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# COMMITTEE ON FORESTRY

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### PAYMENT FOR ECOSYSTEM SERVICES FOR FORESTS (PES) AND FOREST FINANCING

#### I. INTRODUCTION

1. Forests render many ecosystem services such as mitigation of greenhouse gas emissions, protection of watersheds, conservation of biodiversity, landscape values, and sustenance of critical life forms. While these functions are increasingly being recognized, their economic values are poorly reflected in market considerations. As a result, forests are undervalued and often this leads to their degradation or conversion to other land uses. Payments for ecosystem services<sup>1</sup> (PES) schemes try to correct this market failure through the creation of appropriate economic incentives that enable the transfer of financial resources from the beneficiaries of ecosystem services to those who provide them.

2. The Millennium Ecosystem Assessment (MEA 2005) classifies these services into four broad categories: provisioning, such as the production of food and water; regulating, such as the control of climate and disease; *supporting*, such as nutrient cycles and crop pollination; and cultural, such as spiritual and recreational benefits.

3. In a typical PES mechanism, sellers of ecosystems services are landowners or forest right holders and buyers can be government agencies (federal, state, and local), non government organizations or private individuals and corporations. PES transactions include *public payments* (e.g. federal, state, and local government payments); *voluntary transactions* (e.g. sale of forest carbon offset credits in the voluntary carbon market); *compliance-driven transactions* (e.g. payment mechanisms developed in response to government regulation) or *combined payments* where different sources of funds are pooled to make payments. Payments are made through formal and informal contracts that place financial values on stewardship services and range from one-on-one informal agreements to large-scale public systems that shift economic investments towards desirable land stewardship.

<sup>1</sup> The focus of the paper is on those services of forest ecosystems that render intangible benefits and for which markets are not readily available and do not easily develop.

## **II. PAYMENT FOR ECOSYSTEM SERVICES FOR FORESTS AS AN EMERGING OPPORTUNITY FOR FINANCING SUSTAINABLE FOREST MANAGEMENT**

4. With growing realization among policymakers and the general public of the importance of ecosystem services, including their significant economic value, PES schemes are gaining popularity the world over (TEEB 2009<sup>2</sup>). The recognition of the critical role of forest ecosystem services such as carbon sequestration in addressing climate change has also added further impetus to PES as potential means to generating additional revenues.

5. A growing number of countries have taken significant steps to promote PES. Particularly in Latin America, many countries continue to explore and refine PES leading to development of more and more projects, and some of these efforts maturing to the development of national PES strategies. Over the years, payments have also increased rapidly and continue to increase (Peter and Stanley et al 2013<sup>3</sup>). In other regions, necessary policy frameworks (particularly for carbon) are being developed indicating an overall upward trend. According to SOFO 2014, globally, income from PES amounted to US\$2.5 billion in 2011 and the total number of people that have received payments from PES since 2005 is about 220 million.

6. In countries where PES is a significant policy tool, evidence suggests significant ecological and socio-economic outcomes. In addition to the direct financial benefits they rendered, PES schemes were also reported to have widened livelihood opportunities and income potential for participating communities. These include, for example, the “bridge financing” that allowed communities to choose other income-generating activities. In addition, other positive “ripple effects” noted include increased local economic development and improved natural resource productivity derived through enhanced regulating and supporting services of ecosystems, such as water purification, natural hazard buffering, and flood regulation. In some instances, PES has also contributed to the clarification of property rights and in strengthening the position of rural communities as environmental stewards (Grieg-Gran 2003<sup>4</sup>).

## **III. PROMOTING BETTER SYNERGY AND EFFICIENCY IN PAYMENT FOR ECOSYSTEM SERVICES FOR FORESTS**

7. When segregated according to various forest ecosystem services, the watershed service based PES mechanisms continue to be popular, operating in more than 30 countries and growing rapidly (Bennet et al. 2012<sup>5</sup>). They are predominantly initiated by public good investors like governments and NGOs while private sector involvement is mostly compliance driven. China continues to be the global leader with its massive public eco-compensation investment programmes for restoration of lands vulnerable to degradation.

8. Despite the uncertainty over post-Kyoto Protocol agreements on reducing greenhouse gas emissions, the carbon markets are rapidly evolving on both voluntary and regulatory trading platforms. At the global level, the current emphasis is dominated by strategies for institutional setting geared toward carbon counting and trading. Efforts are also underway to help national governments develop corresponding policy frameworks and strategies (“REDD readiness”). These include, for example, about US\$1 billion multilateral financing pledged through initiatives such as the UNREDD Programme, the World Bank’s Forest Carbon Partnership Facility (FCPF), the BioCarbon Fund and

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2 TEEB 2009. The Economics of Ecosystems and Biodiversity for National and International Policy Makers – Summary. Responding to the Value of Nature.

3 Peters-Stanley, M., Hamilton, K and Yin, D 2012. Leveraging the landscape: State of the forest carbon markets 2012. Forest Trends, Washington, DC.

4 Grieg-Gran, M., Porras, I. and M.L. Moreno 2003. The social impacts of payments for environmental services in Costa Rica. A quantitative field survey and analysis of the Virilla Watershed, IIED, London.

5 Bennett, G., N. Carroll, and K. Hamilton 2012. Charting New Waters: State of Watershed Payments 2012. Forest Trends, Washington, DC. Available online at <http://www.ecosystemmarketplace.com/reports/sowp2012>.

the Forest Investment Program. These efforts also include various bi-lateral arrangements such as Norway's US\$1 billion contribution to Indonesia. Globally, the value of voluntary forest carbon projects in 2011 stood at US\$188 million covering 17.8 million hectares (Peters-Stanley et al. 2012). There is however, wide variation in investments both across and within regions, with Latin America topping the list. Overall, forest carbon offset projects are still in testing and exploration phase.

