
Inputs to the Work of the Standing Committee on Finance concerning Coordination and Cohesion of Financing for Forests

Stephen Leonard and Pablo Pacheco



Contents

Introduction	1
1 Coordination and coherence of forest finance	1
2 Private sector responses to changes in markets and consumer demand	4
Demand Side Measures	5
Barriers to Private Financing	6
3 Agriculture impact on forests	7
Illegal Forest Conversion for Commercial Agriculture	8
Biodiversity loss and Agriculture	9
Biofuels	9
Oil Palm	10
4 Financial support to sustainable forestry / land-use	11
Payments for Ecosystem Services	11
REDD+, Benefit Sharing and PES	13
Cash Transfers	14
References	17
Annexes	
1 Thematic elements of sustainable forest management	18
2 Largest Investors in Palm Oil Sector (2002 – 2011)	19

Introduction

To provide inputs and assist the work of the Standing Committee on Finance (SCF) related to financing for forests, we have undertaken a desk top review of a number of relevant publications obtained from CIFOR research and associated publications and journal articles and through internet searches and provided findings, conclusions and recommendations made from these studies. We emphasize that this review is not exhaustive and there remains a significant amount of documentation that could be considered in relation to such a broad topic. The issue of coordination and cohesion of financing for forests would benefit from ongoing extensive research.

This document is not intended to be an analyses of the findings from these studies nor do we propose any recommendations, but seek to draw these publications and their findings to the attention of the SCF and identify several key messages to assist with the ongoing work of the SCF on the Background Paper and preparations for the 2015 Forum. This paper looks at:

1. Coordination and coherence of forest finance
2. Private sector responses to changes in markets and consumer demand - changes in business as usual models
 - a. Demand Side Measures
 - b. Barriers to Private Financing
3. Agriculture impact on forests
 - a. (Illegal) Forest Conversion for Commercial Agriculture
 - b. Biodiversity loss and Agriculture
 - c. Biofuels
 - d. Oil Palm
5. Financial support to sustainable forestry / land-use
 - a. Payments for Ecosystem Services
 - b. REDD+, Benefit Sharing
 - c. Cash Transfers

We would be pleased to provide the SCF with any of the publications used for the preparation of this document to contribute to the work of the SCF.

1. Coordination and coherence of forest finance

A scoping study seeking to provide clarity on the current state of coherence and coordination in relation to financing for forests was undertaken by Tropenbos International and commissioned by the Ministry of Economic Affairs of the Netherlands and published in April 2013 (Tropenbos Study). The study found that currently, the World Bank and the Global Environment Facility (GEF) are considered to be the most relevant fora for SFM financing. However, the Green Climate Fund (including REDD+), is recognized as having significant potential. This study found that:

1. SFM financing is a discussion topic in 22 different intergovernmental fora: six UN Conventions, five UN agencies, four Multilateral Banks and seven Regional Governmental Initiatives. These fora are difficult to compare and different in nature. However, they all have one thing in common; they put in place SFM financing mechanisms, 48 in total.
2. Most of the SFM mechanisms developed – 28 out of 48 – are specific funds and programmes designed to be effective for a limited period only. In addition, there are seven funds with a long-term time horizon and 13 platforms for knowledge exchange and discussion.

3. The World Bank Group stands out as the major organisation working on SFM financing. Its 5 agencies have together developed 10 different SFM financing mechanisms. From the UN Conventions, UNFCCC (4) CBD and GEF (all with 3) have put in place the most mechanisms. From the UN agencies, FAO (5) and ITTO (3) have been most active in creating SFM-financing mechanisms. As for the Regional Governmental initiatives, the EU has been the most active (3).
4. The overall visions behind the 48 SFM financing mechanisms show many commonalities. Although specific mechanisms target particular results, four of the key shared ambitions are: reverse of forest loss, unlocking the potential of forest products and services, capacity building and good governance.
5. Shared goals are largely absent at the operational level. There are substantial gaps and overlaps in addressing the 7 themes of SFM¹. Most attention is focused on the productive functions of forest resources, due to the strong emphasis of many mechanisms on forest carbon, including REDD+. Socio-economic functions and legal, policy and the institutional framework themes are also well represented. By contrast, the extent of forest cover, forest health and vitality and protective functions of forest resources are not covered at all.
6. The policy objectives of the SFM financing mechanisms are not coherent, indicating gaps and overlaps. The primary focus is on capacity building and generating general support in implementation of forest policies and projects, which is in line with the emphasis on forest carbon. By contrast, there is far less attention on issues such as market development.

The Tropenbos Report shows that in order to address the issue of coordination and cohesion of financing for forests and to mobilize new and additional finance for sustainable forest management (SFM), it is necessary to enhance access and effective use of existing sources of finance, and create synergies amongst different initiatives in the various intergovernmental fora. However, efforts to achieve this have been challenging due to diverging roadmaps in the existing fora where visions, objectives, stakeholders and approaches have pursued different paths with different priorities, reporting systems, types of projects and funding cycles. The Report considered that these challenges have created difficulties in standardizing projects/ programmes in a way that makes coordination functional. Real coordination requires collaboration, which is likely to require the range of financing initiatives to adapt programmes to fit in with each other.

The United Nations Forum on Forests (UNFF) Advisory Group on Finance Collaborative Partnership on Forests undertook a study during 2012 (2012 UNFF Study) which sought to identify the current knowledge on forest finance through information obtained from multiple sources, local and national government experts, other experts and representatives of multilateral institutions. The study seeks to identify gaps in information about forest finance, most notably the need to be able to access data on forest finance. The study identified 21 key points for consideration:

1. Information continues to be more limited on domestic public and private forest finance than that of the external sources.
2. The global need for funding for SFM is estimated to be between USD 70 and USD 160 billion per year. Globally, resources remain insufficient to address all seven thematic elements of SFM in a balanced way, as defined in the forest instrument.
3. Most countries are unable to raise adequate public funds for the forest sector, and re investment of revenues in forest management has been minimal.
4. Conversion of public forest institutions into semi-autonomous commercial enterprises has been used to improve self-financing from the forest sector. Another trend is establishment of national forest funds for the mobilization of additional funds from other sources.

¹ See Annex 1 for a description of the Seven Themes of SFM.

