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Trees, poverty and targets

Forests and the Millennium Development Goals:

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KEY MESSAGES:

- Human well-being depends on ecosystem services such as those provided by forests. These services are the foundation for the Millennium Development Goals – but they are not yet treated as such.
- It is remarkable how many recycled assumptions, and how little hard facts, there are about the importance of forests to human well-being. And whilst forestry can deliver much for poverty reduction and development, often it does not.
- Evidence presented here shows how forest resources contribute to poverty mitigation – serving as subsistence 'safety nets' or low income 'gap fillers', and poverty reduction – helping lift households out of poverty by increasing assets, services, civil and political rights, voice and the rule of law.
- Such contributions call for greater recognition of the value of sustainably managed forests (as well as biodiversity and tree-based assets in farms and urban areas) in national statistics and accounting, and in investment and development decision making.
- Forests are set to return to world attention in discussions on climate change, biofuels and the economic rise and resource needs of nations such as Brazil, China, India and Russia - all political minefields that need to be negotiated with trees and people in mind.
- Governance frameworks, instruments and capacities need to be shaped to encourage investment in the pro-poor productivity of forest assets.

Where are the forests in the MDGs?

When players in the forestry world get together they are good at setting goals. They are a good match for the political leaders that gave us the Millennium Development Goals (MDGs). Since the 1980s there has been a proliferation of international dialogues dealing with forests and, a bit like the football World Cup, every four years or so they come up with a feast of goals. If forestry goals were all we needed to make progress, then sustainable and pro-poor forestry would have long since become a worldwide reality. Of course, implementation still lags well behind aspiration, but at least there is now a considerable body of international knowledge and agreement on how forests can contribute to development.

There has never been anything quite like the MDGs before. The eight goals and their associated targets were developed from the Millennium Declaration adopted by the United Nations General Assembly (http://www.un.org/millenniumgoals/) and form one of the boldest international commitments ever made. Many local groups and social movements see the high profile of the MDGs as a crucial lever with which they can call their governments to account. Now the clock is ticking – there are eight years to go until the MDG target date, 2015, and dramatic action will be needed to achieve them.

In 2006, the combined UN agencies took stock of progress towards the MDGs. They estimated that some of the targets were within sight but with the halfway mark to 2015 approaching, many are not. In particular, the overarching goal to eradicate extreme poverty and hunger (MDG1) is looking increasingly like a pipe dream, as is the goal to ensure environmental sustainability (MDG7). But the heads of state at the

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2005 World Summit had already reaffirmed their commitment to the MDGs and declared *"We underline the need for urgent action on all sides, including more ambitious national development strategies and efforts backed by increased international support"*.

But where are the forests and trees in the MDGs? There is no sign of them in the eight goals, nor in the 18 targets. Target 9 comes close to giving forests a mention: *'Integrate the principles of sustainable development into country policies and programmes; and reverse the loss of environmental resources'*. But only in one indicator for Target 9 (Indicator 25 out of 48 in total) does a small spotlight shine on forests: *"proportion of land area covered by forest (FAO)"*. Yet unlike the other MDG targets, Target 9 has neither a quantitative measure, nor a target date, and Indicator 25 is about the physical area of forests, it says nothing about their quality, the goods and services they provide, and the capacities and governance systems that most reliably ensure their management for poverty reduction.

It may be clear in the world of forestry that all life on Earth, and thus people's well-being, depends on ecosystem services like those provided by forests, that MDG7 must therefore be understood as a foundation for all other MDGs, and that the MDGs form an integrated set demanding integrated responses. But this is poorly recognised in the wider world, as shown by the country reports to the UN on progress towards the MDGs: less than 5% of countries report that they will achieve environmental sustainability by 2015; some countries barely report on MDG7 at all; and those that do invariably give little attention to the environmental aspects of the other MDGs (Poverty and Environment Partnership, 2005).

This seems to confirm the fears of many that foresters have been spending far too much time and money talking to each other, and have not made enough effort to understand and influence macro-planners and economists, health professionals and educationalists, governance gurus and political strategists. The forest world needs to shoulder at least part of the blame for its failure to be recognised.

How can forests contribute to the MDGs?

There are good reasons why those concerned with poverty reduction are wary of forests. Forest resources have become infamous as a 'resource curse' in some contexts, and as a 'poverty trap' in others. The sector has been a political minefield for donors and institutions such as the World Bank. Some consider it best left well alone. But this contention is often precisely because of forests' acute relevance – their critical role, for good or bad, in people's livelihoods, health, security and economic growth.

Two main outcomes for poor households seem to be possible from the use of forest resources: 1) poverty avoidance or mitigation – in which forest resources serve as subsistence 'safety nets' (to fall back on in lean times or when crops fail) or low income 'gap fillers' (to make a little cash from a few products managed or cultivated as a side-line); and 2) poverty reduction – in which forest resources help lift the household out of poverty by functioning as a source of permanent increases in income, assets, services, civil and political rights, voice and the rule of law.

