



# Forest Livelihood Briefs

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## THE WEALTH OF THE DRY FORESTS

Can Sound Forest Management Contribute to the Millennium Development Goals in Sub-Saharan Africa?

### Dry forests in Africa

Dry forests in Sub-Saharan Africa (SSA) cover approximately 43% of the continent. They are inhabited by nearly 236 million people, many of these the poorest in the world.

- In South Africa 70% of rural households can be classified as poor, while 18-24% are considered to be chronically poor. This is the poverty situation in southern Africa's richest country!

A majority of the population of these regions is dependent on traditional energy sources (i.e., firewood, charcoal and organic wastes), subsistence farming, generally free-ranging livestock, and products harvested from the dry forests.



Distribution of dry forests in sub-Saharan Africa (Chidumayo 2004)

Growing pressure on dry forest resources to meet human and socio-economic development needs mean that dry forests are increasingly being utilised unsustainably. Continued degradation of dry forests poses serious problems for a large number of people, especially poorer people who depend on these forests for their livelihoods.

In the past, dry forests have been seriously undervalued and much attention has instead been directed towards management of tropical humid forests and their biodiversity. Recently, a number of studies indicate that dry forests can play a critical role in helping mitigate affects of extreme poverty in SSA (Campbell *et al.* 2002; Shackleton and Shackleton 2004) – yet in many countries their contribution is still ignored in terms of national policy and forest management. Many African governments do not take dry forests seriously and/or fail to make the link between degradation of dry forests and increasing poverty. Continued degradation of forests and increasing poverty in these regions points to the need to focus much more attention on dry forest management than

in the past. In doing this we need to explore some important questions, such as:

- What type of benefits can dry forests provide and who do they benefit?
- Can these benefits help address the Millennium Development Goals?
- How can forest management be improved to help maximise these benefits?

In September 2000 leaders from around the world gathered to adopt a UN Millennium Declaration. In this declaration countries committed to a new global partnership designed to reduce extreme poverty by 2015 - by addressing a series of eight Millennium Development Goals (MDGs). The MDGs are highly relevant to forestry in SSA given that it is in dry forest countries that poverty is most prevalent.

### Benefits that dry forests can provide

Timber products and non-timber forest products (NTFPs) from dry forests provide a range of indirect and direct benefits to local people. For millions of poor households in these regions, access to a degree of 'freely' available resources for subsistence and income often offers the only option for survival (Shackleton 2006). Many of these benefits have strong linkages with the MDGs. With improvements to forestry, policy, institutional support and

macro-economic interventions relating to forests, there is potential for poverty alleviation in SSA. Some of the current and potential contributions that dry forests can provide - with sound management - are described below.

### Health, food and nutrition

Dry forests provide a variety of foods (from bushmeat to fruits and mushrooms) for human nutritional requirements, and numerous medicines to prevent and cure illness. Forests can also provide cash income and food for households, and have been shown to be especially important as a safety net for those affected by illness, who have no other income opportunities available. For example children from HIV/AIDS affected households collect foods from forest to feed themselves and their families.

- 80% of the population of Mozambique uses bushmeat and fish as their principal source of animal protein (Saastamoinen 2003).
- More than 80% of the population of Burkina Faso relies on traditional medical treatments for common illnesses (Wittig *et al.* 2005).

### Capacity building, education & empowerment of local people

Forestry texts have been used in literacy campaigns in other parts of the world. For example in Brazil a 'fruit book' was created to help raise awareness (and action) among local Amazonian communities - through a series of pictures with simple language - of the high value of their trees for food and other products compared to their value for timber alone (Shanley and Medina 2004). Although women are well aware of these values, the 'fruit book' helps them to promote the importance of non-timber forest products (NTFPs), where there is threat of indiscriminate harvest for timber. The inter-connectivity of people and woodlands in Africa points to great potential for drawing and building on similar tools and ideas for involving communities in promoting sound management of their dry forests.

Women play a very important role in many aspects of woodland use and management. Therefore, through institutional support and empowerment built into forestry approaches, woodlands could provide a valuable entry point for building greater capacity amongst women.

- Women make up about 70% of the people involved in the charcoal trade (Coral action 1999).
- We can learn from the pro-women activities with non timber forest products in Central Africa, where targeted training with women traders of forest products increased their income sizeably (Ndoye 2005).

### Domestic material goods and energy

Materials for housing and other shelter, as well as tools and fuel – all come predominantly from dry forests over much of SSA. Access to these materials allows people to improve their

conditions of hygiene and protection from rain and heat, pests and predators. Woodfuel allows the cooking of food, and can help to sanitise clothes, water and health implements. Access to these basic components of livelihood - taken for granted by much of the world - can dramatically improve levels of health and well-being in SSA.

- Wood provides more than 80% of Mozambique's energy demands (Saastamoinen 2003).
- Charcoal production in Zambia contributes about 2.3 % to GDP (Hibajene *et al.* 1993)

### Trade and economic activity

Timber and NTFPs provide people with cash income, employment and trade, and the ability to store and process food products. There is a growing number of forest-based enterprises based on resources from the dry forests. Some home-based industries can be crucial for HIV/AIDS inflicted households. For instance, some forest based home industries can support grand-parents forced to look after grand-children who were left destitute after the death of their parents.