5. ODA disbursements increased by an average of 125% between the periods 2002-2004 and 2008-2010, largely due to REDD+ related financing. Thus, the fourth Global Objective on Forests, to the extent that it deals with ODA, has been achieved.
6. High forest cover countries (HFCCs) have received the majority of forestry ODA. But most HFCCs with lower rates of deforestation, low forest cover countries (LFCCs) and small island developing states (SIDS), trees outside forests, and plantations do not receive adequate funding. LFCCs and SIDS continue to experience decreases in forestry ODA.
7. The private sector including forest communities, smallholders, industry and other investors is a key source of finance for forests, mostly through investments in forests managed for wood production. New private investors generally come from outside the forest industry, and seek suitable combinations of financial returns and risk levels.
8. Smallholders have limited access to finance compared to large producers. Sustainable management of natural forests receives limited financing compared to that of planted forests and protected areas.
9. Existing, new and emerging forest related financing mechanisms have provided significant resources that are linked mainly to climate change, and to a lesser extent to biodiversity.
10. The potential for REDD+ to contribute to forest financing is large, estimated at as much as USD 6.2 billion per year in 2020. Around USD 4 billion was pledged for the period 2010–2012. Apart from REDD+, however, many of the other carbon-related initiatives have no or negligible activities on forests.
11. PES schemes are not yet broadly applied and require enabling policy frameworks as well as development of market and non-market financing mechanisms.
12. Obstacles to the mobilization of forest finance also include inadequate enabling conditions, insufficient capacities, donor and investor concerns about governance, insecure tenure, illegal activities, problems associated with eligibility and complex procedures to access external resources. Sometimes inefficient use of the existing resources has further exacerbated the problem.
13. No single solution can address the need for forest financing. A mixture of measures should be undertaken at all levels simultaneously.
14. Success in forest finance stems mainly from strong political support; good systems of governance; efficient, robust and flexible implementation; and involvement of forest communities and other stakeholders.
15. National forest financing strategies should target raising additional financing and more efficient use of resources as well as connecting with relevant sectors and programme objectives with the forest sector.
16. Improving statistics and data collection on financing flows to SFM and related issues at all levels is essential for making systematic progress. Multiple mechanisms under the NFPF, UNFF, CCD, CBD, FAO/PROFOR and others, as well as the CPF online sourcebook, should be strengthened to improve data collection and access.
17. Implementation of the forest instrument has to be strengthened at all levels. To enhance transparency of international public financing for forests, a “Rio marker” for funding addressing the forest instrument and its four Global Objectives on Forests should be established.
18. International and regional organizations and processes should enhance inter-regional and intraregional cooperation on forest financing by sharing relevant experience, knowledge and expertise.
19. The GEF6 replenishment (2014-2018) should expand the GEF SFM/REDD+ Strategy to include a new GEF focal area specifically on forests.
20. Access to resources of the existing forest-related financing mechanisms can be further improved by adjusting public sector financing criteria and streamlining the relevant procedures.
21. Consideration could be also given to strengthening existing forest-related financing mechanisms and devoting a new fund or funds for SFM to address the needs and gaps that are not yet addressed by the existing mechanisms.

The CIFOR Info Brief entitled ‘Financing sustainable small-scale forestry. Policy issues and lessons from developing national forest financing strategies in Latin America’ (Info Brief No. 29) considers that failure to secure a sufficiently high return from SFM in comparison with unsustainable uses or land conversion, will cause the continuation of deforestation and forest degradation. Info Brief No. 29 identifies that improving the attractiveness of SFM requires broadening and diversifying financing as well as increasing the revenues that can be derived from forests. Financial resources are needed to solve cash flow problems, pay for operational capital or labour, invest in new technologies and manage risks and uncertainties. This Info Brief finds that soft investments are also often needed to build capacity and improve the overall policy and institutional environment in order to make forest financing more accessible and affordable.

The World Bank Programme on Forest (PROFOR) released a study in 2012 entitled ‘Private Financing for Sustainable Forest Management and Forest Products in Developing Countries—Trends and Drivers’ (2012 PROFOR Study) which estimates that the required funding for SFM is in the order of US\$70–160 billion per year globally. This study finds that at present, official development assistance disbursements to forestry cover about 1 percent of the estimated total financing needs for SFM, and other available public sector financing sources barely double that amount. The 2012 PROFOR study recommends that to scale up SFM, to create value-added economic growth and employment and protect forests from competing unsustainable land uses, domestic and foreign private financing and investments need to increase significantly.

2. Private sector responses to changes in markets and consumer demand

It is widely known that the social and environmental costs associated with deforestation have been high. The relative hidden costs associated with deforestation are highlighted in a recent report released by the Climate and Land Use Alliance (CLUA) entitled ‘Disrupting the Global Commodity Business’ (2014 CLUA Report). This report identifies that new agricultural lands have come at the expense of vulnerable, forest-dependent indigenous populations, pushing them off their lands and into poverty. And this forest destruction is a major factor in global biodiversity loss.

The 2014 CLUA Report finds that the hidden costs of doing business in the forest sector are becoming increasingly unacceptable and unnecessary with many Indigenous groups and a growing consumer movement pushing back, supported by a broad array of nongovernmental organizations (NGOs). The report identifies that forward-thinking companies and governments are changing the rules of the marketplace by committing to produce and purchase only commodities that do not harm forests and forest-dependent people. And communities that depend on forests are pledging to protect their forests from encroachment, and asking for support to do so.

The CLUA report also identifies that in some cases, indigenous peoples, activist NGOs, brand-name corporations, and progressive governments are nearing a tipping point for transforming the way food and consumer goods are produced. Using the example of Brazil, where reductions in deforestation in the Amazon have been achieved while increasing commodity production, rural living standards, and farm incomes, this report finds that there is a paradigm shift from the old business model occurring and that the success of Brazil could spread to Southeast Asia and Africa. CLUA attribute this success to new progress in the palm oil industry—where over 60 percent of global trade is now controlled by companies that have committed to eliminating deforestation and human rights violations from their supply chains. These pledges, mostly made since December 2013, are from companies with \$30 billion in annual palm oil sales.

The Carbon Disclosure Project (CDP) forests program acts on behalf of investors to collect information from companies on the operational, reputational and regulatory risks and opportunities, and the value creation and erosion, resulting from their exposure to deforestation. The CDP 2013 forests information request was

sent to 786 companies on behalf of 184 investors with US\$13 trillion in assets. 139 companies with market capitalization in excess of US\$3 trillion answered this request, spanning a range of industry sectors and 26 different countries.

What CDP call 'forest risk commodities' are considered to be the building blocks of millions of products traded globally and feature in the supply chains of many companies. The loss of natural capital due to land use by the primary production and primary processing sectors is estimated to be costing the global economy US\$1.8 trillion annually. The CDP Report identifies that companies dependent on forest risk commodities, and their shareholders, are at risk from losing the value that access to artificially low-cost resources from the use of recently deforested land brings.