Considerable emphasis in analysis and dialogue has rightly been put on the safety net functions of forests in poor peoples' lives – and on what forms of management and control of forest resources are appropriate for this. Much less emphasis has been put on the prospects for pulling people out of poverty – and the attention that has been given has tended to focus on the potential of non-timber forest products (and, more recently to a lesser extent, on environmental services). Little evidence has yet been marshalled for direct or economy-wide poverty reduction from commercial timber production (Mayers, 2006).

What is the evidence?

It is remarkable how many recycled assumptions and how few hard facts there are about the importance of forests to poverty reduction and development. This paper is one small contribution to rectifying this – but further evidence should always be sought from the forests or the people in question. What follows below is an attempt to draw out some of the key evidence relating to each of the MDGs.

Eradicate extreme poverty and hunger (MDG 1). The overarching goal of the MDGs lies in the fight against poverty. Many millions of people use forest and woodland resources to sustain livelihoods, or as a basis for risk mitigation and to meet contingent needs (Kaimowitz, 2007).

- In **Tanzania**, amongst the 833 villages (approximately 2.2 million people) of Shinyanga region, the value of **restored woodlands** to rural people's livelihood is US$14 per person per month (or about US$1,200 per household per year), which is significantly higher than the national average monthly spending per person in rural Tanzania of US$8.50 (Barrow *et al*, 2007).

- In **Lao PDR**, 3,600 households (approximately 24,000 people) in 160 villages, bordering the Nam Et-Phou Loei Protected Area, use **forest assets** to the value of US$229 for subsistence, and US$84 in cash income, per household per year. These assets support 44% of subsistence needs, 55% of cash needs and account for 46% of the total household economy (Barrow *et al*, 2007).

- In **South Africa**, a **charcoal** producing company in Kwa-Zulu Natal, Black Gold, is 10% owned by Mondi the large timber and paper company, 60% by local entrepreneurs, and 30% by a trust owned by a previously disadvantaged community. It has 10 kiln sites using timber waste from Mondi's plantations. The charcoal is sold to an intermediary which in turn supplies an international market that includes the supermarket chain Tesco. This low-environmental impact business has created jobs (80% of the workforce are women) and enhanced entrepreneurial capacity (Wilson, 2007).

- In **Cameroon**, harvesting ***Prunus africana*** bark is a lucrative activity around Mount Cameroon. Nine villages have set up the Mount Cameroon Prunus Management Common Initiative Group to develop the resource sustainably. The average monthly income for each group member from *Prunus* bark is US$67. Members have used their income to: send children to school (71%), build houses/toilets (51%), buy food/medicine (40%), buy a radio/TV/ cell phone (41%) and buy clothes (8%) (Chupezi *et al*, 2007).

- In **Ethiopia**, smallholders in Amhara Region who grow **eucalyptus** have become self-sufficient in fuel and construction wood and they derive about 26% of total family income and an important source of savings and security from the trees. Labour input is low compared to growing crops (Asnake, 2007).

- In **Indonesia**, there is an increasing call for the government to throw its weight behind **small-scale fast-wood forestry** where environmental and social conditions are right. It is estimated that the equivalent of one full-time job is created for every 3.5 hectares of land planted with fast-growing species such as *Acacia mangium* and this provides a net present value profit of US$4.5 per day over eight years (Purnomo, 2007).

- In **Nigeria**, a study of 180 **peri-urban households** in the state of Abia, showed that 31% were involved in **multi-storey home gardening**, to ensure family food security, provide different fruits all season long, maintain soil fertility and generate additional income (Gauthier, 2007).

Other examples stem from reviews of the types of forestry activity that have received most attention over the past couple of decades: development of non-timber forest products; participatory forest management; small-medium forestry enterprises; and industrial scale commercial forestry.

- **Non-timber forest products** can play an important role in gap filling for the rural poor, and under certain conditions can provide a stepping-stone out of poverty. International review work reveals a critical combination of factors required to create such stepping stones in: the enabling environment, product characteristics, market conditions, sustainable use and household capacity to engage in different activities (Marshall and Schreckenberg, 2007; Pinto and May, 2007).

- **Participatory forest management** (PFM) has been supported initially for conservation reasons and more recently on the assumption that it reduces poverty. But solid evidence of its impacts is weak. New work shows the differences between newly established and more mature PFM programmes. In some Nepali communities, community forests host valuable enterprises, and user groups manage activities benefiting the poorest people. But in some new PFM approaches in Kenya and Tanzania, communities are expected to invest a great deal of unpaid labour in 'their' forests for little gain (Schreckenberg and Luttrell, 2007).

