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AFRICAN FORESTRY AND WILDLIFE COMMISSION

NINETEENTH SESSION

THIRD AFRICAN FORESTRY AND WILDLIFE WEEK

WINDHOEK, REPUBLIC OF NAMIBIA
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Theme: Development of the Forest and Wildlife Sectors for effective contribution to Food Security and a Green Economy in Africa

VALUATION OF THE CONTRIBUTION OF FORESTS AND WILDLIFE TO ECONOMIC DEVELOPMENT IN AFRICA

Background

1. African forests account for 23 per cent of the continent's total land area or about 675 million hectares. Besides contributing significantly to the local, national, regional and global economies, forests and wildlife resources support the livelihoods of millions of people. For instance, more than 80 percent of the population in sub-Saharan Africa derive their energy needs from forests and woodlands. They also perform a wide range of essential ecosystem services such as mitigating climate change, regulating water supplies, and buffering floods and droughts. Yet these services are often the subjects of severe disregard. While low budgets and inadequate investments continue to plague the forest and wildlife sectors, lack of timely and reliable information on, or a full understanding of their contribution to society often drive deforestation and forest degradation. During the last decade alone, according to FAO's Global Forest Resources Assessment (FRA 2010), the continent lost about 34 million hectares of forests. Hence it becomes imperative that the forest agencies effectively and consistently communicate to the public and policy makers the true values of these resources to society and build support for their sustainable management.

Valuing the contribution of forest and wildlife sectors

2. Emphasizing the marketplace value of ecosystem services provided by forests and wildlife such as water purification, flood and climate control, biodiversity, and scenic landscape, is an effective way to remind people of what was being lost through deforestation and forest degradation. Currently, governments and businesses often treat some of these ecosystem services as free and limitless. Taken for granted as public benefits, these services also lack formal markets and as such are absent from society's traditional economic exchanges.

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3. Putting a price on natural resources and incorporating those prices into the cost of goods and services can create an economic incentive for their conservation and promote responsible decision making. In particular, use of monetary units better conveys the impacts of changes in these services in units that are easily understood by decision makers and the general public. Such an approach could also help better recognition of their importance to the other spheres of economy such as tourism, energy, and agriculture. It could minimize their unbridled exploitation and encourage the development of partnerships and innovative solutions to mobilizing resources for their sustainable management.

4. It is, however, important to note that economic valuation is one of the many possible ways to define and measure "value". In certain cases the number of people the forest sector could help to come out of poverty and food insecurity may be a more powerful measure to highlight the importance of forests than the extent of forest area being managed or the monetary value of it.

Approaches to ecosystem services assessment and valuation

5. In recent years, ecosystem service valuation has emerged as a major policy effort in many countries; and worldwide, new and innovative ways of capturing the values of goods and services provided by forests and wildlife are emerging. Assessing the value of the total flow of benefits from ecosystems is the most often sought after information from national economies point of view. Other areas where valuation is often needed include determining the net benefits of interventions that alter ecosystem conditions, and examining how the costs and benefits of ecosystem services are distributed.

6. Most countries have formal mechanisms to measure and report the contribution of forest and wildlife sectors to national income, a partial measure of the total flow of benefits from ecosystems - usually measured in terms of GDP (the total market value of all goods and services produced in an economy in a given period, usually one year). Measured in this manner, the forestry sector in Africa, on average, is estimated to account for 1.3 per cent of its GDP. While this is an important measure, there are currently several shortcomings in this estimation which include:

- incorrect classification of activities so that income and employment from forestry/wildlife are recorded elsewhere;
- exclusion of the informal uses (such as for subsistence, fuelwood), which contributes significantly to income and employment in many countries. This gap could be particularly harming the poor as little attention is paid to this element in policy making in the absence of authentic information on it.
- failure to take ecosystem services into account that are often critical to the performance of the other sectors. This hampers the development of necessary measures to ensure a "level-playing" field and effective internalization of positive externalities.

7. As a result of these limitations, contribution of the forest and wildlife sectors is currently greatly undervalued which leads to decision-makers giving them low priority in resource allocation.

8. More importantly, it is necessary to recognize forest and wildlife resources as key components of a nation's natural capital as a basis not only of production but of life itself. Thus maintaining minimum levels of these resources is critical for effective functioning of natural ecosystems and to achieve and sustain adequate levels of economic and social well-being. Governments, businesses and organizations will be able to do so only if forest and wildlife resources are properly accounted for and their use or degradation is effectively monitored in national accounting frameworks (environmental accounting).