The most recent survey undertaken by CDP has identified a number of themes, which are of concern to investors. These include incomplete risk assessments, poor articulation of security of supply and price volatility as operational risks in securing these commodities, a lack of action to build capacity along their supply chains to deliver sustainable commodities and a lack of understanding of climate change risk. The 2013 CDP forests program responses elicited a number of key challenges facing companies across sectors when trying to source sustainable commodities:

1. Lack of traceability in global commodity supply chains - Difficulties in tracing back raw materials to a specific source and the complexity and lack of transparency in supply chains are found to be major barriers across most of the sectors and commodities. Companies are asking for help in formulating steps to improve performance and sourcing guidelines as well as developing appropriate key performance indicators for work with supply chains.
2. Challenges with certification - Companies point to a need for the demand for certified commodities to reach a 'tipping point' in order to increase quantities and reduce price. Those in the agricultural sector look to larger companies and publicly made commitments for 2015 and 2020 by manufacturers and retailers to steer the trajectory of the market from niche to mainstream. The issue of who pays for certification is still a contentious one.
3. Regulatory uncertainty - Legal uncertainty and lack of government action are cited as barriers to the supply of certified commodities, as well as a lack of global agreement on post Kyoto measures for protecting forests, including financial compensation mechanisms.

Demand Side Measures

The IIED report of 2013 entitled 'Demand-side interventions to reduce deforestation' (IIED Report) identifies that a variety of demand-side measures have been developed and implemented over the last decade or more by government, private sector and civil society. Examples include legislation, public procurement policies, voluntary bilateral arrangements, multi-stakeholder roundtables, independent certification, moratoria, voluntary disclosure, investor activism and consumer campaigns. This paper reviews demand-side measures affecting five types of 'forest risk commodity', namely timber, soy, palm oil, beef/ leather and biofuels. Information was collected from literature, interviews and an international meeting to identify challenges and opportunities. The key findings of the IIED Report include:

- Addressing demand for commodities driving deforestation is critical to the long-term success of measures to slow or stop deforestation.
- Demand-side initiatives cannot in practice be delinked from supply-side initiatives.
- Public sector interventions have focused almost exclusively on the timber sector while failing to address agricultural commodities as the major drivers of deforestation.
- Campaigns have been crucial in stimulating the implementation of interventions.

- Limited data exist to capture actions or the effectiveness of demand-side interventions – more robust analyses could help demonstrate success and improve uptake.
- Lack of demand because of consumers' unwillingness to pay a premium for certified or 'deforestation free' products affects the market share of interventions.
- Focusing on specific areas of production, through moratoria or certification, leads to a risk of leakage, so that while forest may be saved in one area, it may be lost in another.
- Understanding sustainability from the opportunity-based perspective of securing supply, markets and tenure is likely to secure broader support of key actors.
- Lack of synergy between demand-side measures requires the strategic application of a mix of demand-side measures and coordinated involvement of actors along supply chains.
- Given their size and growth projections, there is a need to more fully engage emerging markets (particularly in Asia) in developing and implementing demand-side measures.

The IIED Report points out that to address these challenges, new stakeholder networks should improve the lines of communication by reaching out to actors who may have previously been excluded. The financial sector needs to be meaningfully involved in addressing the skills or financial gaps that may prevent some producers from adhering to certain standards or demonstrating traceability, and in the search for appropriate incentives in support of deforestation-free commodity production. The Report recommends that NGOs, civil society groups, certification schemes, governments, forest producers and managers, and investors should collaborate to investigate the risks and impacts throughout supply chains and at a landscape level.

Barriers to Private Financing

The 2012 PROFOR Study considers that there is no coordinated and systematic effort to collect and synthesize information on private investment flows in the forest sector and information on private forest financing is scarce and inadequate at all levels. Although it is widely recognized that the private sector will play an even bigger role in the financing of forestry, this study finds that there is surprisingly little is known about why this potential has not been fully realized and what the main impediments are. This 2012 study considers the main barriers to financing private investments in SFM in developing countries as to be as follows:

- Higher real and perceived risks in developing and emerging countries than in industrialized countries. These include political risks, unsecure land tenure, currency risks, social and environmental risks, as well as reputational risks. PROFOR identify that reputational risks can play a major role in deterring the mobilization of institutional (for example, pension fund) money for forestry in developing countries.
- Weak availability of both domestic and foreign equity and loan financing. The report states that this is true in general and even more so for forestry investments, where scarcity of capital is combined with limited understanding of forestry sector investments within financial institutions. International equity financing is found to be especially difficult to secure for projects under US\$20–25 million.
- Unfavorable terms for financing. Forestry businesses, except those interested in short-term returns irrespective of sustainability concern, have extreme difficulties raising finance. If domestic debt financing is available, the interest rates can be excessively high (in local currency), and loan payback periods very short (from six months to three years). Furthermore, debt finance is often made available only after sufficient equity is in place, so the scarcity of equity and availability of debt financing are often linked.
- Higher up-front costs of preparing investment projects in the forestry sector. This results from a number of factors, including the shortage of information on forest resources and investment opportunities and related risks in general, and higher transaction costs throughout the investment cycle for small and medium-sized projects.

3. Agriculture impact on forests

When addressing the issue of coordination and cohesion of financing for forests, it is necessary to look beyond the forest sector and to also address financing related to drivers of deforestation, the most significant being that of agriculture.

Chapter 8 of the FAO Report published in 2011, entitled 'Looking Ahead in world food and agriculture' concerns capital requirements for agriculture in developing countries to 2050 (2011 FAO Report). The 2011 FAO report identifies that food production, more than any other form of economic activity, relies on productive natural resources and is nearly all-embracing, including cropland and pastures, forests and plantations, oceans and fresh water, as well as plant and animal genetic resources. This report finds that the need to raise food production means that these resources must be used more intensively in the future and thus poses an increased risk for their degradation or complete destruction. The report identifies that the annual incremental investments to develop and conserve natural resources have been estimated to amount to USD 9.4 billion. Incremental public sector investment needed to use forests in a sustainable manner is estimated conservatively at USD 2.4 billion per year. This would be used to protect forests from unauthorized or unplanned conversion, manage wild food sources in forests, develop alternative livelihood opportunities for food-insecure forest-dependent populations and minimize and offset the negative consequences of converting forest to agricultural land.

The ESA Working Paper No. 12 – 09 released in 2012 by the Agricultural Development and Economics division of the FAO entitled "Who Invests in Agriculture and How Much" (ESO Paper) provides a review of private and public investment in agriculture. The working paper finds that investors in agriculture can be categorized as public or private and foreign or domestic with the majority of private domestic investors being farmers as the largest source of investment in agriculture in low- and middle-income countries. On-farm investments in agricultural capital are more than 4 times the size of government spending in these countries. Domestic public investors, primarily national governments, are found to be the next largest source of investment in agriculture, followed by foreign public investors such as development partners and by foreign private investors, such as corporations.