- Timber is often out of poor people's reach but new international review work shows that **small-medium forestry enterprises** (SMFEs) represent some 80-90% of forestry enterprise in many countries and more than 50% of forestry employment in many. One estimate puts the value added of SMFEs worldwide at more than US$130 billion per year. Where the rights and policy framework is favourable, evidence is growing that

small and medium forestry enterprises can reduce poverty (Macqueen, 2007; Stoian and Donovan, 2007).

- **Industrial scale commercial forestry jobs and income** have at best avoided exacerbating poverty – evidence that they have reduced poverty is scarce. However, some see prospects for the social standards in industrial-scale sustainable forest management bringing major potential for poverty reduction and leading other sectors in sustainable development (Street, 2007; Pacheco, 2007).

Achieve universal primary education, promote gender equality and empower women (MDG 2 and 3). Use of forest resources incurs costs as well as benefits. Children and women who have to search far and wide for fuelwood, have less time for school or redressing gender inequities. Thus the efficiency of forest management is important if people are to be liberated from production burdens. Furthermore, efficiently managed forest assets can help build schools, cover school fees and provide access to clean water and fruit - all of which help to strengthen children and women. New international review work shows how forestry, within a broader framework of sustainable natural resources management, can provide the means to tackle the interrelated areas of schooling, health, poverty and nutrition in rural areas (Taylor, 2007).

- In **Tanzania's** Shinyanga region, **the sale of forest products to pay education fees** averages about US$23 per household per year, amounting to an annual regional total of approximately US$8.5 million. Woodland restoration has also reduced the time taken to collect fuelwood by up to four hours and has **freed up women's time** to engage in activities that empower and improve gender equity (Barrow *et al*, 2007).

- In eastern **Nepal**, over the past 10 years community **forest user groups** have re-invested US$327,000 generated by the sustainable use of forests into schools, literacy programmes for women and the poor, and grants for needy pupils (Thies and von Pfeill, 2007).

Reduce child mortality, improve maternal health, and combat HIV/AIDS, malaria and other diseases (MDG 4, 5, and 6). Forests can provide a wide range of health benefits. Medicinal plants can be vital where formal health care systems are too distant or costly to access and can often generate income. Restoring woodlands can reduce the time spent collecting water, fuel and food – enabling mothers to spend more quality time with their children and face less hardship during pregnancy. Clean and easily available water, often associated with forests, can reduce the incidence of water-borne diseases. Conversely, disease burdens often rise when forest is degraded. Forest people are badly affected by disease because their remote locations make public health facilities inaccessible and because national health systems tend not to prioritise them, due to the higher costs for fewer people. Industrial-scale logging operations are often closely linked to the spread of HIV/AIDS and malaria. The development of new habitats in which diseases and vectors flourish and the introduction of new animals, as well as the mixing of indigenous people with migrants, all make a potent mixture for exacerbating diseases (Colfer *et al*, 2007; Counsell, 2007).

- In **Tanzania**, improvements in **health from restored woodland** are impressive. 10-30% of households in Shinyanga region note an improved availability and quality of water in the dry season. The value of this water was estimated to be between US$2 and US$50 per household per year and that of medicinal plants sourced in the forest is up to US$36.3 million for the region as a whole (Barrow *et al*, 2007).

- **Foods from tropical forests** are extremely important in many contexts. New international review work confirms that they often supply vital **nutrients** to forest communities and sometimes serve as life-saving safety nets during seasonal shortfalls and crises (wars, severe droughts, floods, etc.) (Colfer *et al*, 2007).

- In **India**, which reportedly harvests 90% of its medicinal plants from uncultivated sources, there are an estimated 9,000 manufacturing units with an annual domestic market valued at almost US$1 billion. Manufacturers of **plant-derived pharmaceuticals** have entered into contracts with local communities for large volume production of certain species, e.g. groups of rural cultivators and collectors are eligible to buy shares and supply direct to the Gram Mooligai Company Ltd (Bodeker, 2007).

- In **China**, the Ministry of Agriculture is promoting the cultivation of high demand medicinal plant species. Over 300,000 hectares are now under cultivation with **sea buckthorn** (*Hippophae rhamnoides*) alone employing 10,000 people and generating over US$40 million annually (Bodeker, 2007).

- Popular compounds from **plants with medicinal value** include cola, caffeine, chocolate, chilli pepper and cocaine. In the absence of 'modern' alternatives, systems of traditional healing are thriving. In many areas, however, medicinal plants are threatened by commercialisation and global markets, loss of traditional mechanisms and competing uses of the same species (Colfer *et al*, 2007).

- In the **USA**, the Urban Ecosystem Analysis of the Washington DC metropolitan area concluded that tree cover had reduced **storm water storage** costs by US$4.7 billion and generated annual air quality savings of US$49.8 million (Gauthier, 2007).