9. PES schemes for biodiversity services range from protection of entire ecosystems and natural habitats to specific species or genetic resources. They could also take the form of conservation concessions or bio-prospecting projects. Forest landscape and recreational services are associated with aesthetic, cultural or other unique aspects of a given area and often involve the protection of natural heritage sites, wildlife sanctuaries, and coastal areas. Although the governments are the main suppliers of both the above services, and traditionally enable them through the system of protected areas, local communities and indigenous people are increasingly being involved in their management. Ecotourism and recreational urban forestry are also gaining importance in many developing countries and emerging economies.

10. More and more PES schemes are trying to combine other ecosystem service payments either on a conceptual basis (where co-benefits are assumed but are not quantified and monetized) or in actual implementation (where different service provisions are verified and accordingly paid). This concept of bundling PES has particularly become prominent after the onset of forest carbon markets as the existing schemes see a strong possibility to augment finances through carbon offsets. Besides helping to reach environmental objectives more efficiently, bundling could lead to substantially reducing the transaction costs. For reasons of economies of scale and efficiencies in marketing, bundling is also supported and encouraged by intermediaries operating between buyers and producers of ecosystem services. More importantly, in the actual implementation of PES, many countries and organizations have adopted a portfolio approach to raising financial resources, including bundling and leveraging other programmes, by articulating how rebuilding ecological infrastructure could contribute to a wide array of broader development objectives - from climate change mitigation to poverty alleviation to provision of safe drinking water.

#### **IV. CONTINUING CHALLENGES**

11. Despite these growing opportunities, globally, the efficacy of PES as a major means to addressing the challenge of financing SFM continues to be inadequate and uneven. Many PES initiatives are currently unsustainable without regular and strong external support. The average revenues obtained from PES are still too low in many countries to act as real incentives for landowners to join PES programmes enthusiastically. Major factors that continue to hinder their proper uptake as well as their scaling-up include the limited recognition of the values of forest ecosystem services in public policy and financial decision making and the absence of enabling environments that promote internalization of such values.

12. Key elements of such deficient environment include inadequate policy and institutional support for targeted investment portfolio development and low organizational capacities. Lack of skills for proper market analysis and development, huge initial upfront costs, a heavy dependence on donor/external support in the initial years and high transaction costs are some other hurdles. Carbon related PES mechanisms including REDD are constrained by the complexity of rules, absence of widely accepted standards, unclear tenure and property rights and uncertainty over long-term sustainability (Peters-Stanley et al. 2012).

#### **V. KEY ENABLING ELEMENTS TO PROMOTE PAYMENT FOR ECOSYSTEM SERVICES FOR FORESTS**

13. FAO, along with other members of the Collaborative Partnership on Forests (CPF), has been assisting countries to address some of the above challenges and promote PES as a key forest policy tool for increasing financial resources for SFM. In April this year, an International Forum on PES for tropical forests was jointly organized by FAO, the International Tropical Timber Organization (ITTO), and the Government of Costa Rica. It highlighted the importance of developing and implementing

robust and sustainable PES mechanisms in tropical countries and to share best practices and lessons learned to scale up global efforts to promote PES. It also called upon the governments, civil society, the private sector and the international organizations to work together to create enabling conditions at all levels to enhance PES.

14. As part of the support process to PES, case studies analyzed by FAO underline the need for strong political support, good systems of governance, and efficient and flexible institutional capacities as pre-requisites for successful PES schemes. These examples also demonstrate that for enhanced public sector support to PES, the ecosystem services benefits of forestry need to be strongly linked to broader development goals such as poverty alleviation and rural employment. Countries that have pioneered PES initiatives focused on proactively recognizing and enhancing the economic values of forest products and services by creating and supporting a level-playing field for the forest sector vis a vis other sectors.

15. Overall, it is apparent that establishing and managing strong, viable and long-term PES programmes requires an adequate policy framework and substantial institutional as well as organizational capacities. Key enabling elements include:

- a) well-defined tenure and property rights mechanisms to resource security;
- b) codes, standards, and other legal structures that reduce risk and uncertainty;
- c) inclusive policies characterized by an ethic of equitable stewardship and benefit sharing to promote local community interest and their active involvement;
- d) appropriate multi-stakeholder platforms and institutional structures that allow the forest sector to be mainstreamed in national planning and financial decision-making.

16. PES schemes also require substantial administrative and communication skills of the forest administrations to undertake necessary advocacy and communication to mobilize required political will and actions. To be highly innovative and adaptive, the organizations are required to have:

- a) availability of timely and reliable data on forest resources and their contribution to society;
- b) adequate knowledge of financing language, instruments and processes, and a strong inclination to innovate and adapt new financing instruments and mechanisms; and the
- c) ability to engage other sectors, particularly the private sector, and other top levels of administrations.

## **VI. POINTS FOR CONSIDERATION**

- The Committee may wish to invite countries to strengthen their efforts to promote PES and scale up successful initiatives that can generate significant positive social and economic outcomes;
- The Committee may wish to recommend that FAO support member countries in:
  - enhancing the effectiveness of current PES programmes, including progressive establishment of markets for PES.
  - strengthening necessary capacities of forestry institutions engaged in PES to enable them develop successful PES initiatives.
  - developing common definitions and understanding of the legal implications of PES (such as ownership, rights and duties, additionality, reference levels and thresholds).
  - promoting global and regional knowledge sharing on best practices and lessons learned and foster necessary cooperation to promote PES.