Opportunities and risks associated with PES

PES should not be seen as an end in itself but as a policy tool with several advantages and opportunities:

- One of the foreseeable advantages of the successful implementation of PES schemes is to maintain a sustainable supply of non-market forest services. PES can serve as incentives for the providers of forest services for managing forest following a multifunctional approach and keeping constant or increasing the supply of services without any loss. Forests can be managed in sustainable way, conserving the biodiversity and developing the multifunctionality of forest stands. And in this point appears the strength of PES schemes - the buyer of ecosystem services supports the ecosystem services provider by payment, which might compensate a shortfall in timber production. PES might play a role considering the increasing societal demand of non-marketed forest services.
- The voluntary character of PES can be considered as a weakness in some cases and still, in some other cases as a strength. PES instruments, because of their voluntary nature, offer a less prescriptive and coercive approach and therefore may be a more feasible instrument in practice in some situations, especially it seems to be most effective in private PES schemes. Voluntariness provides flexibility in decision making. The voluntary nature of PES gives the opportunity to negotiate deal details between stakeholders without any restrictions and limitations (within the boundaries of legislation). It represents an opportunity to engage previously uninvolved actors (especially in the private sector) in conservation activities. Their behavioural changes are promoted with positive incentives rather than coercion, more likely leading to transformational change.
- Focus on payment schemes has contributed to attract political support for conservation, but also to commodify a growing number of ecosystem services and to impose market logic in tackling environmental problems. The easily understood PES arrangements have already been shown to be useful tools in raising awareness about environmental issues with the general public.
- PES brings opportunities for actions on political-institutional systems and enterprise development for innovation and enhancement of the marketability, as well as the development of direct sales of previously non-marketed non-wood forest goods and services.
- Funding for environmental protection in most countries is done by complex systems of tax, subsidy, penalty and budget. Compared to other resource management approaches, PES schemes are often recommended as being more flexible, more easily applied and more cost-effective, allowing high customization to local circumstances. PES makes a simple link between the use of an environmental service and the payment, which goes directly to providing it. Any system like this which can be easily grasped by the public, the media and opinion formers can be immediately seen to be 'doing good' in environmental matters - forests are saved.
- Although PES programs are not designed for wealth redistribution, there can be important synergies with social aims when program design is well thought out and local conditions are favourable. This might specifically support the European policies for rural areas. PES offer distributional benefits, if communities can improve their livelihoods by offering and selling their ES and through access to new markets.
- Besides providing funding to land users, PES schemes may also provide non-monetary benefits such as training, specialist advisors, infrastructure improvements or technical support. Furthermore, PES schemes bridge the interests of landowners, resource users and nature protection, and can therefore be seen as an efficient tool to address a set of problems. Rural communities can benefit from increased knowledge of sustainable resource use practices that are usually connected to PES through the provision of training

and technical assistance. However, it is not well understood whether or not these potential benefits are realised in practice, or how they depend on scheme design.

- PES provides a potential platform to integrate conservation and climate efforts into a common policy framework, and facilitates the transition from an economy of production to an economy of stewardship.
- Being involved in a PES offers a publicity boost for the companies involved. This is a benefit for the company involved, although it may mean that the reputation of PES may rise or fall with the reputation of these high-profile companies.

On the other hand, various difficulties and challenges can be recognized in the implementation of these new financing mechanisms, that can partly be explained by being in early stages of the innovation process and by the weak support provided by the institutional system. The coverage of the initial costs of such initiatives also often forms a bottleneck. However, we should not forget that we still operate in a field where the marketability is and will stay restricted, at least to a certain extent. The most common risks are associated with following:

- The definition, understanding, measuring and economic assessment of ecosystem services at appropriate scale and precision remains a basic challenge for the implementation of payment mechanisms. While this requires appropriate scientific knowledge and technical competences and skills, it also builds on stakeholder consultation. Besides the site-specificity of services, the sharing of knowledge and experiences can help reducing costs and promoting a more efficient approach to the study of ecosystem services and the implementation of payment mechanisms. Information can also allow the development of an accounting system focusing not just on ecosystem service flows, but also on the natural capital (stock).
- A pre-requisite for establishing a payment scheme is the existence of institutional and political support. The application of a specific payment scheme depends on the interest and willingness of involved actors, laws and regulations in place and sufficient financial resources. In general, society may be willing to pay for non-wood forest goods and services, but operational mechanisms supporting valuation and financing remain comparatively rare due to low interest or limited information and are not fully reflected in forest policy. These shortcomings should be made more explicit to policy-makers while exchange between countries/regions on practical examples could be used to devise clear guidelines for implementation of successful mechanisms.
- Constraints in the creation of markets are often related to high transaction costs (include the cost of identifying and selecting service providers, attracting potential demand/buyers, negotiating and developing contracts, training, monitoring, reporting and follow-up activities, etc.) and/or the legal and socio-economic framework, such as the open access to forests and everyman´s right. Also, people may misperceive the distribution of ownership rights of non-wood forest goods and services and expect to use them for free even when this is not legally the case, or they may regard them as valuable but expect them to be paid from public budgets.
- Another potential problem for the implementation of PES is weak ownership and tenure rights of forest land. Forest tenure must be clearly defined and recognized and the ecosystem service provider must hold the rights of the service as a pre-condition for PES. This is because if property or use rights are unclear, the buyer of the service cannot define the conditions of payment. This condition is strongly connected with forest and other wooded land ownership. Changes in land management rules and regulations may also have a significant impact on ecosystem service delivery and the PES.
- Failure to monitor the effectiveness of the compensation schemes, including risks of not fulfilling the performance condition. Inappropriate or absent monitoring and evaluation of PES is commonly referred to as a strong limitation to identifying both their direct and indirect impacts on both human (i.e. socio-economic) and environmental systems. Yet,