9. Estimating total economic value of ecosystem service benefits involves identifying all mutually-compatible services provided, measuring the quantity of each service provided, and multiplying each service by the value of it and summing up all the values. Although this may appear to be simple, clearly identifying and measuring the "quantity" of a service, or estimating its "value" are both challenging. This explains why very few countries have attempted to incorporate natural resources valuation in their national accounting frameworks. This also requires the combination and application of a suite of broad as well as some specifically tailored valuation techniques.

10. The main categories of valuation methods are:

- Revealed Preference Methods which are based on analysis of actual behaviour of individuals and include techniques such as Market Pricing, Production Cost, Hedonic Pricing and Travel Cost methods. These are mainly used for measuring direct values where there is a market price or its proxy available .
- Imputed Willingness to Pay methods that include Damage/Replacement/Avoided Cost techniques. The value of some ecosystem services is estimated based on the cost of actions required to avoid the adverse effects that would occur if these services were lost, or to replace the lost services. India, for example, imposes a levy on development projects that involve diversion of forest areas for non-forestry purposes. To avoid costly assessment procedures, it uses a generic methodology to arrive at the compensatory amount to be paid (which ranges from US$14,000 to US$20,000 per hectare) and has thus accumulated about US$2.3 billion in a specially created fund.
- Stated Willingness to Pay methods such as Contingent Valuation and Choice Experiment techniques use surveys to ask people directly what they are willing to pay, based on hypothetical scenarios. Alternatively, people are asked to make tradeoffs among different alternatives, from which their willingness to pay is estimated. These are mostly applied to assess non-use values or for services that are not traded in markets, and are not closely related to any marketed goods.

11. As a practical and low cost option, often the benefit transfer method is used. Here the economic values for ecosystem services are estimated by using relevant information from studies carried out in another locations and/or context. It is, however, important to note that there is no best universal method to apply. And valuation is not a single time activity but a process requiring application of situation specific approaches and techniques and involvement of various stakeholders. Valuation of ecosystem services is a potentially powerful tool to influence public policy, but it has to be applied correctly to be of use.

Application of ecosystem services valuation in Africa

12. The vast majority of efforts in Africa have focused on valuing a sub-set of the benefits of particular ecosystems in specific locations. For instance, the recent UNEP study (2012), while illustrating the importance of the montane forests of Kenya, also demonstrated how their loss could impact several key economic sectors such as tourism, power and agriculture. A study on African ecotourism estimated its contribution at 8.3 per cent of Africa's GDP while yet another report estimated generation of about US $20 million annually from tourism based on gorilla viewing and other activities in the Great Lakes area. Currently, FAO, GIZ and other organizations are pursuing efforts to assess the socio-economic contribution of forests and rangelands in countries in the Middle East and North Africa. At the global level, the recent TEEB (The Economics of Ecosystems and Biodiversity) report gives policy makers a comprehensive idea of the full value of ecosystem services and also the risks entailed to businesses due to the loss of natural capital.

Moving forward

13. Although interest in assessing the ecosystem services of forest and wildlife remains high, many developing countries are unable to use the relevant techniques owing to the high costs of data collection and analysis and the complexities involved in using the resultant information. Valuation of costs and benefits is strongly dependent on timely and regular provision of data and/or national proxies - which are costly. Launching valuation initiatives often involves creation of new institutional arrangements. Yet in the long run they help countries to move from approaches that hinge on natural-resource exploitation to systematic land use planning and sustainable resource management. In this context countries may ally themselves with ongoing resource inventory and accounting efforts such as the IPCC-guidelines for national greenhouse gas-inventories; the Monitoring, Reporting and Verification (MRV) systems under REDD+; the Convention on Biological Diversity's national level-

monitoring programmes; and the System of Environmental-Economic Accounts (SEEA) of the Statistical Commission of the United Nations.

Points for consideration

14. Given the importance of ecosystem services valuation and its systematic application in national planning and financial decision making, it is essential to promote a good understanding of these concepts and needed policy measures among countries. Also, in view of the growing number of opportunities that promote resource assessment and valuation, it is important to build necessary capacities to help countries effectively avail them. This may also help identify new and additional opportunities for inter-country/regional/ donor-recipient cooperation and synergies.

The Commission may wish to consider:

- the importance of and the need for ecosystem services valuation and green accounting to augmenting resources for sustainable forest and wildlife resource management;
- the efforts and strategies being applied by countries to identify and harness new opportunities to promote ecosystem services valuation and green accounting and the experiences gained:
- ways for FAO and other development partners to support countries' efforts in promoting necessary capacity building and other related activities.