

Integrating Economic Instruments for the Reduction of Forest Biodiversity Loss into Sectoral Policies and Strategies in East Africa

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Economic policies and forest conservation

There are strong links between economics, biodiversity conservation and the forces leading to forest biodiversity loss. Poor understanding of this linkage is partly contributing to the degradation of forests in the three countries of Kenya, Tanzania and Uganda. There is little appreciation of the fact that the goods and services accruing from forests will only continue if the forests are conserved, and that forest degradation actually has a cost element to our national economies. The cost element arises from degradation of the forest biodiversity and decline of the environmental quality, which decreases the production and consumption elements. This results in losses to the economies and even has global ramifications.

The contribution of the forest sector to national economies is generally underestimated (hardly ever put beyond 3%) because of emphasis only on formal wood-based industries and omission of consideration of the value of non-timber products and functions. This is despite of the forest's immense contribution to the national economies through provision of products at local level (for instance 95 per cent of the Tanzania's rural population depend on fuelwood as a primary source for energy), whereas in Kenya forests are estimated to provide basic subsistence to rural populations to the tune of US\$ 100 million. However, these benefits have rarely been captured as a contribution of the forestry sector to the GNP. Because the forest sector has such a low-recorded value throughout all the three East African countries, it has been accorded little priority in economic policies and development strategies. Macroeconomic and some sectoral policies have had a great influence on sustainable forest management. A positive influence has been because of the national trends towards decentralization, privatisation and devolution of the role of public sector, which have a greater degree of participation in forest use and management. Economic liberalisation has dismantled many of the price and market distortions that have traditionally discriminated against forests as a form of land use. However, many of these positive influences have been counterbalanced by a series of economic crises and conditions that have undermined local livelihoods and contributed to forest degradation and loss.

Sectoral economic policies largely omit forestry concerns, and tend to place

emphasis on activities which have the potential to lead to the unsustainable exploitation, clearance and degradation of forest species and areas. Many sectoral economic activities benefit from, use or degrade forest goods and services at low or zero cost. Sectoral economic instruments have sometimes acted as perverse incentives against community involvement in sustainable forest management – for example unsupportive systems of land and resource tenure, and subsidies to resource or land-degrading activities.

Policies in environment and natural resource sectors pay little attention to economic considerations, including the need to make conservation profitable to communities, the need to raise finance and funds, and the need to counterbalance disincentives and perverse incentives provided by macroeconomic and sectoral economic policies.

Underlying causes of forest biodiversity loss

Economic instruments that provide incentives and finance form an essential ingredient for forest biodiversity conservation. Conservation work will only succeed if the regional, national and local disincentives that encourage forest biodiversity degradation are revised, and replaced with positive incentives for conservation.

Literature review has demonstrated that there are very few case studies from which economic tools and instruments have been integrated in policies and strategies dealing with sustainable forest management. The few documented real-world case studies demonstrate that there are very few cases where positive incentives have been identified or set in place in East Africa to encourage people to conserve forest biodiversity in the course of their economic endeavours. On the other hand, the region is replete with cases where perverse incentives have promoted forest degradation and loss.

Thus, it is imperative that Kenya, Tanzania, and Uganda, generate information on economic aspects of forest biodiversity conservation through development of practical tools and approaches that would furnish the decision-makers and planners with the much-needed information to inform and influence policies at all levels. In influencing the policies, the target should be at both sectoral

economic and environment/natural resources policies. More often than not, majority of the sectoral policies ignores forestry concerns, in addition to acting as perverse incentives against sustainable forest management. The environment/natural resources sector policies have rarely used economic tools to support conservation goals.

The GEF Cross Border Biodiversity project is working with the national environmental agencies in Kenya, Uganda and Tanzania to address biodiversity loss issues from a regional, national and local perspective. At the site level, in Bukoba-Rakai (TZ/UG), Taita-Same (KE/TZ), Moroto-Turkana (UG/KE) and Monduli-Kajiado (TZ/KE) districts, a wide range of local and external groups have an economic interest or stake in forest biodiversity. Forest biodiversity loss is occurring largely as a result of local economic activities, most notably agricultural land-uses and natural resources exploitation. In turn, national and regional economic policies drive this loss, by encouraging economic activities to take place in ways and at levels that degrade biodiversity. These broader forces are exacerbated by local-level economic conditions that further increase the reliance of populations on forest biodiversity, including insecure and limited livelihoods, civil insecurity, and recurrent drought.

Gaps and omissions in the relevant policies are aggravated by the weak knowledge, information and use of economic instruments for forest biodiversity conservation in the three countries. These policy omissions and disincentives are manifested through a number of economic conditions that encourage forest biodiversity degradation and discourage sustainable forest management as listed below:

- Forest goods and services tend to rely on distorted markets and to be under-priced in themselves and relative to other goods and services;
- Productive sectors and economic activities that depend, directly or indirectly, on forest goods and services (such as agriculture, water, industry, construction, and energy) have little awareness or appreciation of the economic value of forests;
- Forest, environment, and natural resource sectors of the economy still have little knowledge of the economic value of forest biodiversity and ecosystems or of the need to integrate economic concerns into their activities; and
- The costs and benefits associated with forest management are distributed unequally.

