



Salvadoran Research Program on
Development and Environment

Compensation for ecosystem services: Directions, potentials and pitfalls for rural communities

Susan Kandel and Nelson Cuéllar

Current perspectives on PES-CES¹

According to Millennium Ecosystem Assessment, ecosystem services are the benefits that ecosystems provide and are classified as services of provision, regulation, cultural and of support (Working Group on Conceptual Framework of the Millennium Ecosystems Evaluation, 2005). The services of provision are the products that the people obtain from the ecosystems, like food, fuel, fibers, water and other resources. Regulation services refer to the benefits that people obtain from the regulation of processes by ecosystems such as, air quality maintenance, climate regulation, erosion control, human diseases regulation and water purification. Cultural services are the intangible benefits that the people obtain from the ecosystems by means of the spiritual enrichment, mental development, aesthetic reflection, recreation and experiences. Support services refer to those processes necessary for the production of all the other ecosystems services, like the production of raw materials, oxygen production and the formation of soils.

The development and thinking on PES-CES has been influenced by a variety of factors, not the least has been the growing awareness of the importance of environmental sustainability, new thinking on poverty-environment links and growing recognition of the poverty dimension of ecosystem well-being². This, in turn, has prompted growing efforts – particularly by multi and bilateral aid agencies as well as development NGOs - to promote and design PES-CES mechanisms in rural communities that address both environmental and poverty reduction goals. The plethora of PES-CES schemes have led to both further learning, but also questioning of and resistance to PES-CES by many indigenous and peasant communities, who fear these schemes will only led to further commodification and usurpation of the natural resources that they depend on.

¹This section is based on a presentation prepared by Nelson Cuéllar, Susan Kandel, Herman Rosa and Barry Shelly, entitled “Pro-Poor PES-CES: Where will the current direction take us?”.

²For a description of this relationship see among other excellent references: Millennium Ecosystem Assessment: Ecosystems and Human Well-being - A framework for assessment (September, 2003); The Wealth of the Poor: Managing Ecosystems to Fight Poverty (United Nations Development Programme-United Nations Environment Programme-The World Bank-World Resources Institute, 2005).

The theory and practice associated with compensation for ecosystem services (CES), or more commonly referred to as payment for environmental services (PES), is advancing rapidly, the likes of which are clearly reflected by the breadth and scope of this issue throughout the world. In this article we reflect on these advances and attempt to provide a brief analysis of the current direction CES is taking, as well as draw attention to some serious pitfalls and dangers associated with maintaining the current trajectory.

Payment for environmental services has rapidly gained worldwide attention as an instrument for promoting conservation and addressing rural poverty, nevertheless, the practice has demonstrated that these schemes have important limitations. It is crucial to take a closer look at these limitations, given the renewed interest and hasty adoption of such schemes in an attempt to secure ecosystem services of global interest, as is the case with emerging schemes for mitigating climate change based on Reduction of Emissions by Deforestation and Degradation (REDD). This is particularly pertinent as REDD schemes are primarily being developed based on conventional PES mechanisms.

As well as presenting a summarized characterization of PES-CES schemes, this work underscores the potentially dangerous direction that these schemes are currently taking worldwide, and offers elements for an alternative approach for ensuring the development of CES schemes that simultaneously benefit poor rural communities while enhancing the ecosystem services provided by rural landscapes.

While there are a variety of ways to try to categorize and analysis PES-CES, we have chosen to focus on the different views academicians and practitioners have adopted with regards to the objectives of PES-CES.

Through a review of both practice and theory, we have distinguished four perspectives, in a spectrum that begins with its use for solely conservation objectives to the incorporation and use for social (in particular, poverty reduction) objectives. In actuality, the division between objectives is often blurred, therefore, the four perspectives we present are archetypes (in that they serve as a conceptual tool for defining a broad spectrum of perspectives and objectives).³

In the review of cases and literature related to PES-CES, the following four perspectives were identified with regards to the underlying objectives of PES-CES schemes:

- Perspective 1: The objective of PES is conservation; poverty reduction is not and should not be a goal of PES.⁴
- Perspective 2: The primary objective of PES-CES is conservation; however poverty reduction can be a secondary objective.
- Perspective 3: PES-CES is a tool for both poverty reduction and sustainable natural resource management, within the constraints of the market.
- Perspective 4: PES-CES can be a tool for rural development and ecosystem management by contextually embedding it

Further understanding of the basis of each perspective

Perspective 1. The first perspective, *PES is only a conservation tool, poverty reduction is not and should not be a goal of PES*, is based on the

premise that PES is designed to be a market mechanism for conservation. Therefore any special market interventions designed to provide additional marginal benefits to poor stakeholders will impede efficient market functioning and thus reduce the conservation benefits to all stakeholders--including those who are poor--and to society in general. This perspective considers any effort to harness ecosystem service markets for poverty reduction to be counterproductive to both the central conservation goals, as well as any poverty reduction objectives that have been tacked on. Moreover, this perspective would argue that to the degree that poor stakeholders benefit from ecosystem service markets, poverty may be reduced, but this will happen only as a by-product of conservation-focused markets.⁵

Perspective 2. The second perspective, *PES is primarily a conservation tool, however poverty reduction can be a secondary objective*, is based on the recognition that very often poor producers of ecosystem services will be unable to maximize the benefit and minimize the risk of PES programs without assistance and training to enable them to better gain access to and leverage in these markets. Thus, while conservation is maintained as the overriding goal, relevant actors should make special efforts to help poor households and communities avoid potential negative effects of PES programs and capitalize on the new opportunities to enhance their welfare and thus, where possible, to reduce poverty.⁶

Under this perspective one could expect PES to serve both environmental and social goals if the potential producers of ecosystem services are poor land users living in agricultural, forest, and/or upper watershed landscapes where there is an identified demand for ecosystem services. Additionally, the conditions would have to favor the possibility of integrating these poor land users into the ecosystem services market without

³ And more importantly, the perspectives do not necessarily represent the expressed intent of those whom we attribute the positions to.

