Why Forest Values are Important to East Africa

Lucy Emerton

The economic importance of East Africa's forests is grossly under-estimated by many planners, policy-makers and resource managers. 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 forest 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 per cent of the population rely on fuelwood as their primary (and often only) sources of energy. 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.

Forests also indirectly support and protect a wide range of production and consumption processes. Much human settlement and economic activities would be impossible (or very costly) without the services forests provide. Recent studies calculated that the presence of Mount Kenya forest, alone, 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.

Forests in East Africa also support a wide range of other less tangible, although equally important, economic values. There is a high economic premium attached to maintaining forests for future possible uses. Tanzania, for example, has entered into biodiversity prospecting concession arrangements with the US National Cancer Institute regarding the search for naturally occurring biochemical compounds with commercial values. Although extremely difficult to quantify, forests also have an intrinsic alternative values, regardless of actual use — their cultural, spiritual and heritage values, for example.

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.

As well as these direct management costs, the indirect costs associated with forests are also under-estimated and under-funded. Perhaps the largest economic outlays associated with East Africa's forests are their opportunity costs. Keeping land under forest cover precludes or interferes with other land and resource use opportunities (such as agriculture). These costs are huge. If turned over to crops, Uganda's forest reserves could generate income of more than US$ 100 million a year — at least in the short-term. Around Mount Kenya, forest-dwelling animals caused farm damage to the tune of nearly $1 million in 1998.

It is local communities who bear the brunt of these costs (while other, off-site populations, tourists, city-dwellers and industries often get the bulk of the benefits from forest goods and services for free or for very low prices). At the same time, government forest departments, wildlife services and environment ministries also find it difficult to raise enough funds to adequately manage forests.

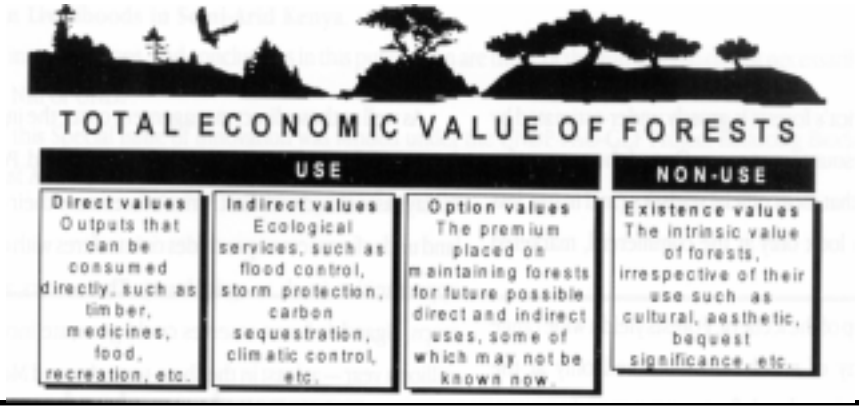
This situation is clearly inequitable. It also presents confusing economic signals about the worth of forests, and gives people few incentives to conserve forests, to limit their consumption of forest resources to sustainable levels, to halt forest clearance for seemingly more profitable land uses, or to implement developments in ways that do not harm forests.

Simultaneously, the low perceived value of forests is also reflected in a series of economic policies and strategies that usually ignore forests (at the best), consider it a right to benefit from forest goods and services for free (almost always), and sometimes even actively contribute to forest degradation (at the worst). Take, for instance, the long history in the region of agricultural subsidies, which have had devastating impacts on forest cover and land use. At the same time, economic policy attention has rarely focused on promoting sustainable forest uses, enterprises and technologies or on providing low-cost alternatives to forest-degrading activities.

Still, forests remain one of East Africa's most under-valued resources. And as long as planners and policy makers continue to disregard this economic importance — within the forest sector, as well as in all those sectors and activities that depend or impact on them — forests will continue to be degraded and lost, and potentially vast economic opportunities (and necessities) will be lost in Kenya, Tanzania and Uganda.

Box 1: The Total Economic Value of Forests

Traditionally, many economic planners have seen the value of forests as lying only in the commercial or industrial use of timber products (and most estimates of national income only look at these values when they calculate the contribution of the forest sector to GDP). As the figure below illustrates, this income only represents a tiny proportion of the total economic value of forests. Most economists now agree that forests are worth far more than this – that their value also includes other, non-timber, direct uses, as well as ecosystem services, option and existence values. Slowly, the full economic importance of forests is starting to be accurately conceptualized and represented.



BOX 2: WHAT ARE KENYA'S FORESTS WORTH?

Several years ago a study was carried out to review our state of knowledge on the economic value of Kenya's environmental resources, and on the consequent economic costs of environmental degradation to Kenya (Emerton, L., Ndugire, N. and Bokea, C., 1998, *The Costs of Environmental Degradation to the Kenyan Economy: A Review of the Literature*, Policy Research Group, Nairobi). The table below, which is adapted from this report, presents estimates of forest values which are drawn from a number of sources, including government statistics. Most refer to the period 1992-1997, and are expressed in 1996 prices:

THE ECONOMIC BENEFITS OF KENYA'S FORESTS	
To the national economy:	
Contribution to GDP	US$ 4 million per year
Foreign exchange earnings	US$ 0.22 million per year
For forest-adjacent households:	
Kenya indigenous forests	US$ 94 million per year
Aberdares forest	US$ 165/hold/year
Arabuko Sokoke forest	US$ 135/hold/year
Kakamega forest	US$ 160/hold/year
Mau forest	US$ 350/hold/year
Mount Kenya forest	US$ 212/hold/year
Oldonyo Orok forest	US$ 100/hold/year
To commercial and industrial firms:	
Formal sector industry	US$ 2 million per year
Indigenous timber, Kenya	US$ 7.3 million per year
Indigenous timber, Kakamega forest	US$ 1.2 million per year
Indigenous timber, Mau and Trans Mara forests	US$ 0.3 million per year
To tourists:	
Forests in National Parks and Reserves	US$ 34.7 million per year
Mount Kenya forest	US$ 0.3 million per year
Watershed catchment protection values:	
South West Mau, Ol Pusimoru, Trans Mara	US$ 0.12 million per year
Mount Kenya	US$ 20.4 million per year
Aberdares	US$ 7.4 million per year
Mount Elgon	US$ 3.7 million per year
Nandi	US$ 1.6 million per year
Cherangani	US$ 0.4 million per year
Loita Hills	US$ 2.1 million per year
Agroforestry values:	
Fuelwood and crop productivity	US$ 330/ha/year
Fuelwood	US$ 0.60/ha/year
Timber	US$ 23/ha/year
Saved chemical inputs	US$ 9/ha/year
Dairy	US$ 144/cow/year
THE ECONOMIC COSTS OF KENYA'S FORESTS	
To the Forest Department:	
Development and recurrent expenditure	US$ 1.2 million per year
To local households:	
Animal damage around Shimba Hills National Park	US$ 0.45 million per year
Animal damage around Mount Kenya Forest	US$ 1.04 million per year
Opportunity costs of agriculture foregone, all Kenya's forests	US$ 307 million per year
Opportunity costs of agriculture foregone, Mount Kenya forest	US$ 72 million per year