation, environmental costs, and externality costs. Outside

the UN system, concepts like “natural capital accounting,” ecosystem services approach (ESA) and/or natural capital approach (NCA) have also been developed as a means for identifying and quantifying natural resources and associated ecosystem goods and services to help integrate ecosystem-oriented management with economic decision-making and development.

While the importance of incorporating the physical and monetary value changes of natural assets into economic and investment decision making processes is getting traction, SEEA and related approaches remain complicated and beyond the reach of many African countries.

Efforts made to integrate biodiversity in planning processes offer opportunities to build capacities for natural resource accounting (NRA) and reform GDP. A key goal of Agenda 2063 is “to reform national income accounts to fully reflect changes in renewable and non-renewable natural resources wealth” while DREA’s 2014-2017 Strategic Plan goals “develop a continental framework on natural resource accounting and strengthen capacity of national planners to integrate natural resources accounting (NRA) in national planning processes

Further, there is need to build upon such initiatives like the Gaborone Declaration for Sustainability in Africa[25] of May 25, 2012, signed by Botswana, Gabon, Ghana, Kenya, Liberia, Mozambique, Namibia, Rwanda, South Africa and Tanzania that recognized the ‘limitations’ of gross domestic product as a measure of well-being and sustainable growth” and called on governments, accounting bodies and the United Nations to develop systems to value environmental and social aspects of economic progress.

The World Bank led global partnership - **Wealth Accounting and the Valuation of Ecosystem Services (WAVES)** is also useful tool for integrating biodiversity concerns in national planning and decision making processes. WAVES brings together UN agencies, governments, non-governmental organizations, academic and research institutions to implement reform of the national accounting system (GDP), including natural capital accounting (NCA) and ecosystem service accounts (ESA) where there are internationally agreed standards and methodology.

At the country level, WAVES seeks to help build capacities through developing approaches to ecosystem accounting; enhancing training and knowledge sharing and promoting natural capital accounting. Because of its close working relation with central banks and ministries of planning and finance, the World Bank through WAVES can be instrumental in integrating biodiversity in national planning processes, and more importantly in facilitating the adoption and development of natural resource accounting.

[25] See, http://www.gaboronedeclaration.com/

While the existence of political commitment is always important, what is equally important is building the technical capacity for NRA / green accounting and SEEA starting from data generation (which can be derived from biodiversity valuation); analysis and estimation of gross value of production and value added (GDP).

### 3. Economic and financial incentives

Incentive measures are used by governments and usually take the form of a new policy, law or economic or social programme, and include subsidies, tax breaks (tax holidays and lower tax rates) as well as access to bank loans at discounted lending rates. While some incentive measures are designed to encourage production and investment in certain sectors or regions, others are used to discourage consumption, for example, fossil fuels, cigarettes, etc.

In many African countries, incentive structures developed to encourage investment in agricultural, industrial and bioenergy (biofuels) have inadvertently played havoc to biodiversity directly through increased habitat loss/deforestation and indirectly through forcing population displacement and new settlements in biodiversity rich areas. However, incentive structures, when carefully designed and integrate biodiversity concerns, not only help meet both development and conservation objectives but also bring the attainment of sustainable development within reach.

Economic and financial incentives should aim to influence people's behavior by making it more desirable for them to conserve rather than degrade biodiversity while enjoying long term and sustained high economic and financial returns.

### 4. Land policy and land use planning

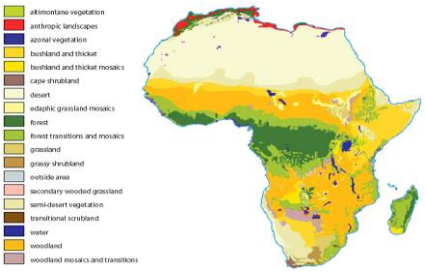
Land use in Africa is changing in a dramatic way due to population growth, continued heavy reliance on extractive industries for exports and large number of refugees and displaced people arising from conflict and drought. The recent large scale (foreign) investment in food and energy crops codenamed the huge land grab and second scramble for Africa's land has multiplied threats to biodiversity including pushing out small cultivators to marginal areas.

Not long ago, a World Bank publication showed the following land area acquired for biofuels:

Land acquired for biofuels production in selected African countries

| Country | Projects | Area ('000) hectare | Median size (hectare) | Domestic share |
|---|---|---|---|---|
| Ethiopia | 406 | 1,190 | 700 | 49 |
| Liberia | 17 | 1,602 | 59,324 | 7 |
| Mozambique | 405 | 2,670 | 2,225 | 53 |
| Nigeria | 115 | 793 | 1,500 | 97 |
| Sudan | 132 | 3,965 | 7,980 | 78 |

Source: Deininger, Klaus and Byerlee, Derek with Jonathan Lindsay, Andrew Norton, Harris Selod, and Mercedes Stickler, World Bank 2011




As the above Table shows, Sudan has given out the largest land area of close to four million hectares; a country that experienced heavy biodiversity and habitat loss over the past decades. On Ethiopia (Dessalegn 2011) reports that the country has placed "3,589,678 hectares for lease under the Federal Land Bank in five regions of the country; land being leased out at "ridiculously" low rent that ranges between 14.1 birr (less than one US dollar) and 135 birr (about USD 8) per hectare" (Dessalegn 2011).

Beyond investment in biofuels, the recent scramble for Africa's soil involves acquiring land for timber, food exports, minerals and oil, often without seriously considering the social and biodiversity implications. Nor is there any biodiversity sciences based clarification offered for the notion of "marginal" lands that senior government officials argue that the land given out for biofuels belongs too. Thus, while there is agreement that land has to be used in a variety of ways, i.e., for agriculture, construction, herding livestock, mineral development, etc., there must be robust land use planning that integrates biodiversity concerns at all levels.