unless contract compliance is both credibly monitored and enforced, contracted landowners may receive payments while continuing business as usual, that is, profitably defecting on their contractual obligations. Monitored and enforced conditionality is necessary to make PES function as effective incentives for conservation.

- There is also the concern that tapping new income sources is particularly difficult for small land owners who may lack the resources for developing the necessary marketing skills, cover their administrative burdens, etc. This calls for special attention and possibly additional support from governments, land owners and NGOs alike when attempting to apply MBI.
- It is also argued that PES may become counterproductive. Assume that the service was supplied as a matter of course and as a social obligation for free. When a system of payment is introduced to guarantee quantity and quality of service, the logic has changed. If the payments are now seen as insufficient, appeals to social obligation will be useless.
- A number of successful examples for the application of PES mechanisms seem relevant, promising and feasible for the support of forest goods and services but their potentials are still not fully utilised and studied. Their real potentials and limitations can therefore not be assessed reliably. The lack of knowledge includes questions regarding the role of institutional actors in the development of MBI and in the support of innovation processes. It seems that improvements not so much depend on the development of new mechanisms but more on an increased use of knowledge and established mechanisms and their proper implementation.
- Whilst the emphasis of PES has always been on improving the quality and sustainability of environmental systems, it would be easy to label the contributions of companies as conscience money, paying for irreplaceable environmental damage. It is also sometimes argued that PES schemes can be unfair and can provide perverse incentives where payments go to those who have degraded or threaten to degrade their land, rather than those already sustainably managing it. It will be the job of any future PES scheme to address and allay such fears which will undoubtedly arise. Trading schemes will be particularly vulnerable to this criticism.
- The ecosystem service paid in the PES scheme may not be the most vulnerable, or most vital, service in the region, however it will benefit due to its fortunate proximity to an identifiable user. PES tends to favour environments located in populated regions rather than, remote areas which may be under more environmental stress.

PES policies represent a growing trend in conservation policy. By altering private incentives to induce desired outcomes, PES schemes offer a direct, and possibly more equitable, method for achieving environmental outcomes than other approaches. However, the context in which a PES initiative is implemented matters greatly for effective policy design and the achievement of stated goals.

Whilst the above has made the case for the usefulness and application of PES, it must be acknowledged that this approach does not exist in a vacuum and will need to 'win the hearts and minds' of the governments, private sector and the general public in the countries where it could be adopted. The importance of context in achieving policy goals emphasizes that no single policy exists which would suit every scenario. Previous experience with incentive-based approaches suggests it is unlikely a PES approach will always be able to simultaneously improve livelihoods, increase ecosystem services, and reduce costs. Potential trade-offs among these goals can be assessed reasonably well by considering the correlation between characteristics of poor landholders and their land, characteristics of the costs and benefits of providing ecosystem services, and the political feasibility of various policy options. Special attention should be paid to securing tenure rights, because land-use is often the basis for schemes which normally compensate a restriction of land-use or finance specific management measures on a specific type of land.

Current knowledge and experience also suggest other areas in which additional research is needed. Several PES projects that have been running in developing countries for some time are starting to offer promising findings about the use of PES mechanisms. However, new projects will only be able to learn from the successes and failures of their predecessors if the manner in which outcomes relate to the environmental, socioeconomic, and political contexts of the policy are systematically documented and compared across a range of cases. More long-run experience, rigorous program evaluation will provide additional understanding of the effectiveness of different policy designs over time, as well as information on how PES schemes respond to exogenous shocks. Collaborations between ecologists and economists can better specify the production function for ecosystem services. Communication actions should not only be directed at ecosystem providers or buyers; they also should target decision-makers and the general public because political support is often needed, especially during the early phases of development. Pilot projects are often a good way to demonstrate the relevance of PES and show results. This information will improve the design of input proxies and reduce the uncertainty surrounding environmental effectiveness. More research is also needed on how incentive-based mechanisms can account for potential trade-offs and synergies in the production of multiple ecosystem services. Additional analysis of large-scale PES policies can help us to understand the broader effects on the economy from scaling-up PES schemes.