Doing well by doing good: business cases for forests, people and biodiversity

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This paper provides key insights into different forest-based business cases with positive ecological and social impacts, based on results from the ongoing research project 'Business Cases for Biodiversity', carried out by a research consortium consisting of the Copernicus Institute of Utrecht University, Nyenrode Business University and WWF Netherlands. Based on the collection and analysis of >150 examples of business cases across industries, the project provides content and process knowledge for practitioners aiming to develop business with a positive effect on biodiversity. The project is initiated and financed by the Dutch Ministry of Economy, Agriculture and Innovation (ELI).

Sustainable forest-based business

The continuing high priority of 'green' has driven the interest of the financial sector in forest-based business activities with positive impacts on people and ecosystems. This brief overview provides insights into key categories of (emerging) sustainable business cases for forest-based products and ecosystem services; their scope; key success factors and financing needs.

Product markets

Sustainable timber

Forestry has long been a regular asset class in the portfolio of investors and the number of timber producers applying sustainable forestry management continues to grow. FAO estimates that approximately one quarter of global industrial roundwood now comes from certified forests. Yet most of these advances have occurred outside the tropics: less than 2% of forest area in African, Asian and tropical American forests are certified[i]. The most widely applied certification method is the Forest Stewardship Council's. The area of FSC certified forestry has rapidly grown from 2.3 million ha in 1996, to 143 million ha in May 2011[ii], which is about 7% of the of the world's productive forests. The FSC requires a management plan, including endangered species management and a description of environmental protection measures. Yet the actual impact of certification schemes on ecosystems and biodiversity needs to be further explored. A first evaluation indicates that compared to traditional logging practices, certified wood production may have important biodiversity benefits, i.e. if good forest management practices are implemented[iii]. When properly documented and quantified, these biodiversity benefits could be captured into (additional) financing mechanisms. An important challenge for small-scale forest producers wishing to access high-value markets is the significant costs of achieving a higher standard of production, as well as the costs of the certification process itself, in a market driven by increasing competition from relatively inexpensive plantation timber[iv]. Further challenges to scaling up sustainable timber include the geographically concentrated nature of forestry projects; the perceived high risks (including country risk; disasters and reputation of the sector); the required long-term horizon of finance and limited returns.

Non-wood forest products (NWFPs)

It is estimated that ca. 80% of people in the developing world depend on NWFPs for food (incl. bushmeat), fibers and medicines. In addition to this important subsistence function, about 150 NWFPs are traded on the international commodity markets. The reported value of NWFP removals amounted to about US$4.7 billion in 2005, yet "the true market value is probably many times higher, as information was missing from many countries, and the reported statistics probably cover only a small fraction of the true total value"[v]. Sustainability is often difficult to combine with scaling up the production of NWFPs. Success depends upon a number of factors, including the nature of government polices and their enforcement, property rights, market transparency, business management skills and of course the pressure on NWFP resources. At this moment there are little guidelines to sustainable NWFPs. An exception is the recently developed FSC standard for NWFP certification. However, given its relatively high costs FSC certification is probably most appropriate for large-scale industrial NWFP operations[vi].

Agroforestry

By combining sustainable agricultural and forestry techniques at the landscape level, agroforestry systems can offer increased productivity and important social and ecological benefits. Products include coffee, cocoa, medicinal plants, spices, fruits, biofuels and materials. Ecological advantages include the maintenance of species and habitat within productive landscapes, buffering of protected areas and ecological corridors, and carbon sequestration. For example, rubber smallholdings in Indonesia, where farmers grow rubber and other tree crops covering over 3.3 million ha, contains 60–80% of the biodiversity of primary tropical forest.[vii] Challenges to scaling up are similar to those of timber and regular agriculture. Since agroforestry is a strongly developing field, access to specific know-how is an additional success factor.

Ecosystem services markets

Direct payments for environmental services (PES) have been widely suggested as a promising approach to promote sustainable forest management practices[viii] [ix]. The number of PES projects in the developing world is growing, their scope ranging from national programs, often driven by governments (e.g. China, Costa Rica) to smaller, local PES projects, in which the private sector tends to play a larger role. Better spatial targeting, as part of a broader land-use planning process, could significantly boost the impact of payments for environmental services[x]. Recognition of property and land use rights is a key success factor. We discuss the three key markets for forest-based environmental services.

Forest conservation & payments for biodiversity services

Conservation activities allow for very limited (if any) extractive use of the ecosystem (e.g. protected areas). There is a large financing gap for conservation and there are very few cases of business involvement in forest conservation *per se.* Ecotourism, if done right, can contribute to conservation (e.g. if payments are directed to conservation directly, as with park fees). A second exception may be found in biodiversity mitigation banking (e.g. the Business and Biodiversity Offsets Program[xi]; Malua BioBank in Indonesia). These initiatives are inspired by the wetland banking system in the United States, which allows developers to compensate for wetland destruction by purchasing credits from approved mitigation bankers for similar wetlands within a specified area. The scale of this 'market' is significant, yet it depends fully on the regulatory framework.