The Framework and Guidelines on Land Policy in Africa (AU, UNECA and ADfB 2010) as well as the Framework and Guidelines for Large Scale investment in Africa, while calling for sustainable land management, fail to integrate, even at a small scale, biodiversity concerns.

As the general land use map below illustrates, Africa's forest cover is very small. Central Africa, where one of the world's richest areas of diversity and ecosystems exists, has only 29.3-percent forest coverage. Although countries such as Liberia, Sierra Leone, and Cote D'Ivoire have large tropical forest areas, deforestation and biodiversity loss has been massive particularly in Liberia during the conflict period. Today, West Africa's forest cover is mere 2.1 percent, when countries like Mali and Niger with large geographic area that form part of the Sahara desert are considered.

The integration of biodiversity in land policy, tenure arrangements and land use plans helps users of land to develop biodiversity conserving behavior, promotes the sustainable management of common areas instead of partitioning them to individual users and strengthens rules governing uses and transfer of common resources, as well as the distribution of benefits. Integration further helps institutions to innovate and supply new technologies, and in creating conditions to promote livelihood strategies that is consistent with the goal of biodiversity conservation, sustainable land use and management practices.

The primary responsibility for integration rests with land policy developers and land use planners, which needs to have the knowledge about biodiversity and the commitment to integrating it in the land policy and land use planning process.

5. **Standards, codes of conduct, certification schemes, guidelines and good practices**

Industrial standards, codes of conduct (e.g., mining, maritime activity, fishing, etc.), certification schemes (e.g., timber, labor and general sustainability certifications), guidelines and good practices (e.g. tourism, corporate social and environmental responsibility) are vital tools for integrating biodiversity concerns in decision making processes.

Set both at the national and regional levels, standards consist of technical definitions and guidelines that serve as instructions for designers/manufacturers and operators/users of manufactured products. Standards are developed and written by professionals, while conformance to standards are often stamped on product labels to promote sales. Usually voluntary, standards are not enforceable by law, although the backing of government national and regional standard organizations command puts pressure on manufacturers to conform to published standards.

For example, the African Regional Standards Organization (ARSO), one of the subsidiary organs of the African Union, in its 2012 – 2017 Strategic Framework aims to develop and disseminate harmonized standards and guidelines to support intra, inter African and international trade and industrialization, but there is no mention of biodiversity. There is thus the need to engage national and regional levels experts working on standards to regulate industrial and other investments by specifying, for example, alteration limits (e.g. no more than 50% of natural forest may be damaged).

A code is a standard that has been adopted by one or more governmental bodies and is enforceable by law. Codes of Conduct set out standards of behavior for responsible practices to promote sustainable use and are often sector specific, e.g., responsible mining, fisheries (e.g., FAO Code of Conduct for Responsible Fisheries), etc. Africa's mining codes have shown improvement by incorporate transparency and accountability provisions, although more work needs to be done to protect biodiversity and rehabilitate mined out lands.

Since the Rio Summit, several certification schemes have been developed; e.g., Marine Stewardship Council, the Forest Stewardship Council, the Marine Aquarium Council, Roundtable on Sustainable Biofuels (RSB), and Tourism certification schemes. These certification schemes demand adherence to established criteria in order to carry the logo or name of the certification scheme. Certification schemes can thus be powerful tools for

incorporating biodiversity concerns in the criteria for certification by offering consumers' to purchase a more sustainable product, thereby promote conservation and sustainable use as well as build a sustainability culture.

Good practices guidelines provide voluntary and practical advice on undertaking business activities. A notable example is the CBD Guidelines on Biodiversity and Tourism Development issued for use by stakeholders including local, regional, national governments, indigenous and local communities to manage tourism activities in an ecologically, economically and socially sustainable manner. The Guidelines have three parts: (i) framework for management of tourism and biodiversity; (ii) notification process in relation to such a management framework; (c) public education, capacity-building and awareness-raising concerning tourism and biodiversity with ten steps (CBD Secretariat, 2004):

- Baseline information and review;
- Vision and goals;
- Objectives;
- Review of legislation and control measures;
- Impact assessment;
- Impact management and mitigation;
- Decision-making;
- Implementation;
- Monitoring and reporting;
- Adaptive management

## 6. Ecosystem approach to urban development

Africa is the world's most urbanizing continent. This fastest urbanization rate comes with enormous challenges: massive population growth against the backdrop of limited housing and transport facilities, water shortages and frequent electricity outages; deepening poverty and urban slams. Most of these slums are breeding grounds for diseases, crime and sustained poverty. Poor health due to lack of access to clean water supply and sanitation and air pollution. Coastal cities like Dare Salam, Maputo, Dakar, Lagos, Alexandria, etc. face high vulnerability to climate risks, in particular to sea level rise. Urban development decisions involve vast capital layouts and, consequently, can lock cities or even entire countries in a particular development path, hence the need to influence decisions toward biodiversity conservation and sustainable use.

Conventional urban management and planning approaches are not based on sufficient recognition that proper regional ecosystem functioning and maintenance are vitally important for people, health, economy, recreation, and overall environmental quality. Too often, present urban management practices are too site-specific and local based and fail to take into consideration the inter-linkage between the city and the rest of the region and

the country as well as the fact that the major issues for good urban development lie outside the city boundaries. African cities and towns will increasingly be the locations where human activities and their associated ecological impacts pose policy and planning challenges.

In 2004, the CBD-COP agreed upon the CBD ecosystem approach. This is “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way” (CBD Secretariat, 2004). The approach recognizes: (i) humans, with their cultural diversity, as an integral component of ecosystems; (ii) the interconnectedness of essential processes and functions as well as interactions among organisms and their environment; and (iii) societal choice, stakeholder participation and adaptation as essential management tools.