The ESO paper considers the importance of these findings for policy, in that, while funding of public investment in agriculture remains essential, in order to spur agricultural development, the focus of governments and international organizations should broaden and the international community and domestic governments should consider policies that help create the enabling environments which foster more socially and environmentally sustainable private investment in agriculture.

The FAO 2013 report "Trends and impacts of Foreign Direct Investment in Developing Country Agriculture" (FAO 2013 Report) acknowledges that the late 2000s witnessed a surge in foreign direct investment (FDI) in primary agricultural production in developing countries linked to the steep rise in commodity prices in 2007-2008. In addition, the report identifies that high energy prices triggered international investment in the production of feedstock crops for biofuels. The spike in food prices prompted countries that are heavily dependent on food imports to invest in other countries where land and other natural resources (in particular water) are abundant with a view to securing supply. The FAO 2013 report finds that these countries view the ownership of production and the possibility to export the harvest back home as a more reliable strategy for food security than depending on international markets.

Various studies considered by the FAO 2013 Report suggest that investors are targeting countries with weak land tenure security, although they seek countries that, at the same time, offer relatively high levels of investor protection (Anseeuw et al. 2011, Deininger and Byerlee 2011). The report finds that there is a tendency for investors to focus on the poorest countries, and those that are also less involved in world food exchanges. Investors are targeting countries that are among the poorest, are poorly integrated into the world economy,

have a high incidence of hunger, and weak land institutions. The report also finds that the lands acquired by foreign investors tend to be among the best ones, with good soil quality, high production potential, irrigation and proximity to infrastructure and markets.

The FAO 2013 Report finds that large-scale acquisition of agricultural land can have adverse impacts, especially in countries where there is a lack of good governance, rule of law, transparency and clear land tenure rights. These negative effects include the displacement of smallholder farmers, the loss of grazing land for pastoralists, the loss of incomes and livelihoods for rural people, the depletion of productive resources, and in general, negative impacts on local livelihoods due to reduced access to resources, which may lead to social fragmentation. There is also evidence of adverse environmental impacts, in particular the degradation of natural resources such as land, water, forests and biodiversity.

Studies suggest that for investment involving large-scale land acquisitions in countries where land rights are unclear and insecure the disadvantages often outweigh the few benefits to the local community, especially in the short run. Successful projects combine the strengths of the investor (capital, management expertise and technology) with those of local farmers (labour, land, traditional know-how and knowledge of the local conditions).

Illegal Forest Conversion for Commercial Agriculture

While existing studies estimate that at least half of global deforestation in the past decade was for commercial agriculture, Lawson et al (2014) finds that the proportion for tropical deforestation is higher. This report released in September 2014 entitled 'Consumer Goods and Deforestation: An Analysis of the Extent and Nature of Illegality in Forest Conversion for Agriculture and Timber Plantations' finds that nearly three-quarters (71 percent) of all tropical deforestation between 2000 and 2012 was caused by commercial agriculture. The report finds that almost half (49 percent) of total tropical deforestation between 2000 and 2012 was due to *illegal* conversion for commercial agriculture. Nearly one-quarter (24 percent) was the direct result of illegal agro-conversion for export markets. Nearly half (49 percent) of all agricultural commodity products produced on illegally deforested lands were destined for export markets. Nearly three-quarters (70 percent) of all soy in international trade, one-third (32 percent) of the beef, and all of the palm oil, originate in tropical forested countries. Additional findings from this report include:

- In terms of climate change, the emissions caused by illegal conversion of tropical forest for large-scale commercial agriculture during 2000-2012 was an average of 1.47 gigatonnes of CO₂ per year—the equivalent of one-quarter of the annual fossil fuel-based emissions of the EU (Global Carbon Project 2012).
- In terms of trade, the value of agro-commodities (beef, leather, soy, palm oil, tropical timber, pulp and paper, and plantation wood products) produced on land illegally converted from tropical forests is estimated at \$61 billion per year.
- Regional differences can be noted, but widespread and high-level corruption with the issuance of licenses for converting forests for commercial agriculture is common across the countries studied.
- Even in tropical forest countries where export-driven commercial agriculture has not been a major driver of deforestation, the situation is rapidly changing, and the same illegalities seen elsewhere are being repeated.

In summary, the evidence presented by Lawson indicates that the phenomenon of illegal forest clearing for commercial agriculture and associated exports has continued at an alarming rate since at least the start of the 21st century, that this problem is worse than previously thought—and is likely occurring to a greater extent than the conservative estimates in the analysis show. The report finds that it is increasingly clear that much of the forest land conversion for large-scale agricultural projects is in violation of some of the producer countries' most basic laws and regulations and incurring high social and environmental costs. These illegalities will become more pronounced as producer countries encourage agricultural investments as a way to catalyze growth.

More specifically on the issue of tenure, the 2011 FAO report, 'Safeguarding Food Security in Volatile Markets' identifies that the overall investment requirements to establish new and enhance existing land title and land tenure systems have been estimated at USD 0.8 billion annually. This report finds that these investments comprise two components: first, establishing land registers, cadastre systems and enacting the legal code that allows to establish and enforce property rights; and second, creating the relevant institutions as such, ensuring that they have universal outreach to cover remote areas and establishing the legal framework needed to enforce property and tenure rights and to interpret these rights so that possible conflicts are avoided from the outset.

Biodiversity loss and Agriculture

The Journal Article published in Ecology Letters (2012) entitled 'The cost of policy simplification in conservation incentive Programs' (EL Article) recognizes that habitat destruction and degradation associated with conversion to and intensification of agricultural land is a leading driver of losses of biodiversity and ecosystem services (Wilcove et al. 2000; Millennium Ecosystem Assessment 2005; Donald et al. 2006; Venter et al. 2006). It considers the incentives provided by governments to encourage farmers to undertake protection measures to enable biodiversity and agriculture to coexist.

The EL Article identifies that the EU and member states spend on average \$7.2bn per year on incentive payments to farmers that are designed to safeguard environmental benefits including biodiversity, with 22% of the utilised agricultural land area covered by these schemes (Cooper et al. 2009). The article considers that the most common design of these 'agri-environment' schemes (AES) is to pay farmers an annual rental fee on a fixed term contract in return for management actions to provide environmental benefits. The Article considers that these types of AES arrangements are now being replicated in Payments for Environmental Services programs throughout the world (Jack et al. 2008; Quintero et al. 2009; Chen et al. 2010; Sommerville et al. 2010).

The EL Article results highlight that the lower administrative burdens that accompany commonly employed, simple program designs offer false economies. Instead, the additional implementation costs that accompany policies that account more fully for variation in the costs faced by landowners in producing biodiversity benefits would be worth bearing even when these constitute a substantial proportion (70% or more) of the payments that would otherwise have been given to farmers.

