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# The Economic Value of East Africa's Forests

This is a brief introduction that will pave way to a series of subsequent Policy Briefs to be produced as outputs of the Economics Component (Project No. UNTS/RAF/008/GEF P. O. No: 93330) of the GEF/UNDP/FAO Project Reducing Biodiversity Loss at Selected Cross-Border Sites in East Africa. A series of policy briefs will be produced on an ongoing basis highlighting the progress, findings, and recommendations at regional, national, and site levels. The Cross Border Biodiversity project is a joint initiative between GEF/UNDP/FAO and the National Environment Management Authority of Uganda (NEMA), National Environmental Management Council of Tanzania (NEMC) and National Environment Secretariat of Kenya (NES). The economics component of this project is being co-ordinated by IUCN – The World Conservation Union, and aims at integrating economic instruments for the reduction of forest biodiversity loss into sectoral policies and strategies in East Africa.

## Why are we concerned about forest values?

There are strong links between economics, biodiversity conservation and the forces leading to forest biodiversity loss. Poor understanding of these linkages 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. East Africa's forests have immense value, and are essential for economically efficient and equitable growth in the region.

Both natural resource managers and economic planners and decision makers need to take cognisance of the economic potential that the forest sector represents, and understand the great economic opportunities that will be foregone if East Africa's forests are

lost. Many of the region's macroeconomic and sectoral economic policies omit forest 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 economic activities benefit from, use or degrade forest goods and services at low or zero cost. Policies in environment and natural resources sectors often also 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.

## But why are forests undervalued despite their great importance?

One of the reasons for the apparently low value of forests is that most official statistics (and many, less formal, markets and balance sheets) look only at the commercial, marketed output of timber products.

These values represent only the "tip of the iceberg". Forests yield a wide range of non-timber products, many of which are consumed only at the household level. The non-marketed value of such forest resources is immense. In Tanzania more than 95% of the people rely on fuelwood as their primary (and often only) energy source. In Kenya, forests are estimated to provide basic subsistence for more than a quarter of the population, supplying products worth more than US\$ 100 million a year.