Therefore, the application of ecosystem approach to urban development in Africa helps to integrate biodiversity in urban investment decision making processes and ultimately help the attainment of sustainable cities.

## 7. Strategic environmental assessment (SEA), Environmental impact assessment (EIA) and other assessment tools

Assessments help establish initial conditions of the assessed object, measure changes over time and space, identify drivers of the change (triggers and amplifiers), capture the chain effect (actions and reactions) and bring science and policy/programmes/projects together. Today, strategic environmental assessments (SEAs) and environmental impact assessments (EIAs) are widely used to ensure that projects, programmes and policies are economically viable, socially equitable and environmentally sustainable. In addition to SEAs and EIAs, biodiversity assessment (BA), Environmental Security Assessment (ESA), Environmental Risk Assessment (ERA), Poverty Assessment (PA), Vulnerability Assessment (VA), the Millennium Ecosystem Assessment (MEA), and Sustainable Assessment (SA) have been developed and applied. All these tools have one common objective: inform development policies and programs in a timely manner to promote and achieve sustainable development, which biodiversity conservation and sustainable use is an integral part of.

The Millennium Ecosystem Assessment (MEA) has been a massive undertaking covering the entire earth’s surface that provided a holistic idea on the status of various ecosystems, drivers of ecosystem degradation, impacts of degraded ecosystems on human well-being and economic development, and options available to conserve the integrity and diversity of ecosystems to meet human and ecological needs.

These assessments are important tools for integrating biodiversity concerns in planning and decision making processes; which in turn means that they need to be expanded and improved upon to reflect biodiversity concerns in the manner outlined in the mitigation hierarchy:

- Avoidance: avoiding creating impacts from the outset.
- Minimization: if avoidance is not possible, taking measures to reduce the duration, intensity and / or extent of impacts
- Rehabilitation / restoration: if impacts cannot be avoided or minimized, taking measures to rehabilitate degraded ecosystems following exposure to impacts.

Once the mitigation hierarchy is completed, take additional measures to offset any residual impacts.

Many countries may not have the capacity to implement the above in the short to the medium term. But efforts need to be made to ensure that SEA's and EIAs help establish initial biodiversity conditions, take account of changes in the abundance and variability of species, genes and ecosystems over time and space, identify drivers of the change (triggers and amplifiers), capture both actions and reactions (responses) – the chain effect, and propose actions to promote biodiversity conservation and sustainable use side by side with economic growth. Strategic environmental assessments have high potential for addressing biodiversity in planning and policy development.

## 8. National biodiversity offset policy

Many development activities e.g., agriculture, infrastructure (roads, rails, airports, buildings), industry, mining, oil and gas, tourism, etc., adversely impact biodiversity. In particular, the loss of biodiversity arising from habitat loss and deforestation associated with agriculture, mining, oil and gas has been considerable. While some losses can be avoided, others have been unavoidable. Avoidance entails high opportunity costs and creates financial and social dilemma for political leaders and population to forfeit huge revenues.

Governments and CSOs desire achieving No Net Loss (NNL), in fact a Net Gain (NG) of biodiversity and attract more investment to conservation. The quest for innovative mechanisms to compensate for unavoidable losses to biodiversity and impacts on human well-being has gathered momentum in recent years. Efforts that initially focused on the rigorous application of the mitigation hierarchy have moved to using biodiversity offsets to tackle residual impacts - generally left uncompensated in most planning processes.

In a report released in June, 2015, IUCN defined "biodiversity offsets as measurable conservation outcomes resulting from actions designed to compensate for significant

residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken."

The objective of a national biodiversity offset policy is to achieve NNL and preferably a NG of biodiversity on the ground with respect to species abundance and variability, habitat structure, ecosystem functions and services, people's use, educational, cultural and spiritual values associated with biodiversity.

A national biodiversity offsets policy seeks to establish mandatory and voluntary offsetting schemes with measurable outcomes. The policy also gives guidance on when offsets are and are not an appropriate conservation tool, i.e., biodiversity offsets are only appropriate for projects which have rigorously applied the mitigation hierarchy and when a full set of alternatives to the project have been considered.

Some conditions where offsets must not be used: (IUCN 2015):

- Where impacts are likely to result in any elements of biodiversity becoming extinct;
- Where the success of the offset action is highly uncertain
- Where resources generated by offsets are likely to substitute for, rather than add to, other resources for conservation;
- Where the exchanges involved in the project's residual losses and the predicted offset gains are considered socially or culturally unacceptable;
- Where the time lag between the residual loss of biodiversity caused by the project and the gains from the offset cause damage that cannot be remediated and/or puts biodiversity components at unacceptable risk.

Under current African conditions, developing a national offsets policy and putting in place the necessary legal, institutional and financial mechanisms for implementation is huge undertaking. The technical capacity is also lacking. But efforts need to be made to jump start the preparatory work for developing an offset biodiversity policy through workshops, seminars and other training programs.

## Resource mobilization for biodiversity integration

The availability of adequate and predictable funding for biodiversity programs and projects is *sine quo non* for a successful integration of biodiversity in national planning processes, conserve and sustainable use biodiversity and ultimately achieve sustainable development.