Biofuels

CIFOR Info Brief No. 36, January 2011 entitled 'Biofuel finance: Global trends in biofuel finance in forest-rich countries of Asia, Africa and Latin America and implications for governance' identifies that the global biofuel sector grew considerably in the 2000– 2009 period, driven primarily by concerns about fossil fuel prices and availability. Info Brief 36 identifies that global production of ethanol (as a gasoline substitute) increased from 11.0 million tonnes of oil equivalent in 2002 to 38.4 million tonnes in 2009, of which 53% was produced in the United States, 34% in Brazil and 4% in Europe (BP 2010). Global production of biodiesel increased from about 2.2 million tonnes in 2002 to a forecasted 19.1 million tonnes in 2010, with an estimated 51% being produced in Europe, 11% in Brazil, 10% in Argentina and 9% in the United States (ISTA Mielke 2010).

CIFOR Infobrief 36 recognizes that while Brazil and Argentina are important biofuel producers, most developing countries do not play a significant role in supplying biofuels to global markets; however, they do increasingly supply feedstocks. At present, 13% of Europe's feedstock demand for biodiesel production is covered by soybean oil imports, while 5% is covered by palm oil imports. Due to growing demand for biodiesel in Europe, China and India, these regions are projected to import increasing volumes of feedstocks from developing countries (MVO 2009; ActionAid 2010). To finance the expansion of biofuel and feedstock production, large investments will be undertaken.

In the CIFOR Working Paper 60 entitled 'Enhancing financiers' accountability for the social and environmental impacts of biofuels' van Gelder et al identifies that various groups of financiers are involved in financing investments in biofuel feedstock growing and biofuel production in forest-rich countries in Asia, Africa and Latin America. In 20 country studies researched, an estimated US\$ 2.0–2.7 billion was invested in growing feedstocks for biofuel in a 10 year period prior to 2011. Investments in producing biofuel from these feedstocks were estimated at US\$ 5.7–6.7 billion since 2000 in the 20 country–feedstock pairs studied.

The Working Paper finds that investments in feedstocks and biofuel production were financed by private entrepreneurs, as well as by public financiers (e.g. government subsidies, multilateral development loans and grants, and investments by state-owned companies) and by private financial institutions (e.g. banks, asset managers, pension funds). A large number of private financial institutions were found to be involved, most of which are located outside the country where the investment took place. The findings suggest that most private and public financiers involved are not yet effectively addressing key environmental and social sustainability challenges as they lack sustainability policies. This Working Paper asserts that realising the potential influence of private and public financiers on minimising the negative social and environmental costs associated with feedstock expansion and biofuel production requires improved dissemination of high-quality governance instruments amongst various financiers. Furthermore, the quality of governance instruments needs to be enhanced.

Oil Palm

Preliminary research has been undertaken by CIFOR to understand the patterns of public and private investments and financing in the production and processing of palm oil in Brazil, Colombia, Peru, Cameroon, DR Congo, Ghana, Liberia, Nigeria, Uganda, Indonesia, Malaysia and Papua New Guinea over the past ten years (2002–2011) for the purpose of identify likely future trends. This research is ongoing and the current draft publication remains unpublished, however we have provided a table at **Annex 2** to this document, which sets out the current findings of the report in terms of the largest investors in the industry in each of the subject countries.

For the purpose of the work being undertaken by the SCF and engagement of the oil palm private sector in the Forum or for the purpose of consultation, companies with operations in multiple countries such as Genting Plantations², Golden Agri-Resources³, Herakles Farms⁴, Siat Group⁵, Sime Darby⁶, Socfin⁷ and Wilmar International⁸ may be worth entering into discussions with for engagement.

2 Indonesia and Malaysia.

3 Indonesia and Liberia.

4 Cameroon and Ghana.

5 Ghana and Liberia.

6 Indonesia, Liberia and Malaysia.

7 DR Congo, Cameroon and Nigeria.

8 Ghana, Indonesia and Malaysia.

4. Financial support to sustainable forestry / land-use

Payments for Ecosystem Services

The OECD Publication 'Paying for Biodiversity, Enhancing the Cost Effectiveness of Payments for ecosystem services' (2010) (Paying for Biodiversity) identifies that interest in Payments for Ecosystem Services (PES) has been increasing rapidly since 2000 and that as at 2010 PES are estimated to channel over USD 6.53 billion annually by national programmes in China, Costa Rica, Mexico, the United Kingdom and the United States alone. This report describes PES as systems that enable metrics and indicators, including environmental or biodiversity benefit indices, to be developed to identify areas where benefits are highest. Scoring or weighting methods can help to prioritise payments, in particular when multiple ecosystem services are being targeted and when there are inherent trade-offs in their provision. The OECD report identifies that to ensure that any ecosystem services paid for are indeed additional to those that would have occurred under a business-as-usual (*i.e.* baseline) scenario, payments should only be made to ecosystem services that are at risk of loss, or to enhance their provision.

Paying for Biodiversity finds that finance for PES can be mobilised directly from the ecosystem service users themselves, or from third-parties acting on behalf of the beneficiaries, such as governments or institutions. Since biodiversity provides benefits at the local, regional and global scale, how finance for PES can best be mobilised may depend on the geographic scale of the ecosystem service benefits. For example, if the objective is to address the local public good benefits of ecosystem services (such as watershed services), sources of finance can be mobilised at the local level from the users directly. If the objective is to address regional and global public good benefits, the most appropriate source of finance may be via governments or institutions at the national and international level, respectively. The environmental and cost-effectiveness of PES depend crucially on programme design and implementation. Twelve key criteria that are essential to enhance PES effectiveness according to this report are:

1. *Remove perverse incentives:* For a PES programme to produce clear and effective incentives, any conflicting market distortions, such as environmentally-harmful subsidies, should be removed.
2. *Clearly define property rights:* The individual or community whose land use decisions affect the provision of ecosystem services must have clearly defined and enforceable property rights over the land in question.
3. *Clearly define PES goals and objectives:* Clear PES goals help to guide the design of the programme, enhance transparency and avoid *ad-hoc* political influence.
4. *Develop a robust monitoring and reporting framework:* Monitoring and reporting of biodiversity and ecosystem services is fundamental, enabling the assessment of PES programme performance, and allowing for improvements over time.
5. *Identify buyers and ensure sufficient and long-term sources of financing:* Whether the buyers of services are the beneficiaries themselves, or third-parties acting on behalf of the beneficiaries, the finance must be sufficient and sustainable to ensure that the objective of the PES programme can be achieved.
6. *Identify sellers and target ecosystem service benefits:* Accounting for spatial variation in ecosystem service benefits via economic valuation, benefit scoring, and mapping tools allows payments to be prioritised to those areas that provide the highest benefits. If the total PES budget available is limited, this can substantially increase the cost-effectiveness of the programme, in comparison to say, allocating payments on a first-come first-served basis.
7. *Establish baselines and target payments to ecosystem services that are at risk of loss, or to enhance their provision:* A PES programme should only make payments for ecosystem services that are additional to the business-as-usual baseline.