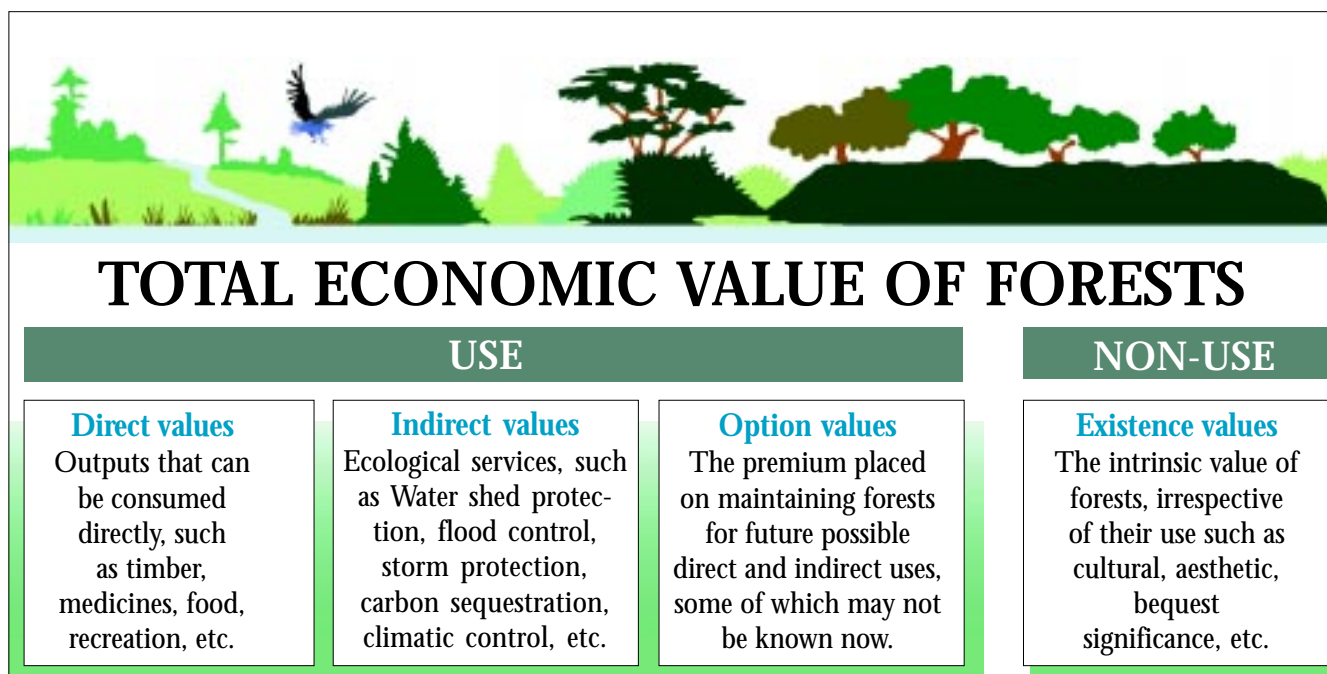
Photo: Anthony Mwangi



What are the implications of this under-valuation of Kenya's, Tanzania's and Uganda's forests? One obvious effect is the very low priority accorded to the forest sector in central budgets and resource allocations. Governments in East Africa spend, on average, less than US\$3 per hectare on managing indigenous forests — a tiny amount in comparison to their potential and actual economic importance. In addition to these management costs, other indirect costs associated with forests are usually under-estimated. Such costs include the opportunity costs to local communities of keeping land under forests, thereby precluding and/or interfering with other land and resource uses.

### What is the actual contribution of forests to the national economies of the EA countries?

For a long time the economic value of forests was grossly underestimated because it was seen only in terms of the direct, timber products they yield. In fact, forests provide a much greater range of goods and services than just their direct physical products – for example their non-timber forest products, environmental services, future benefits, and cultural values. Actually, it is important to take account of all these values when considering the economic importance of forests. The total economic value of forests can be categorised as follows<sup>1</sup>:



Adapted from Emerton, L (2001)

Recently, a workshop was convened by the Cross Border Biodiversity Project which drew together more than 30 economic and environmental sector planners from Kenya, Tanzania and Uganda to examine the issues relating to forest valuation in East Africa. Several papers on forest economic valuation were presented, which yielded interesting information and important insights on this topic.



For example, in 1999, Uganda reported that the forest sector's contribution to the GDP was 1.9%. However, including informal and non-formal marketable outputs in the conventional national accounting system demonstrates that the near 'real' contribution of forestry would be 6.1%. Although the estimate is probably highly conservative for non-monetary or non-marketable products/services, it does represent an improved appreciation of the importance of forests. This is three times higher than the conventional GDP estimates.

The loss of forest goods and services also incurs real, and quantifiable, economic costs. For example, in Uganda's Mabira forest, the total value of a 72 ha that was to be cleared to provide for electricity transmission way-leave was calculated and took into considerations of all the forest values including biodiversity, carbon sequestration, support to local livelihoods. This not only ensured that the Uganda's government was commensurately compensated for the forests goods and services lost but also has financial resources to better manage the remaining part of the forest.

In the Udzungwa Mountain National Park area in Tanzania, a recent valuation exercise demonstrated the forest ecosystem's

hydrological regulation role and contribution to the country's hydropower generation. The importance of such a valuation is that the companies benefiting from such resources despite being far-off would be willing to contribute resources in support of the conservation of the sources of their raw materials (water in this case). The point being emphasised here is that, if managers, planners, and users know the value of the contribution of the forests to their activities, they will contribute to the conservation of these resources. Otherwise they will continue assuming that these are public goods thereby maintaining the undermining of sustainable forest management that has been a norm for a long time.