### a. **Developing a resource mobilization strategy and plan**

The CBD COP 11 (Decision XI/4)[26] foresaw a substantial increase in total biodiversity-related funding for the implementation of the Strategic Plan for Biodiversity 2011-2020 and set the following targets:

[26] https://www.cbd.int/decision/cop/default.shtml?id=13165

- Double total biodiversity-related international financial resource flows to developing countries, in particular least developed countries and small island developing States, as well as countries with economies in transition, by 2015 and at least maintaining this level until 2020;
- At least 75 per cent, of Parties to have included biodiversity in their national priorities or development plans by 2015 and have therefore made appropriate domestic financial provisions;
- At least 75 per cent, of Parties provided with adequate financial resources to have reported domestic biodiversity expenditures, as well as funding needs, gaps and priorities, by 2015;
- At least 75 per cent, of Parties provided with adequate financial resources to have prepared national financial plans for biodiversity by 2015, and that 30 per cent of those Parties have assessed and/or evaluated the intrinsic, ecological, genetic, socioeconomic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components;

Effective resource mobilization for biodiversity requires a comprehensive approach (CBD Secretariat, 2012) that includes: domestic resource mobilization strategy, human and institution building (national budget and financial planning), imbedding biodiversity in sectoral development financing, a package of financial incentives, external funding, and creating enabling conditions for private sector involvement. All these have to be elaborated in series of short to medium term national biodiversity finance plans, which needs to be an organic part of the biodiversity integration process.

Building upon UNDP's BIOFIN[27] initiative, a general framework for a biodiversity finance plan includes:

- Assessment of current funding, patterns and constraints
- Estimate short to medium term needs
- Generate revenues from existing (traditional) sources through building capacities for program and project development
- Put in place innovative approaches, for example, impact investment in conservation projects, green taxes (e.g. fuel taxes, taxes on chemical pesticides, water fees etc.), the issuance of debt instruments such as green and blue bonds;
- Realign current expenditures through reorienting existing financial flows towards biodiversity, for example, phasing out fossil fuel/ energy subsidies and using these freed resources to invest in renewable energy or conservation projects;

BIOFIN is an innovative methodology for using financial mechanisms, approaches and strategies, and economic evidence and tools, to promote finance solutions to improve the sustainable management of biodiversity.
Source: UNDP BIOFIN Initiative

[27] See UNDP's BIOFIN Initiative, http://www.biodiversityfinance.net.

- Replace policies and institutional practices that encourage the development of biodiversity degrading behaviour
- Enhance resource mobilization and allocation efficiency, i.e., promote synergies among MEAs and merger of national conservation funds to minimize overheads, enhance cost-effectiveness and efficiency in budget execution.

**b. Mobilizing from domestic sources**

The integration of biodiversity concerns in the national planning process offers huge opportunities to internalize funding for biodiversity and maximize revenue generation from existing and new domestic sources. Measures to be taken include:

i) **Expanding central government budgeting for biodiversit**y. This has very limited scope given competition from many other sectors of the economy, including defence and security; but has the potential to play a catalytic role. It also demonstrates the commitment of the government to biodiversity conservation, which will be a motivating factor for international organizations to raise their level of funding.

ii) **Reforming subsidies and incentive structures that work against biodiversity conservation and sustainable use**. Although country level experience difference, the amount of subsides and biodiversity degrading incentives can be substantial in dollar terms. According to the CBD Secretariat, "the volume of potentially harmful subsidies to the environment is a 9-fold multiple of total biodiversity expenditure and 75-fold multiple of ODA to biodiversity" (CBD Secretariat, 2010).

iii) **Reforming tax and credit policy**. Tax exemption measures in national taxation systems can facilitate resource flows to biodiversity objectives, and these are increasingly introduced in many countries. Income tax deductions can be found for biodiversity products, land use changes and donations. Similarly, there are land tax exemptions for nature reserves and protection commitment, value added tax (VAT) exemptions for biodiversity equipment, products and special funds, custom duty exemptions for biodiversity-related imports and technology, tax exemptions on international cooperation procurement, tax exemptions for charitable organizations and foundations, and other tax exemptions that can be beneficial to biodiversity objectives.

iv) **Maximize funding from CBD related financing instruments**

Indeed, since the CBD came into the global scene, many innovative biodiversity financing mechanisms which will continue to be vital source of funding.

- **The Global Environment Facility (GEF) -** the financial mechanism of the CBD with direct accountability to the Conference of the Parties. It is based on the principle of incremental financing and leverages $5.2 in additional financing for every $1 invested. GEF funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements. GEF reports[28] that for the period, 2014-2018, GEF resources stand at 4.43 billion. In 2016, sub-Saharan Africa share of GEF stood at 20.8 percent or $751 million compared to Latin America & Caribbean's share of 23.2 percent ($836 million) and East and South Asia share of 22.3 percent (805 million). Through the GEF, other funds that African countries can access include:
    - The **Special Climate Change Fund** (SCCF) – available to parties to the UNFCCC and supports adaptation and technology transfer in water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, including mountainous ecosystems, and integrated coastal zone management.
    - The **Least Developed Countries Fund** (LDCF), established under the UNFCCC, supports reduction of the vulnerability of critical sectors such as water, agriculture and food security, health, disaster risk management and prevention, infrastructure, and fragile ecosystems.

    - The **Nagoya Protocol Fund** supports signatory countries of The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (the Nagoya Protocol) through implementation of projects.

    - The **Adaptation Fund** (AF) - established to finance adaptation projects and programmes vulnerable to the adverse effects of climate change. The Adaptation Fund is overseen by the Adaptation Fund Board, which has a majority of members that represent developing countries and meets in person twice a year to review policy and project proposals

v) **Mobilizing resources from bilateral and inter-governmental organizations –** The integration of biodiversity in national planning processes enhances resource

[28] See, https://www.thegef.org

mobilization from bilateral ODA, which largely focused, hitherto, on funding poverty reduction and livelihoods improvement and side-lined biodiversity conservation and sustainable use.

vi) **Private financial resources** - Private sector financial institutions are increasingly becoming an important source of funding through: (i) raising and managing capital, i.e., expansion of green investment portfolios, sales of green products and philanthropy, investments in commercial activities that produce positive biodiversity outcomes; (ii) using financial incentives to support sustainable biodiversity management; and (iii) creation of biodiversity linked banking such as habitat banking.