The Way Forward

It is evident from the foregoing that economic activities and policies form the

main direct and underlying causes of forest biodiversity loss in East Africa. Understanding these forces, in the context of forest conservation and to use economic policies, tools and measures to address them is the starting point for sustainable forest management in the region. Extending adequate and practical economic incentives to conserve forests as a profitable resource and land use option, and dismantling the regional and national economic policies that present perverse incentives and disincentives encouraging forest degradation is much needed.

Efforts have been initiated within the region that are working towards promoting the integration of economic instruments for the reduction of biodiversity loss into the policies and strategies of sectors that depend and impact on forests in East Africa, at regional, national, and at local levels. This is

being conducted through the Economics component of the GEF Cross Border Biodiversity project being implemented by the IUCN EARO, between April 2001 - March 2003. It is envisaged that this project will develop methodologies for forest resources valuation and identify and use economic and financial incentive measures for forest biodiversity. In addition to this, the initiative aims at increasing awareness of, and capacity to use, economic methodologies among the conservation and development decision-makers, planners and practitioners at all levels. It is envisaged that these two activities will generate solid information that allow the decision-makers and planners to integrate economic instruments for the reduction of biodiversity loss into forest management strategies, policies and plans.

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Economic instruments and forest biodiversity conservation

Generally, forest and natural resource policies try to reduce environmental degradation at the lowest possible social cost. An essential means of achieving this is to somehow align private costs with social costs in such a way that “externalities” become part of decision-making. Economic instruments are receiving increased attention in many countries as a way to improve environmental quality. Especially, they form an effective low-cost way of supplementing traditional “command and control” approaches to conservation.

There is a wide array of economic instruments that have been employed and from which we could learn. The various economic instruments range from property rights systems; markets and charges; fiscal instruments; bonds and deposits; livelihood support to mention a few. However, development and application of the economic instruments in the region will require an initial analysis of the prevailing economic policies and the few, if any, economic

instruments in existence to establish where we are. Revision of these economic policies, designing innovative economic instruments will require working with all the relevant stakeholders ranging from the planners and decision-makers, forestry managers, local communities who bear more costs in forest management than they benefit from, and the major beneficiaries of the forest products and services.

In a recently held workshop on Forest Valuation in East Africa held in Arusha between April 2-4 2001, it was made clear that there are a number of actions required in order to address these economic issues in forest management. The participants highlighted the need to apply forest valuation to:

- Demonstrate the total value of forest goods and services to economic planners and decision-makers (especially through generating and disseminating real-world, policy relevant information),
- Balance forest-related economic costs and benefits,
- Better capture sustainable forest values especially through sustainable use and innovative financing mechanisms,
- Factor forest values into national economic policies and development planning
- Make conservation policy, planning and management more economically viable, profitable and sustainable (especially through the development and use of economic instruments for forest, wildlife and biodiversity conservation).

To address the above needs and concerns, the following activities will be carried out as part of the economics component of the GEF Cross border Biodiversity project:

- Building awareness about Forest valuation
- Training and capacity building in forest valuation
- Using and applying practical economic tools for forest conservation
- Disseminating policy recommendations on forest economic values
- Producing materials on forest economic valuation

Do economic instruments contribute to sustainable natural resources management?

There are very few cases where economic instruments have been either proposed or effected with the aim of improving sustainable management and conservation of natural resources. The three brief case studies demonstrate that integration of economic instruments to natural resources is feasible and actually could have a positive impact on the natural resources management efforts.

Case study 1: Downstream water levies as a means of financing the conservation of Mount Kenya forest ecosystem

In an appraisal of the Conservation and Management of Indigenous Forests (COMIFOR) project for Mount Kenya Forest Reserve it was recommended that charges should be levied on downstream hydro-power schemes and allocated to the Forest Department. Mount Kenya forms the watershed for two of Kenya’s perennial river systems, on which all the country’s major hydroelectric schemes are located. These schemes directly depend on the watershed catchment services provided by the forest. Source: Emerton, L (1998).

Case study 2: Energy taxes and subsidies as incentives for forest-saving technologies in Eritrea

Deforestation due to over-exploitation of firewood is a major problem in Eritrea. In order to encourage people to change their energy consumption patterns and consume less wood fuel the Eritrean government has implemented a series of fiscal reforms in the energy sector, including subsidies to kerosene, the promotion of energy-efficient wood fuel stoves and the dismantling of duties on imported solar technology. Source: Emerton, L., & Asrat, A., 1998.

Case study 3: Property rights as economic incentives for the local communities

Property rights are often used as economic incentives for the local communities who use biological resources or live in biodiversity areas. The allocation of community property rights in National Parks and Forest Reserves is particularly widespread. For example, in South Africa, the land upon which Richtersveld National Park lies is owned and occupied by local Nama villages. These communities have leased out the land to the government, while retaining the right to graze an agreed number of livestock in the park and to engage in the controlled harvest of certain natural resources. Lease payments are deposited into a trust that has been appointed by the community to manage this resource.

A similar system operates in reverse in a marine protected area in St. Lucia, where communities have been granted the right to manage an area that is owned by the state. Here, a collaborative management agreement has been established between government and a community institution with the capacity to manage the park. Fees raised are placed in a separate government fund, which makes quarterly payments directly to the community institution for the management of the protected area. Source: Emerton, L., 2000.