- A study in eastern Tanzania's dry miombo forests showed rural households derived more than 50% of their cash income from sale of forest products such as charcoal, honey, wild fruits and fuelwood , while peri-urban households derived almost 70% of their income from the woodlands (Chaposa 2002) .
- In Malawi it is estimated that the honey sector generates about US\$ 1.7 million each year from sales of honey and beeswax, and employs about 2 million rural people (Mwakatobe and Mlingwa 2005)



Photo by Daniel Tiveau

### Ecosystem services

Forests provide essential ecosystem services that are important for people's subsistence, agricultural and trade activities. Services from these forests include maintenance of soil fertility, watershed (flow stability) functions, and carbon dioxide (CO<sub>2</sub>) sequestration. Ecosystem services play important roles in peoples' lives - such as provision of water for human

**Benefits of sound management of (dry) forests and their contributions towards the MDGs**

Benefits of sound forest management →	Health and nutrition	Trade and economic activity	Education, capacity building & empowerment	Domestic material goods and energy	Ecosystem services
↓ Millennium Development Goals					
1. Eradicate extreme hunger & poverty					
2. Achieve universal primary education					
3. Promote gender equality & empower women					
4. Reduce child mortality					
5. Improve maternal health					
6. Combat HIV/AIDS, Malaria & other diseases					
7. Ensure Environmental Sustainability					
8. Develop a Global Partnership for Development					

(shaded boxes represent more direct contributions than un-shaded boxes; darker shading represents larger contributions than lighter shading)

**‘Children’s foods’: The role of wild edible foods in reducing childhood vulnerability to HIV/AIDS aggravated food and nutrition insecurity in central Kwazulu-Natal (by Sarah Kaschula, from Shackleton 2006)**

When asked to account for how they cope with food shortages, a group of AIDS orphans stated simply: *“When we are hungry, we go out and play.”* This association between children’s play and food security may not at first be obvious, but many wild edible foods have been referred to as ‘children’s foods’ (Barany *et al.* 2005), and it seems they may be increasingly important for children, orphans and vulnerable groups within the context of heightened HIV/AIDS food and nutrition insecurity. This position was supported by research carried out among children in a rural area in central KwaZulu- Natal, South Africa. Among a sample of vulnerable children, birds, rodents, wild fruits and tubers were key sources of food - especially for boys - who commonly spent prolonged periods of time away from the home, playing, hunting and foraging for food. As Simo\*, an orphaned nine year old boy living with his grandparents, noted: *“We get worried when there is no food in the house, and we cope sometimes by just drinking water and sleep, or we go and ask neighbours for help. Then we go and hunt and shoot birds. We look to the trees and if the trees are bare, we rip potatoes off the mountain from the ground and roast them in our fires”.* Maternal orphan Xolane\* (11 years old) explains: *“If we feel like we want to eat meat, we just go out into the forests because we are craving. We are familiar with these areas, so we have no problem going there.”* For hungry, often socially alienated orphans, hunting birds, foraging for food and trapping animals is not only an important coping strategy for dealing with food insecurity, but is also a fun and sociable peer activity. As a result, birds and small mammals are frequently eaten with a regularity that even rivals the consumption of more conventional staples.

\* Pseudonyms

and animal sustenance and irrigation of crops, and habitat for wildlife protein foods. Sustainable forest management is needed to ensure long term benefits to the environment and consequently water and food security and hence poverty alleviation.

**What needs to be done?**

It is clear that dry forests play major roles in supporting millions of people, and especially people in extreme poverty. Many of the contributions of dry forests are related directly or indirectly to the MDGs. It seems vital that this significance of dry forests is acknowledged by all SSA countries, and is taken into account through major improvements in forest management, institutional support and policy designed specifically for these areas. Sound management and support for dry forests would ensure that poor people can continue using dry forests for their livelihood needs - and especially as safety nets in response to shocks and pressures such as

impacts of HIV/AIDS, drought and climate change (Anderson *et al.* 2004). Afforded proper attention, dry forests can allow some families to lift themselves out of poverty, for example through development of sustainable enterprises such as honey (Mickels-Kokwe 2006).

Continued degradation of dry forests would mean many people are likely to fall further into poverty. Sustainable management and improvement of the contributions of dry forests will be a difficult and complex task, requiring an integrated and multi-sectoral approach with different yet complementary activities at multiple levels.

Some recommendations for actions to help address degradation of dry forests can be made. We believe that adoption of such actions could greatly assist in achieving the MDGs within SSA. Note that these actions are highly interconnected, although they are categorised below simply into four sections.

**(i) Documenting and advocating people's reliance on dry forests**

- The major contributions of dry forests to livelihoods of the poor should be identified, quantified and promoted.
- The potential for cultivation of important wild food and medicinal plants should be explored, and their nutritional value enhanced - through post harvest treatment, storage, and preparation.

**(ii) Improvement of policy and incentive systems**

- Extra-sectoral policies related to dry forests should be reviewed, including urban, land and energy policies, and provision of targeted subsidies that can make cash sale of forest products and use of alternative urban household energy sources more attractive.
- Ineffective national and district-level regulations related to woodlands, grazing areas and forest markets should be removed and replaced with policies based on sound management principles, empowering local leaders and stimulating markets.

**(iii) Improvement of institutional, economic and market support.**

- Institutional support needs to be provided for the commercialisation of forest products, including micro-credit, training and the development of value added products, to assist local producers to expand their trading activities.
- Collaboration among various sectors needs facilitation to build a multi-sectoral approach to assisting poor households to cope, that deals with health, education, food security and income generation.
- Engagement and empowerment of local institutions and forest users needs to be promoted to take on management and entrepreneurial responsibilities. Policy information and practices need to be transparent and understandable.

**(iv) Implementation of more sustainable forest management**

- Appropriate Sustainable Joint Forest Management and Community Management Approaches (with sharing of responsibilities, benefits and costs) should be developed and implemented.

**Endnotes**

This brief was prepared by Lisa Petheram, Bruce Campbell, Crispen Marunda, Daniel Tiveau, Sheona Shackleton.

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