vii) **Non-governmental organizations**: have been and continue to be a driving force of mobilizing financial resources for nature conservation, sustainable forest and land management, community, collaborative and participatory management of the commons, curbing and eliminating illegal logging and poaching, and management of national parks and protected areas, among others.

viii) **Regional development banks**: In recent years, the African Development Bank (AfDB) has improved and expanded its lending program objectives[29] to include: (i) biodiversity conservation, more specifically the implementation of the mitigation hierarchy and biodiversity offsets; (ii) protection of natural and critical habitats; and (iii) sustenance the availability and productivity of ecosystem services. The Bank has also created or is managing several biodiversity related funds, including: Climate Investment Funds (CIFs), the Global Environment Facility (GEF), the Sustainable Energy Fund for Africa (SEFA), the Africa Water Facility (AWF) and the Congo Basin Forest Fund (CBFF). In April 2014, it created the Africa Climate Change Fund (ACCF) to complement its own resources and the climate-change related trust funds managed by the Bank ((SEFA, CBFF, Clim-Dev, etc.), (AfDB, 2014). The Bank is planning to set up an Africa Green Facility to help it consolidate existing climate finance instruments managed by the Bank and mobilize additional financing from private capital, trust funds and other sources of finance (e.g. sovereign wealth funds, targeted African contributions, foundations, solidarity funds, funds from Arab countries and BRICS (AfDB, 2014).

ix) **Payment for the damage done to environment.** This encompasses charges and fees for non-observance of environmental rules and regulations or on conducts and activities that are harmful to the environment, including charges for

[29] See, www.afdb.org

disposing pollutants, dumpage charges in lakes, rivers and coastal areas or the use of these areas.

x) **Non-tax revenues:** national parks, biosphere reserves, arboretums, and also forest and livestock departments charge fees for services they provide including for such activities like collection of mushrooms and medicinal plants, Christmas trees ecotourism, walking trails, elephant rides, issuing filming licenses, and monkey export.

xi) **Pricing policy** – because biodiversity is not valued, it does not enter the market. In areas, where there has been valuation, for example, timber, price determination is based on the costs of extraction and the need to generate specific revenues, without consideration of costs of replacement. Often, land lease rates as experienced in recent years with the land grab phenomenon; and timber product prices are grossly undervalued and sold well below their true values. “The introduction of modern technologies, along with revised pricing and effective marketing of timber, could increase income from forestry by 650%” CBD Secretariat, 2010.

xii) **Debt for Nature**: One of the important developments of the post UNCED era has been the introduction of debt-for nature swaps and the use of biodiversity as part of the solution to the debt problem. “Over US$1 billion in environmental funding was generated in nearly 30 developing countries, in particular in the form of trust funds. …..Germany alone had nearly 1.7 billion Euros outstanding debts in 2007 that could be converted for biodiversity purposes” (CBD Secretariat, 2010).

xiii) **National environmental funds:** Although Africa is lagging behind the rest of the developing world, many environmental funds have been establish, most supported by external funding, including debt for nature swaps. “A review of 50 conservation trust funds has observed that some US $810 million have been raised for biodiversity conservation worldwide, including 74% in Latin America, 10% in Asia, 9% in Africa, and 7% in Europe” (Secretariat of CBD, 2010).

xiv) **Bioprospecting fees**: The economic and production values of biodiversity can be developed for high price valued pharmaceutical, agricultural, cosmetic and other applications. Manufactures need to pay for harvesting the biochemical and genetic material that they use as industrial raw material. These payments may take the form of fees, royalties or lump sum amounts for the right to explore and research, while larger amounts would have to be paid for use.

xv) **Other innovative financing schemes**: Huge potential exists for mobilizing resources for biodiversity from a variety of innovating financial instruments over and above the ones mentioned above, including from establishing ecosystem markets, private sector (domestic and international), and other sources.

## Sustaining the Biodiversity Integration Process

As explained above, the integration of biodiversity concerns in national planning and decision making process is a cyclical and continuous process of planning, actions, learning, planning and actions. It is an adaptive process that requires building the necessary human, institutional and policy/ legal capacity for planning, guiding and coordinating the integration process. Among the key success factors and measures that need to be taken are:

1. **Creating a focal institution for driving and coordinating the integration agenda.**

Although the overall responsibility for national planning and implementation responsibility rests with the Ministry of Finance/Planning, there must be a focal institution for biodiversity that coordinates biodiversity issues across sectors and territories. Coordination would involve ensuring the integration of biodiversity in the planning and decision making process (macro and micro) and the annual budget, which is so vital for its continuity. Regular monitoring and reporting would also be the responsibility of this institution.

2. **Planning the integration process.**

As explained above, integration is neither a single entry task nor a one-time-all single track process. There is a need for an integration plan with its implementation regularly monitored.

3. **National ownership of the biodiversity integration process.**

The review of the NBSAP experience presented above attributes failure of the NBSAPs to significantly impact biodiversity conservation and sustainable use positively to the lack of national ownership. Many of NBSAPs remain donor and expatriate driven that kept them at the periphery of the national development decision making process. Thus, for the integration of biodiversity in national planning and decision making processes to succeed, it must be anchored in internally driven technical processes and effective stakeholders' participation with full ownership at the political level.

4. **Capacity development**

Integrating biodiversity concerns in the national planning processes is a complex and massive undertaking with multiple entry points. At each level of integration, there is a

need to develop human and institutional capacity of those involved, both at the technical and policy levels.

At the human resource level, there is a need for biodiversity awareness raising; knowledge development; changing and cultivating human behavior in support of conservation and sustainable use; and building planning, management and M&E skills.