8. *Differentiate payments based on the opportunity costs of ecosystem service provision:* PES programmes that reflect ecosystem providers' opportunity costs via differentiated payments are able to achieve greater aggregate ecosystem service provision per unit cost.
9. *Consider bundling or layering multiple ecosystem services:* Joint provision of multiple services can provide opportunities to increase the benefits of the programme, while reducing transaction costs, especially if finance for multiple benefits is available. The potential synergies and trade-offs involved in joint ecosystem service provision need to be identified.
10. *Address leakage:* Leakage occurs when the provision of ecosystem services in one location increases pressures for conversion in another. If leakage risk is expected to be high, the scope of the monitoring and accounting framework may need to be expanded to enable assessment of the potential leakage so that appropriate measures can be introduced to address it.
11. *Ensure permanence:* Events such as forest fires or illegal logging may undermine the ability of a landholder to provide an ecosystem service as stipulated in a PES agreement. If these risks are high, this will impede the effective functioning of a PES market. Insurance mechanisms can be introduced to address this.
12. *Deliver performance-based payments and ensure adequate enforcement:* Ideally, payments should be ex-post, conditional on ecosystem service performance. When this is not feasible, effort-based payments (such as changes in management practices) are a second best alternative, provided that changes in ecosystem management practices will bring about the desired change in service provision. Sufficient disincentives to breaching the PES agreement must also be provided and enforced, especially if payments are based on efforts rather than on actual ecosystem service delivery.

PES has been defined as a voluntary transaction between at least one buyer and at least one seller in which payments are conditional on maintaining an ecosystem use that provides well-defined environmental services (Wunder 2007). The payments thus provide a direct, tangible incentive to conserve the ecosystem and prevent encroachment by others.

The 2010 Article published in the Journal 'Review of Environmental Economics and Policy' entitled 'Show Me the Money: Do Payments Supply Environmental Services in Developing Countries?' (REEP Article) considers a series of papers released since 1996 concerning the idea that direct conservation approaches such as PES could also be cost-effective (Ferraro 2001; Ferraro and Kiss 2002; Ferraro and Simpson 2002; Simpson and Sedjo 1996). This Article finds that, in contrast to decades of "conservation by distraction" (e.g., integrated conservation and development projects) that have only indirect and often tenuous effects on conservation, direct payments such as PES schemes are likely to be (a) institutionally simpler; (b) more cost-effective in delivering benefits to buyers; (c) more effective in generating economic growth among suppliers by improving cash flow, diversifying income sources, and reducing income variance; and (d) provide new sources of finance for conservation.

The REEP Article asserts that it is very likely that many REDD projects will ultimately be PES-like projects. It recognizes that in most REDD proposals, payments are only to be made if there are improvements relative to a historical or predicted deforestation baseline and that this conditionality feature is a sharp, but promising, departure from previous international efforts to slow tropical deforestation. The Article is optimistic about the potential for REDD to improve PES evaluations and considers three features of REDD to support this optimism. First, it has the clear goal of additionality. Second, large amounts of international resources are being poured into its design and the implementation of pilot initiatives, some of which will be devoted to monitoring and evaluation. Third, given the advances in science and remote sensing, carbon storage is becoming easier to measure and monitor, especially compared to biodiversity and watershed services.

The REEP Article does however find that the current state of PES is cause for concern. It finds that there is nominal monitoring and sanctions to ensure conditionality and very little evaluation of additionality. It also finds that it is not yet possible to fully understand either the conditions under which PES has positive environmental and socioeconomic impacts or its cost-effectiveness. The Article considers that if more PES

programs were designed at the outset with the intention of evaluating their effectiveness, it would make a vital contribution toward filling the large gap in knowledge about effective conservation investments, including those related to realizing REDD's potential.

REDD+, Benefit Sharing and PES

The 2013 Article published in *Ecology and Society* entitled "Who should benefit from REDD+? Rationales and Realities' (E & S Article) describes benefit-sharing mechanisms as a central design aspect of REDD+ because they help to create the necessary incentives to reduce carbon emissions. The Article warns that if stakeholders do not perceive the benefit sharing as fair, the legitimacy of REDD+, and support for the mechanism, will be weakened.

In this paper, drawing on data from CIFOR's Global Comparative Study on REDD+, an analysis of national policy processes in 6 countries and incipient benefit-sharing arrangements in 21 REDD+ project sites has been undertaken. Through this analysis a number of rationales are identified that have been put forward to justify how benefits should be distributed and to whom. Some hold that benefit sharing should be related to actual carbon emission reductions or to costs incurred in achieving the reduction of emissions; others emphasize the importance of a legal right to benefit, the need to consider aspects such as poverty reduction or the appropriateness of rewarding those with a history of protecting the forest.

The E & S Article identifies that each rationale has implications for the design of benefit-sharing mechanisms and the equity of their outcomes. It points out that, given the wide range of rationales and interests at play, the objectives of REDD+ and benefit sharing must be clearly established and the term "benefit" defined before effective benefit-sharing mechanisms can be designed. For stakeholders to support REDD+, the legitimacy of decision-making institutions, consideration of context, and attention to process are critical.

An Article published in 2014 in the Journal 'Human Ecology' entitled 'Local Preferences and Strategies for Effective, Efficient, and Equitable Distribution of PES Revenues in Vietnam: Lessons for REDD+' describes REDD+ benefit sharing as the distribution of direct and indirect net gains from the implementation of REDD+, or as a broader system that also includes the introduction of new institutional settings, organizational arrangements and instruments for distributing financial and other net benefits from REDD+ programs (Luttrell et al. 2012). This Article finds that when designing a benefit-sharing system, the efficient distribution of costs, the institutional structures needed for financial transfers, and the processes for making decisions and implementing the final mechanism must all be considered (Lindhjem et al. 2010; Vatn and Vedeld 2011).

The implementation of REDD+ projects and policies is expected to generate benefits, both monetary and nonmonetary. For most countries carrying out REDD+ activities, one of the most pressing tasks is to develop governance structures to distribute these benefits among stakeholders in an effective, efficient and equitable manner (Luttrell et al. 2012, 2013; Pham et al. 2013a). Benefits can be shared on a 'vertical axis' from national via regional to local levels and on a 'horizontal axis' within and across communities, households and other local stakeholders (Lindhjem et al. 2010; UN-REDD 2011).