### The uses of forest valuation

What is forest valuation for? Why undertake the effort and expense to value forest goods and services? Who should use the results of forest valuation and how? It is important to underscore here that forest valuation is not an end in itself but a means to achieve sustainable forest management by ensuring that forest contributions to our national economies is recognised, and the seriousness we attach to forest conservation is commensurate with this contribution. Stakeholders reaping benefits from forest resources should and must contribute to the costs related to maintenance and improvement of the current forest estate when they can afford to do so. In turn, the groups who lose out from forest conservation (for example the local communities who must limit their use of forest species and land) or who bear its management costs (for example private landholders, NGOs and government Forest Departments) must gain real and tangible benefits.

Providing innovative financing mechanisms for forest conservation is crucial. This means going far beyond the traditional funding sources of central government funds and donor projects, which rarely generate sufficient income to cover the direct and indirect costs of forest conservation. It also means providing economic incentives for landholders, producers and consumers to conserve forests – after all, why should they conserve forests unless it is in their economic interest to do so?

An important starting point for all of this is to work to integrate forest values into policies, both economic and environmental. The findings from forest valuation exercises should be used to inform and influence relevant policies. For this to succeed, a close working relationship between the economic planners and natural resources managers is crucial. Economic planners and decision-makers need to appreciate that forests contribute immensely to the economy (far beyond traditional estimates of forestry contributions to national income), and the costs of forest degradation to the economies will be high unless we act now. On the other hand, natural resource managers need to re-orient their thinking and integrate economic concerns in natural resources policies.

Many a times governments propose certain changes in forestland use that are in variance with appropriate forest management regime. Such changes might negatively influence the flow of resources and available information on the benefits we stand to lose or the costs that we are likely to incur should be avoided to



Photo: F. Karanja - IUCN.

the fore for purposes of influencing the decision-making processes. Take for example the case of Mount Kenya forest ecosystem presence of which, saved Kenya's economy more than US\$ 20 million through protecting the catchment for two of the country's main river systems, the Tana and the Ewaso Ngiro. Uganda's forests, through sequestering carbon, help to offset the effects of global warming, generating global benefits of nearly US\$4 million a year in terms of damage avoided<sup>2</sup>.

### Charting the way forward

Recognition of the role that forest sector contributes to national economies is slowly coming onto the agenda of both natural resources and economic planners and decision-makers in Uganda, Tanzania and Kenya. 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 economic disincentives that encourage forest biodiversity degradation are removed, and

replaced with positive economic incentives for conservation.

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.

The GEF Cross Border Biodiversity project is working with the national environmental agencies in Kenya, Uganda and Tanzania to address issues of biodiversity loss from a regional, national and local perspective. This includes work at the cross-border sites of Bukoba-Rakai (TZ/UG), Taita-Same (KE/TZ), Moroto-Turkana (UG/KE) and Monduli-Kajiado (TZ/KE) Districts. It is against this background that IUCN - The World Conservation Union is working with the Cross Border Project and its partners to promote the use of economic instruments for forest conservation in East Africa, at regional, national, and at local levels.

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 conservation and development decision-makers, planners and practitioners at all levels. The project will hold a series of workshops, training courses and real-world valuation exercises in the region. It will also produce and disseminate a number of publications, training manuals and policy briefs. These activities aim to generate practical and policy-relevant real-world information that will allow East Africa's 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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1. Emerton, L. (2001): Valuing Forest Resources in EastAfrica. Report of the Workshop, 2nd - 4th April 2001, Arusha, Tanzania. IUCN - The World Conservation Union, Eastern Africa Regional Office, Nairobi, 9pp.

2. Hezron Mogaka, Gacheke Simons, Jane Turpie, Lucy Emerton and Francis Karanja (2001): Economic Aspects of Community Involvement in Sustainable Forest Management in Eastern and Southern Africa. Forest and Social Perspectives in Conservation No. 8, IUCN - The World Conservation Union, Eastern Africa Regional Office, Nairobi, Kenya, iv + 151pp.