At the institutional level, there will be a need to develop capacity for short, medium and long term planning; institutional coordination; resource mobilization; implementation, follow up, monitoring & evaluation as well as learning. A critical area is the need for better collaboration between Multilateral Environmental Agreements (MEAs) at the country level to ensure that a unified biodiversity message is communicated to all ministries to achieve synergies, avoid duplication of effort and unnecessary competition over financial resources. Often overlooked is the capacity to articulate and communicate clear message on biodiversity: why people should care about biodiversity and the fact that biodiversity conservation promotes economic growth and not derail it.

There will also be a need for building capacity at the policy and legislative levels. While African countries have adopted wide ranging policies that go a long way to foster biodiversity conservation, enforcement mechanisms are lacking.

5. **Public communication and effective participation**.
Awareness building, effective use of the media and public participation should be a continuous undertaking. Forums need to be set up for regular public consultation at the national, provincial and local levels; while educational curricula would be revised to include biodiversity from elementary to tertiary level education.

6. **Traditional knowledge and institutions**
Local people need to be fully engaged and empowered in the biodiversity integration process. Traditional knowledge and institutions play significant role in the planning and implementation of the conservation of genes, species and ecosystems as well as in the promotion of sustainable use.

## Conclusion and Recommendations

Biodiversity has been and is a defining feature of Africa's socioeconomic and cultural wellbeing and relations with the rest of the world. Admittedly, biodiversity is a central/ mainstream issue to every societal decision making process. The conservation of species, ecosystems and genes (variability, diversity and integrity) is, thus, not only a conservation task but also a development, food and livelihoods security and poverty reduction imperative.

Integration of biodiversity in national planning and economic decision making processes, development models, policies and action plans and operational programmes has the potential to place a country on the sustainable development path and the attainment of SDGs 2030 as well as Agenda 2063.. Tools and guidelines developed will go a long way to making integration a doable task. But this integration is a cyclical and continuous process of planning, actions, learning, planning and actions with multiple entry points. It is also an adaptive process that requires building the necessary human, institutional and policy/ legal capacity for planning, guiding and coordinating the integration process.

The large number of NBSAPs formulated (both in Africa and elsewhere in the world), the broad biodiversity knowledge and capacities built, stakeholder participatory processes put in place and innovative financing mechanisms sought are important achievements, have served as building blocks for the development of tools and guidelines.

Indeed, biodiversity concerns need to be integrated in short, medium and long term plans and at all stages of the development planning cycle as well as at each level of decision making. To make integration a successful endeavor, it is important to take critical measures, most notably, putting in place national owned, internally driven and participatory processes well informed by science and local knowledge; designating a lead institution, effective resource mobilization and capacity development.

This study builds on lessons learned over the past two and half decades, but at the same time represents a departure from the past in the sense that it values processes, promotes knowledge development on the *raison d'etre* of integration, advocates holistic approach with multiple entry points, addresses issues of what, where and how to integrate biodiversity in the planning and critical decision making processes over time, space and sector.

To this end, it is strongly recommended that this study be tabled to an Africa wide validation workshop. The workshop will be a critical first step toward the creation of an enabling environment for internalization and building a sense of ownership of the tools and guidelines by AU member states. Once the tools and guidelines are improved upon based on feedback received, it is further recommended that a domestication agenda be crafted and pilot tested in selected countries.

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## Annex I. Terms of Reference of Study

### DRAFT TERMS OF REFERENCE ON DEVELOPMENT OF TOOLS AND GUIDELINES FOR INTEGRATION OF BIODIVERSITY INTO THE NATIONAL PLANNING PROCESS

## 1. Context and Justification

The EC-ACP Programme is a Programme on Capacity Building related to Multilateral Environmental Agreements (MEAs) for African, Caribbean and Pacific ACP Countries. The EC is the funding Agency for the Programme and has established it in answer to the needs of ACP countries particularly those of Africa to effectively meet their obligations under MEAs. The overall objective of the programme is to promote environmental sustainability in the ACP countries thereby contributing to sustainable development and poverty reduction strategies. The European Commission (EC) is the Funding Agency for the Programme and United Nations Environmental Programme (UNEP) is the overall Coordinator. The AUC is the Hub for the African component of the programme and the Programme is housed at the Department of Rural Economy and Agriculture. The Programme covers 48 African ACP countries. The specific objective for the African component is to strengthen the capacities of the Commission of the African Union in its coordination and leadership role on environmental issues on the continent, enhance the capacities of the Regional Economic Communities (RECs) and African ACP countries to effectively implement their obligations and commitments under global and regional environmental agreements and other international legal instruments.

Africa is endowed with rich biodiversity; and is acknowledged as a global center of crop plant, animal and genetic diversity. This biodiversity has been a defining feature of the continent's history, culture, economic and social organization. Today, more than 80 percent of the African population derives its livelihood from biodiversity (wildlife, crops, medicinal plants and herbs, timber, livestock, fishing, hunting, etc.), while about 90 percent of the household energy and export earning is derived from biomass.

To Africans, the benefits derived from biodiversity are, indeed, massive and include:( i)source of livelihoods, i.e., food and feed (as primary and secondary sources), developing and maintaining the genetic basis for agriculture, and for supporting industries based on use species such as fisheries and timber extraction; energy, construction and furniture; (ii)medicinal values (traditional as well as raw material for pharmaceutical industries, (iii) ecological values (enhance ecosystem services and functions); primary conversion of sunlight to energy, nutrient cycling and retention, recycling of organic wastes, soil formation, moderation of climate extremes, moderation and control of flood damage, control of insect pests, protection of water quality; procreation values (provide refuge pollinator species) and pollination of crops; hydrological services , (iv) social and cultural values – Africans attach high values to biodiversity as part of their cultural heritage; the feeling of ethical obligation to protect other species from extinction, religious values associated with cherishing forests as sacred sites as well as the Earth and its inhabitants, and the desire to bequeath for future generations a natural heritage that they will be associated with, (v) educational and research values and ( vi) recreation and touristic values - opportunities for the outdoor recreation like bird watching, fishing, trekking; and tourist attractions

Under African conditions, conservation of species, ecosystems and genes is not only a conservation task but also a food productivity increase, livelihoods improvement and poverty reduction imperative. Reducing deforestation and biodiversity loss, for example, have positive impact on poverty reduction, food security, energy availability, economic transformation, social wellbeing, and moderating the scale of climate change through enhancing the resilience of human societies and ecosystems. Thus, for example, combating habitat loss, believed to be a major cause of biodiversity loss in Africa, (UNEP 2006) will have profound impact on almost all economic and social sectors.