- In **China**, strategic **urban forestry** plans anticipate that 70 percent of China's cities will have 45 percent of tree and forest cover by the year 2050. Today, several Chinese cities, e.g. Changchun, Nanjing and Guangzhou, have a forest cover of more than 40 percent. Different cities emphasise different forest functions, but all prioritise urban forestry's ability to retain dust and absorb SO2, NO2 and other pollutants (Gauthier, 2007).

Ensure environmental sustainability and develop a global partnership for development (MDG 7 and 8). Policy that fails to deal with the complex relationship between forest conservation and poverty reduction through forestry risks failure. Poor people depend more on forest assets than the non-poor, and yet they find these assets both difficult to access and increasingly degraded. Elites are able to capture forest benefits, often whilst degrading the resource. Partnerships need to be at the heart of attempts to tackle these issues.

- In eastern **Nepal, forest user groups** have managed some 20% of the forests. Forest cover and quality has improved significantly, compared to state owned forests not managed by communities. Plant and animal biodiversity in community forests has risen again. In three districts, 62,000 households have taken part in the 350 forest user groups linked to the 309 community forests covering 54,000 hectares. Nationally, the Federation of Community Forest User Groups of Nepal, representing 14,000 user groups has become an important political player (Liss and Thies, 2007).

- **The International Model Forest Network** is a voluntary partnership approach to bringing about sustainable development over large landscapes. Whilst only a few of the 40 model forests to date are in developing countries, they show much promise in delivering some of the MDGs because they are explicitly long-term processes that tackle the social aspects of sustainability (Bonnell *et al*, 2007).

- In the **Congo Basin** a partnership of agencies is working with a decision-guiding tool to model synergies and trade-offs between conservation and development in the Tri-National de la Sangha landscape (of over 4 million hectares) spread over three nations: Cameroon, Central African Republic and the Republic of Congo (Sayer *et al*, 2007).

- In **Africa and Asia, fuelwood** is particularly vital as a source of energy. The number of people using fuelwood and other biomass fuel in Africa is estimated to grow by 40% to 700 million by 2030, and there will still be about 1.7 billion users in Asia. Whilst in most regions there is no fuelwood crisis requiring major interventions devoted solely to the provision of fuelwood, its importance for poverty reduction and environmental stability demands major new partnerships (Arnold, 2007).

- **Forest-based associations** can play a key role in poverty reduction according to new international review work in China, Brazil, Guyana, India, South Africa and Uganda. For example, there are 2,000-3,000 active forest-based associations in Uganda alone. Some fail, but many succeed and are particularly effective where support improves information flows, e.g. on bureaucratic procedures, product design, markets, finance and technological innovation (Macqueen, 2007).

How can forestry's protagonists do better?

Better information. This evidence helps demonstrate the significant contribution that forests can make. It calls for greater recognition of the value of sustainably managed forests. The value of forests, biodiversity and tree-based assets is hugely underestimated in national statistics and accounting and largely un-recognised in investment and development decision making. We need comparative information too – to be able to tell when forestry or another investment will do better for poverty reduction and sustainability. So we need yet better evidence, better used.

Better integration. Knowing that forestry can contribute to many aspects of poverty reduction, and be a cost-effective way of achieving the MDGs, is not

enough. Whilst forestry can deliver, often it does not. How can the role of forests be better recognised by those primarily concerned with health, education, child mortality and gender? How can forest-linked priorities be better integrated in poverty reduction strategies, other macro planning frameworks and investment decisions? Practical answers to these questions will be context specific and are likely to be held by local institutions dealing with local livelihoods and capable of wielding good research findings in national policy processes.

Better tactics. After several years of dwindling world attention, forests are now set to return to 'flavour of the month' status. Climate change discussions will bring incentives for 'avoided deforestation' to the serious negotiations stage. Biofuels and other energy issues linked to forest and land use will be the focus of increasing attention. The continuing economic rise and resource needs of middle-income nations – notably Brazil, China, India and Russia – bring many new issues to the fore. The MDGs are silent on these dynamics and all of them are political minefields that need to be negotiated with trees and people in mind. So, work is needed to anticipate how emerging constraints can be avoided and opportunities seized.

Stronger partnerships. Governance frameworks that work with these dynamics and enable poverty reduction and forest sustainability should be the central focus of attention. Instruments that encourage investment in the pro-poor productivity of forest assets are a key component of this, as are capacities and tools geared to developing and assessing this productivity. Increased resource mobilisation will be needed for the above, all of which will require dedication to make effective new partnerships on forest-linked livelihoods. Forestry's protagonists should channel some of the energy and creativity they have shown at international level into such partnerships for practical action.

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