The 2014 CIFOR Info Brief No. 68 entitled 'Lessons from Payments for Ecosystem Services for REDD+ Benefit-Sharing Mechanisms' seeks to provide policymakers and practitioners with policy options and guidance to improve the design of benefit-sharing mechanisms for REDD+ by looking at lessons learned from the implementation of PES schemes. This recent publication discusses ways to improve the effectiveness of benefit sharing in a multilevel governance structure and to reduce the costs of REDD+ benefit-sharing mechanisms, and explores ways to motivate both buyers and sellers of ecosystem services to participate in performance-based REDD+, and address the question of how to balance multiple objectives of REDD+ benefit sharing. The CIFOR Infobrief identifies the following key lessons:

To enhance effectiveness:

- Set up institutionalized financial intermediaries, to facilitate relations between global-scale buyers and local-scale providers of carbon sequestration and storage, for tasks such as collecting and distributing payments, and promoting the scheme to potential beneficiaries.
- Establish mutually enforcing institutions at various levels from local to national, with a focus on existing governance structures in each country.
- Recognize the need to consider social objectives and the fair distribution of incentives. This can strengthen the legitimacy of the benefit-sharing mechanism and motivate service providers to assist with service delivery rather than undermine the project; this assistance ultimately reduces monitoring costs.
- Divide benefits into upfront payments to cover setup costs and to give an initial incentive for participation, and payments made on delivery of the ecosystem service to ensure adherence to conditionality.

To enhance efficiency:

- Ensure that the benefits distributed cover the transaction, opportunity and implementation costs incurred in service provision. Cost calculation is therefore essential for benefit sharing.
- Set criteria for benefit distribution that appropriately support the objectives of the benefit-sharing mechanism.
- Monitor payments and targeting criteria and adapt them as necessary.
- Consider input-based payments if output-based payments are not feasible because the costs of measuring service provision are prohibitive.
- Bundle individual or household payments for communities and use existing administrative structures in order to reduce transaction costs.
- Consider issuing supplementary policy instruments, as performance-based payments may not be able to compete with the opportunity costs of highly profitable land uses. Focus benefit-sharing mechanisms on areas with moderate opportunity costs.

To enhance equity:

- Allow buyers and sellers to participate in price setting.
- Increase transparency through information exchange among actors.
- Include complaints procedures and dispute resolution mechanisms in the design of mechanisms.
- Define the right to benefit from the ecosystem

Info Brief No. 68 (2014) explores issues related to the debate about who should benefit from REDD+. One rationale put forward is that those “with a legal claim or right (whether statutory or customary)” to carbon should be entitled to benefits (see Luttrell et al. 2013 for an overview of these rationales).

Cash Transfers

CIFOR Info Brief No. 97 entitled ‘The experience of conditional cash transfers: Lessons for REDD+ benefit sharing’ (November 2014) finds that incentives conditioned on socially desired actions have increased in popularity, and conditional cash transfer (CCT) programs have been widely applied in recent decades. These social programs generally transfer cash to poor households on the condition that the households make specific investments in human and social capital.

The November 2014 Info Brief looks at CCT programs in Brazil, Vietnam, Peru and Indonesia and identifies that conditionality is a key element of CCT programs and its use has broad political and social appeal. It finds that the use of intermediate indicators for ease of implementing conditionality and monitoring (e.g. school enrollment or visits to the clinic) may not fully capture the desired long-term outcomes (e.g. learning achievement or health indicators) and the parallel for REDD+ is in choosing between simpler input-based conditionality indicators (e.g. number of trees planted, number of monitoring surveys carried out) or long-term outcome-based indicators (e.g. forest cover maintained, amount of carbon emissions reduced).

The Info Brief also identifies that additionality is an important component of CCT programs, and there is some evidence of positive spillovers on the behavior and consumption of households that do not receive the transfer. The magnitude of these spillovers depends on uptake rates, counterfactual compliance and distribution of the opportunity costs of compliance. It considers that for REDD+, there is a risk of negative spillovers if targeting is perceived as unfair, particularly by those who may be non-eligible because of the non-additionality of their behavior before payments (e.g. forest stewards). Further, the effect of additional cash inflows into a household economy has in some cases led to changes in consumption preferences that can have a negative impact on the environment, and in the case of REDD+, this could result in displacement of forest degradation activities elsewhere.

Key Points emerging from the desk top review of publications

1. Most of the SFM mechanisms developed are specific funds and programmes designed to be effective for achieving the committed targets within a limited period only. There are only seven (out of 48) funds that embrace a long-term time horizon.
2. The policy objectives associated with SFM financing mechanisms are not coherent. It is necessary to enhance access and effective use of existing sources of finance, and create synergies amongst different initiatives in the various intergovernmental fora.
3. The primary focus of existing mechanisms is on capacity building and generating general support in design and implementation of forest policies and projects, with an emphasis on forest carbon. Although socio-economic functions and legal, policy and the institutional framework themes are represented, the extent of forest cover, forest health and vitality and protective functions of forest resources are not covered at all. There is a need for improved integration of private finance with social and environmental public policy to reduce risks and improve returns on investments.
4. High forest cover countries have received the majority of forestry ODA. But most HFCCs with lower rates of deforestation, as well as low forest cover countries and small island developing states do not receive adequate funding. LFCCs and SIDS continue to experience decreases in forestry ODA.
5. Financial resources tend to be channeled to the most profitable activities, which likely place pressures on forest conversion. In some cases, financiers are looking for short-term and high-return activities, but also they tend to be associated with relatively high-risks.
6. Smallholders have limited access to finance compared to large producers due to considerations of transaction costs and risks, which constraints the economic options of small-scale timber extractors and farmers, thus limiting the chances for social inclusion.
7. Obstacles to the mobilization of forest finance include inadequate enabling conditions, insufficient capacities, donor and investor concerns about governance, insecure tenure, illegal activities, currency risk, social and environmental risks, reputational risks, problems associated with eligibility and complex procedures to access external resources.
8. Success in forest finance stems mainly from strong political support; good systems of governance; efficient, robust and flexible implementation; and involvement of forest communities and other stakeholders. Functional and enforceable legal frameworks accompanied by social safeguards are also needed to ensure

property and tenure rights and to interpret these rights so that possible conflicts are avoided from the outset.