Policy and strategy changes play a critical role in influencing the biodiversity degrading or conserving behavior of users considerably. For example, at the individual (household level) responses to policy may take the form of changing land use, management practices, investment, settlement patterns and migration. Community level responses may include changing the size of commons, the rules governing uses and transfer of common resources, or the distribution of benefits; while aggregate (macro) level responses may take the form changes in fiscal and monetary policy, investment policy, land concessions, area under national parks and protected areas, etc.

At the continental Africa level, one of the land mark agreements was the African Convention on the Conservation of Nature and Natural Resources adopted in Algiers in 1968 by then Organization of African Unity (OAU). The Convention called for "the conservation, utilization and development of natural resources, particularly soil, water, flora and fauna resources based on scientific principles" to meet societal needs (UNEP 2003). The Revised African Convention on the Conservation of Nature and Natural Resources (Maputo Convention), under the auspices of AU and adopted in Maputo in 2003, addresses continent-wide issues ranging from sustainable management of land and soil to water, air and biological resources and seeks to integrate conservation and better environmental management strategies into social and economic development aspirations. The AUC through its MEAs Project is developing practice manual to promote ratification of this Convention.

Biodiversity Conservation and Sustainable Natural Resources Management is a leading goal area of Agenda 2063 recently adopted by the AU Heads of State and Government. According to Agenda 2063m Africa's biodiversity, including its forests, wild life, wetlands (lakes and river beds), genetic resources, as well as aquatic life, most notably fish stocks and coastal and marine ecosystems will be fully conserved and used sustainably by 2063; while forest and vegetation cover would be restored to 1963 levels; while national parks and protected areas (both terrestrial and marine) will be well managed and threats to them eliminated. Furthermore, according to Article 6 b, Parties have an obligation to: "Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectorial or cross-sectorial plans, programmes and policies." While "integration" remains central to the implementation of the CBD, there is wide recognition that it has been and continues to be a complex undertaking that requires addressing technical, political, financial and institutional issues in an integrated manner.

## 2. Objective of the consultancy

The capacity needs so far identified in the areas of biodiversity clusters include adequate national and sub-regional policy frameworks for the effective implementation of global and regional conventions , development and implementation of national legislative frameworks in a coordinated manner, in order to comprehensively address the complexity of issues covered by global conventions and adequate institutional mechanisms for the implementation of such frameworks, including strengthening the role of existing environmental institutions.
Among the key activities planned by the AUC MEAs Project during the 2014-2017 Strategic Plan periods include the development of tools and guidelines for integration of biodiversity into national planning processes.

The objective of the consultancy is to develop tools and guidelines for integration of biodiversity into the national planning process
In order to achieve this assignment, the consultant will perform the following tasks:

i. Review the overall status of biodiversity policy and integration in the national, regional and continental development strategies, plans and decision making processes;
ii. Identify tools and guidelines developed to integrate biodiversity into sectoral strategies and national plans and assess their effectiveness, including:
    - National Conservation Strategies,
    - NBSAP
    - Action plans developed to implement the UNCCD, UNFCCC, etc.
    - Other sectoral strategies and action plans such as on national parks and protected areas (both terrestrial and marine);
    - SEA's and EIAs and related tools
    - Plans and programmes as well as industry standards, codes of conduct (sustainable fisheries, sustainable land and forest management, plant genetic resources, etc.) and guidelines developed and good practices; certification schemes that relate to biodiversity conservation, sustainable use and the sharing of benefits derived from there;
    - Financial strategies and tools including economic valuation of biodiversity and economic incentives to conserve and sustainable use biodiversity;
iii. Distill lessons learned and identify best practices in integration of biodiversity into development decision making processes;
iv. Develop tools and guidelines that are well informed by prevailing African conditions and global knowledge;
v. Propose mechanisms for effective implementation of tools and guidelines developed, including among others participatory processes (technical and policy levels), development of indicators and capacity building;
vi. Submit a consolidated report

## 3. Methodology

The Consultant is required to prepare a detailed methodology for the assignment. This methodology will include, among others, the follow*in*g:

i. Literature review to help full understanding of NBSAP and integration efforts made at the country, RECs and continental level, including at the level of AU organs and other institutions, as well as at the global level;
ii. Review of assessment studies and work done by UNEP and other institutions
iii. Conduct interviews by Email or Skype (formal and informal) with key informants (AUC and UNEP); which will include designing a questionnaire that enables to capture information needed
iv. Validating findings of the study.

## 4. Deliverables

i. Inception report with indication of methodology to be used as well as the road map to achieve the mandate
ii. Review of current status and establish a baseline situation where institutions are today in the integration of biodiversity into development decision making process
iii. Key lessons learned and key best practices within Africa and other developing countries outside the continent
iv. Tools and guidelines informed by current situation and global knowledge
v. Proposal on innovative strategies, policy options and priority measures.
vi. Power point presentation to the validation meeting (workshop )to be organized by MEAs project and UNEP
vii. Final report

## 5. Duration of Assignment

The assignment shall commence on May 1st, 2016 and be finalized not later than July 30 th.