Carbon

In anticipation of the regulated REDD and REDD+ markets, there is a growing number of unregulated markets dedicated to the voluntary trade of forest carbon credits. These markets sell different types of credits to companies that want to offset their carbon emissions. Yet total investment in forest carbon has remained very limited to date, with an estimate market value of only USD 37 million in 2008. Forest carbon represents only 1% of the (regulated) CDM pipeline. In the voluntary market, on the other hand, there is high demand for forestry projects, representing 24% of 2009 transaction volume[xii]. Uncertainty around whether or not regulatory markets will include forest carbon is holding back demand. There are several examples where (voluntary) carbon with additional social and ecological benefits ('cuddle carbon') is considered more attractive than carbon 'as a commodity'. "The key risks identified by stakeholders include 1) uncertainty around whether or not regulatory markets will include forest carbon, which has adversely affected demand, 2) a lack of clarity on legal issues associated with project design and transactions, and 3) a lack of approved methodologies for measuring forest carbon in the voluntary market. Additionally, projects have difficult cash requirements, with high pre-development costs for carbon measurement and forest management plans that are borne prior to an accurate assessment of potential revenues".[xiii] A number of tools are available to financial institutions that can help mitigate the risk associated with forestry projects. These include guarantees, insurance, (forest) bonds and securitization[xiv].

Water services

Interest in payments for watershed services (PWS) as a tool for watershed management in developing countries is growing, albeit governments tend to be more interested than private parties. A review study of 41 payments for water services schemes reported in 2002[xv] concludes very few were still proceeding six years later, while many of the early proposals did not materialize. The reasons vary and include political unrest and lack of political and financial support. The study concludes PWS schemes are unlikely to be the route to major sources of new private money. Proponents of PWS will increasingly need to make the case for earmarking tax or water revenue rather than (or as well as) tapping private willingness to pay.

Integrated landscape-based approaches

The "bundling" of revenues for forest-based products and for ecosystem payments schemes is considered a potentially effective way to maximize their cost-effectiveness and efficiency[xvi]. Bundling of revenues is needed to create business models that can be competitive to non-sustainable land use practices. Payments for ecosystem services can either be incorporated in a green premium on forest-based products, or stacked to revenues from forest based products. Examples of the latter are payments for carbon services coupled to production of FSC timber, or carbon services in combination with agroforestry. The potential for this type of combinations remains largely unexplored.

Drivers of the business case

The logic for businesses to get involved into socially just and biologically sustainable forest based business activities, as outlined above, include:

- *Higher returns* (resulting from higher productivity, e.g. in agroforestry systems)
- *Security of supply.* Access to forest resources requires sustainable use.
- *New product-market combinations* (e.g. 'conservation turpentine' based on gum resin tapped from pine trees from Las Gaviotas, Colombia)[xvii].
- *Better quality products.* E.g. shade coffee; interesting opportunities for tourism; NWFPs depending on diverse forest ecosystems.
- *Branding & marketing.* Companies may use a positive biodiversity impact for the branding of their new products (e.g. Dutch printing company Chevalier offsets its carbon with social carbon agroforestry activities in Sumatra, using this story for marketing its sustainable ambitions).
- *Liability and compliance.* Regulation is increasingly strict on business activities with a negative impact on people and ecosystems, moving business to reduce its

harmful impacts. Also, regulation is key for the development of ecosystem services markets (e.g. REDD, water regulation).

Scaling up

Scaling up of business-for-biodiversity cases is possible in the following ways:

- Increasing the turnover of the project;
- Broadening: increasing the number of ecosystem services for which payments are provided and thus create new revenue streams;
- Expansion in space: application of the case in a wider area;
- Replication: application of the case in other areas or countries (making the necessary adjustments).

General lessons

1. Until carbon markets get more secure, payments for forest ecosystem services by private parties will likely remain limited. Government regulation for carbon (REDD and REDD+) and public investments (for water schemes) are key to achieve scale.
2. Product-related markets (sustainable timber, NWFPs, agroforestry products) still offer significant development opportunities, with large potential wins for people and biodiversity.
3. The enabling environment (land tenure problems, poor governance) remains a key impediment to successful business cases (all types).
4. The availability of finance is often not the key bottleneck. The logical road to finance is to access national sources first, then international ones.
5. Project owners and other stakeholders must better understand the financial and technical aspects of the business case.
6. Good communication between project team, stakeholders and financiers is key to understand each other's needs.
7. The importance of managerial quality is often overlooked: the capacity to develop high quality projects and business plans is key to success, but often poorly developed.
8. Market development can be actively promoted through network activities for investors, project managers, NGOs and governments.

Financing lessons

Understand the financing needs and barriers to scale up:

1. Financing needs differ significantly for different parts in the value chain (including the nature and size of the finance gap).
2. Finding the appropriate funding source is key. What fits best depends amongst others on the stage of development of the initiative: 1) Grants for exploration of ideas; 2) Seed capital for elaboration of detailed proposals; 3) Venture capital for up-scaling; 4) Bank loans for running business.
3. Smart solutions are needed to deal with uncertainty and risk. For instance, risk-taking entrepreneurs can play an important role in the start-up (pre-VC) phase.
4. Governments and NGOs could play a significant role in improving attractiveness of forestry investments, for instance by moving beyond microfinance of individual projects, towards creation of funds covering risk and promoting the match between demand and supply and by focusing on landscape solutions.
5. Sustainable sourcing policies by governments can be very effective to stimulate market development.

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