9. Addressing demand for commodities driving deforestation is critical to the long-term success of measures to slow or stop deforestation. Demand-side initiatives cannot in practice be delinked from supply-side initiatives. NGOs, civil society groups, certification schemes, governments, producers and managers, investors and financial institutions, should collaborate to reduce the risks and impacts throughout supply chains and at a landscape level. Several initiatives are emerging on the demand-side with a strong emphasis on zero deforestation that have potential to curb deforestation.
10. There is no coordinated and systematic effort to collect and synthesize information on private investment flows in the forest sector and information on private forest financing is scarce and inadequate at all levels.
11. Large-scale investors in agriculture often target countries with weak land tenure security, focus on the poorest countries, and those that are also less involved in world food exchanges and are poorly integrated into the world economy and have a high incidence of hunger. Yet, there are increasing considerations in financial institutions, consumer goods companies and corporations of the risks associated with these investments, and the need for improved governance and infrastructure to realize the benefits of those investments.
12. The biofuel sector has attracted investments in feedstocks, yet with oscillations due to changing targets. Biofuel production is financed by private entrepreneurs, as well as by public financiers (e.g. government subsidies, multilateral development loans and grants, and investments by state-owned companies) and by private financial institutions (e.g. banks, asset managers, pension funds). A large number of private financial institutions are involved often located outside the country where the investments take place.
13. Most private and public financiers involved in investments of agricultural commodities, which are also used for biofuel feedstocks are not yet effectively addressing key environmental and social sustainability challenges. Yet, important progress is undergoing in key crops such as, for example, oil palm and sugar cane, which is stimulating some key international and private financial institutions to adopt sustainability policies.
14. The international community and national and sub-national governments should consider policies that help create the enabling environments, which foster more socially and environmentally sustainable private investment in agriculture by reducing the investment risks, facilitating growing rates of return, and promoting inclusion of smallholders. Habitat destruction and degradation associated with conversion to and intensification of agricultural land is a leading driver of losses of biodiversity and ecosystem services.
15. It is likely that many REDD+ projects will ultimately be PES-like projects. For a PES programme to produce clear and effective incentives, any conflicting market distortions, such as environmentally-harmful subsidies, should be removed and individuals or communities whose land use decisions affect the provision of ecosystem services must have clearly defined and enforceable property rights over the land in question.
16. Benefit-sharing mechanisms are a central design aspect of REDD+. If stakeholders do not perceive the benefit sharing as fair, the legitimacy of REDD+, and support for the mechanism, will be weakened. Benefit sharing must be clearly established and the term "benefit" defined before effective benefit-sharing mechanisms can be designed. One of the most pressing tasks is to develop governance structures and mechanisms to distribute these benefits among stakeholders in an effective, efficient and equitable manner and doing so through multilevel governance structures may improve their effectiveness.

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Annex 1. Thematic elements of sustainable forest management

The seven thematic elements of sustainable forest management described below are based on the nine ongoing regional/international processes on criteria and indicators for sustainable forest management ¹ and have been acknowledged by FAO member countries and the UNFF.

1. Extent of forest resources

The theme expresses an overall desire to have adequate forest cover and stocking, including trees outside forests, to support the social, economic and environmental dimensions of forestry. For example, the existence and extent of specific forest types are important as a basis for conservation efforts. The theme encompasses ambitions to reduce deforestation and to restore and rehabilitate degraded forest landscapes. It also includes the important function of forests and trees outside forests to store carbon and thereby contribute to moderating the global climate.

2. Biological diversity

The theme concerns the conservation and management of biological diversity at ecosystem (landscape), species and genetic levels. Such conservation, including the protection of areas with fragile ecosystems, ensures that diversity of life is maintained, and provides opportunities to develop new products in the future, including medicines. Genetic improvement is also a means of increasing forest productivity, for example to ensure high wood production levels in intensively managed forests.

3. Forest health and vitality

Forests need to be managed so that the risks and impacts of unwanted disturbances are minimized, including wildfires, airborne pollution, storm felling, invasive species, pests, diseases and insects. Such disturbances may impact social and economic as well as environmental dimensions of forestry.

4. Productive functions of forest resources

Forests and trees outside forests provide a wide range of wood and non-wood forest products. This theme expresses the ambition to maintain an ample and valuable supply of primary forest products, while at the same time ensuring that production and harvesting are sustainable and do not compromise the management options of future generations.

5. Protective functions of forest resources

The theme addresses the role of forests and trees outside forests in moderating soil, hydrological and aquatic systems, maintaining clean water (including healthy fish populations) and reducing the risks and impacts of floods, avalanches, erosion and drought. Protective functions of forest resources also contribute to ecosystem conservation efforts and have strong cross-sectoral aspects, because the benefits to agriculture and rural livelihoods are high.

6. Socio-economic functions

The theme covers the contributions of forest resources to the overall economy, for example through employment, values generated through processing and marketing of forest products, and energy, trade and investment in the forest sector. It also addresses the important forest function of hosting and protecting sites and landscapes of high cultural, spiritual or recreational value, and thus includes aspects of land tenure, indigenous and community management systems, and traditional knowledge.

7. Legal, policy and institutional framework

The theme includes the legal, policy and institutional arrangements necessary to support the above six themes, including participatory decision-making, governance and law enforcement, and monitoring and assessment of progress. It also involves broader societal aspects, including fair and equitable use of forest resources, scientific research and education, infrastructure arrangements to support the forest sector, transfer of technology, capacity-building, and public information and communication.

Annex 2. Largest Investors in Palm Oil Sector (2002 – 2011)

Country	Company
Brazil	Petrobras, Agropalma Group, Vale, Galp Energia, Ultrapar
Cameroon	Socfin Group, Herakles Farms,
Colombia	Grasco Group, Grupo Manuelita, Hacienda La Cabana, Bio D, Hacienda La Flores, Palmeras De La Costa, Guaicaramo, Palmas del Cesar, Ecopetrol, Palmaras del Llano, Aceites S.A, Lloreda Group, JASB Group
DR Congo	Socfin Group, Feronia
Ghana	Siat Group, Wilmar International, Norpalm, Global Cheetah Palm Oil, Herakles Farms
Indonesia	Golden Agri- Resources, Wilmar International, Indofood Agri Resources, Bakrie Sumatera Plantations, First Resources, Astra Agro Lestari, BW Plantation, Kencana Agri, Kuala Lumpur Kepong, Gozco Plantations, Genting Plantations, Sampoerna Agro, Sime Darby, Tunas Baru Lampung, Dutapalma, Asian Agri, Musim Mas
Liberia	Sime Darby, Liberian Palm Developments, Golden Agri- Resources
Malaysia	Felda Global Ventures, IOI Corporation, Wilmar International, Tradewinds Plantation, Kulim (Malaysia), Hap Seng Plantations, Sime Darby, Rimbunan Sawit, Sarawak Oil Palms, Jaya Tiasa Holdings, Al-Hadharah Boustead, Kwantas Corporation, United Plantations, Genting Plantations, TSH Resources
Nigeria	Siat Group, Socfin Group, Fri-El Green Power
Papua New Guinea	New Britain Palm Oil, Sipef Group
Peru	Palmas Group, Pure Biofuels
Uganda	Oil Palm Uganda



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