## 6. Required Qualification and Experience of the Consultant

i. The consultant should possess an advanced university degree, MA or MSC or PhD or equivalent in development policy studies and planning, natural resource management, or environmental policy; and at least 10 years' experience including economic/ social and biodiversity planning and management
ii. Should demonstrate good knowledge of CBD and related conventions as well as a strong understanding of how each key sector impacts biodiversity and is impacted upon by measures taken to conserve sustainable use and equitably share benefits derived from that use.
iii. **Language:** The candidate must be fluent in English and possess excellent written and oral communication skills. Working knowledge of French and any other AU official language would be an advantage.

iv. **Other Skills:** The expert should have advanced computer skills for compilation; analysis and dissemination of statistical data are required.

### 7. Conditions of Work and Remuneration

Under the supervision of MEAs project and UNEP, the consultant will carry out the work on basis of desktop research, publications, review, interviews, and surveys as stated under point 2. The MEAs project management unit (coordinators) within the DREA will have the responsibility of liaising with the consultant and assisting with logistical support, as the case may be, in setting up consultation with UNEP and African Union Departments or others partners

The duration of the consultancy will be for a period of three months.

## Annex II. Draft Work Plan (September – November 2016)

| | Tasks | Deliverables | September | | October | | November | |
|---|---|---|---|---|---|---|---|---|
| 1 | Prepare an inception note, including the conceptualization, methodology, work plan for the assignment as well as outline of report | Inception report and study methodology | | | | | | |
| 2 | Review the overall status of biodiversity policy and integration in the national, regional and continental development strategies, plans and decision making processes | Review of current status in the integration of biodiversity into development decision making process | | | | | | |
| 3 | Identify tools and guidelines developed to integrate biodiversity into sectoral strategies and national plans and assess their effectiveness, including:<br>• National Conservation Strategies,<br>• NBSAP<br>• Action plans, UNCCD, UNFCCC, etc.<br>• Other sectoral strategies and action plans such as on national parks and protected areas, including marine;<br>• SEA's and EIAs and related tools<br>• Plans and programmes as well as industry standards, codes of conduct (sustainable fisheries, sustainable land and forest management, plant genetic resources, etc.) and guidelines developed and good practices; certification schemes that relate | A review of the baseline situation where institutions are today to identify gaps, constraints and opportunities | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | to biodiversity conservation, sustainable use and the sharing of benefits derived from there;<br>• Financial strategies and tools including economic valuation of biodiversity and economic incentives to conserve and sustainable use biodiversity | | | | | | | |
| 4 | Distill lessons learned and identify best practices in integration of biodiversity into development decision making processes | Key lessons learned and key best practices within Africa and other developing countries outside the continent | | | | | | |
| 5 | Develop tools and guidelines that are well informed by prevailing African conditions and global knowledge | Tools and guidelines informed by current situation and global knowledge | | | | | | |
| 6 | Propose mechanisms for effective implementation of tools and guidelines developed, including among others participatory processes (technical and policy levels), development of indicators and capacity building | Proposal on innovative strategies, policy options and priority measures | | | | | | |
| 7 | Provide technical support for the preparation of the validation meeting to be organized by MEAs project and UNEP | Power point presentation to the validation meeting | | | | | | |
| 7 | Writing a consolidated analytical report with recommendations | Final report | | | | | | |

**Annex III. Status of Development of National Biodiversity Strategies and Action Plans or Equivalent Instruments (NBSAPs) at 19 August 2016**

*African Parties that have revised NBSAPs* ***(year of completion indicated where year of adoption is unknown)***

Source: CBD Secretariat, 2016 https://www.cbd.int/nbsap/

1. Algeria (2005)
2. Angola (2006)
3. Benin (2002, 2016)
4. Botswana (2005, 2007, 2016)
5. Burkina Faso (1998, 2011)
6. Burundi (2000)
7. Cabo Verde (1999, 2014)
8. Cameroon (1999, 2012)
9. Central African Republic (2003)
10. Chad (1999, 2014)
11. Comoros (2000)
12. Congo (2001, 2015)
13. Côte d'Ivoire (2002*, 2016) *Strategy only
14. Djibouti (2001)
15. Egypt (1998, 2016)
16. Equatorial Guinea (2005, 2015)
17. Eritrea (2000, 2014)
18. Ethiopia (2006, 2015)
19. Gabon (1999)
20. Gambia (1999, 2015)
21. Ghana (2002) *Strategy only
22. Guinea (2001) – under review
23. Guinea-Bissau (2001, 2015)
24. Kenya (1999) – under review
25. Lesotho (2000)
26. Liberia (2003)
27. Madagascar (2002, 2007, 2016)
28. Malawi (2006, 2015)
29. Malaysia (1998, 2016)
30. Mali (2001, 2014)
31. Mauritius (2006)
32. Mauritania (1999, 2014)
33. Mongolia (1996, 2015)
34. Morocco (2002, 2004, 2016)
35. Mozambique (2001, 2003, 2015)
36. Namibia (2002, 2014)
37. Niger (2000, 2009, 2014)
38. Nigeria (2006, 2015)
39. Rwanda (2003)
40. Senegal (1998, 2015)
41. Seychelles (2008, 2015)
42. Sierra Leone (2003)
43. Somalia – first NBSAP under development
44. South Sudan – first NBSAP under development
45. South Africa (2005, 2015)
46. Sudan (2000, 2015)
47. Swaziland (2001)
48. Togo (2003, 2014)
49. Tunisia (1998) – under review
50. Uganda (2002, 2015)
51. United Republic of Tanzania (2004, 2015)
52. Zambia (1999, 2015)
53. Zimbabwe (2002, 2014)