⁴ Further on in this article we clarify why we have chosen to refer to this perspective as solely PES, and not PES-CSE.

⁵ The Forest Carbon Market in British Columbia and the United Kingdom Emissions Trading Scheme (ETS) are a couple of concrete examples of the application of this perspective.

⁶ Costa Rica's national PES program after 2002 is an ideal example in the application of this perspective, with the incorporation of agroforestry in the types of ecosystems eligible for PES.



the need to institute remedial strategies that go beyond the training and marketing assistance that fall within the scope of PES. This last caveat, where favorable conditions offer minimal barriers to market access for poor producers of ecosystem services, belies a host of preconditions that essentially preclude poor landholder's participation in PES schemes. These preconditions include, but are not necessarily limited to: clearly defined property rights; sufficient biophysical knowledge available to make the link between land use and the production of ecosystem services in the landscape in question, so that clear conditionality is assured; the smallholders are effectively organized in larger associations in order to reduce the transaction costs to a feasible level; the 'producers'/sellers' willingness to accept (WTA) is less than or equal to the buyers' willingness to pay (WTP); the cultural values of the poor landholders do not offer substantial resistance to what many actors might perceive as a commodification of natural resources.

Perspective 3. The third perspective, *PES is a tool for both poverty reduction and sustainable natural resource management, within the constraints of the market*, is best summed up by the observation made by Pushpam Kumar in his 2005 paper on *Market for Ecosystem Services*. “[N]o markets for ecosystem services seem to contribute substantially to poverty alleviation programs and policies unless *proactive* efforts are made to recognize rights and shape markets to provide equal access to low-income producers of ecosystem services.... *Innovative institutions* are an absolute necessity for the functioning of the market for ecosystem services.... Formal and informal institutions besides the effective legal framework are needed because they substantially reduce transaction costs and financial risks”.⁷

There are numerous theoretical and practical examples of this perspective, including the work of Landell-Mills and Porras⁸ who propose a seven point agenda to ensure that environmental service

markets favor the poor. Similarly the UNEP spell out that, “[i]t is important to make sure that the poor are not marginalized or see a drop in their overall well-being when ecosystem services are priced and/or marketed; ii) If the poor are the users of ecosystem services, then there must be compensation mechanisms that will lessen the burden on the poor if they have to pay for services that they used to have for free; iii) Pro-poor objectives should be an integral component of conservation and sustainable use of ecosystem services.”

PASOLAC for many years promoted PES initiatives in Honduras, El Salvador and Nicaragua. However, as in the second perspective, the ability of poor landholders to benefit from PES schemes requires the same long list of favorable (pre)conditions. Yet, in contrast to the second perspective, proponents of this third perspective consider integrating poor land users into the ecosystem services market through proactive complementary programs to assure market access. Under this logic, PES can result in both conservation and poverty reduction goals if the conditions offer minimal barriers to market access for poor producers of ecosystem services.

Perspective 4. The fourth perspective, *PES can be a tool for rural development and ecosystem management by contextually embedding it*, differs substantially from the three previous perspectives by taking as a point of departure the particular context in which a PES scheme is situated. Proponents of this perspective attempt to effectively embed PES scheme through the strengthening of a combination of natural, social and human capital, to ensure it benefits poor communities. In contrast, the first three perspectives tend to be limited to a more conventional market framework, and



⁷Pushpam Kumar (2005). *Market for ecosystem services*. IISD. Italics and underline added.

⁸Landell-Mills, Natasha and Ina T. Porras (2002). *Silver bullet or fool's gold. A global review of market for forest environmental services and their impact on the poor*. Instruments for sustainable private sector forestry series. IIED, London.



generally implement predefined design principals that often do not adequately take into account the corresponding context. For proponents of this fourth perspective, it is crucial to understand the context for designing a pro-poor PES scheme, and particularly look at the institutions of property rights and collective action, the latter of which is related to the stocks of social and human capital. Also, of key importance are the actual characteristics and conditions, in terms of quality and quantity, of the natural resource asset base of a specific territory. Indeed proponents of this perspective would argue that not taking into account anyone of these dimensions could lead to designing PES mechanisms that deepen already existing inequities.

This fourth perspective recognizes the dictating contextual restraints, and indeed, as Swallow, Meinen-Dick and van Noordwijk point out: “[o]ne of the greatest benefits of environmental service reward systems may lie not so much in the payments themselves, but in stimulating a change in attitude toward poor smallholders in environmentally sensitive areas: a shift from the state as protector to the smallholder as steward.” Proponents of this perspective include academicians and practitioners working in a variety of organizations, such as: the International Association for the Study of the Commons (IASC), RUPES (Rewards for, Use of and shared investment in Pro-Poor Environmental Services) a program of the World Agroforestry Centre, and DANIDA (the Danish aid agency who financed a study to understand in what contexts favor implementing pro-poor PES and in what contexts would it be difficult to implement pro-poor PES).



Concerns regarding the direction PES is headed

Given that the current direction of PES is overwhelmingly dominated by the first three perspectives, all of which subscribe to a market framework, it is fair to say that many “conventional wisdoms” appear to be widely accepted. This framework of PES is currently being defined and institutionalized and may easily lead to a path dependence where new institutional arrangements favor conventional PES approaches and alternative approaches are marginalized. This, in turn, leads to the very real risk of missing a golden opportunity to effectively address both environmental and development goals. Even more alarming is the possibility of deepening poverty, inequality and degradation, given PES ability to significantly alter rural landscapes and the institutions for natural resource management and rural development.

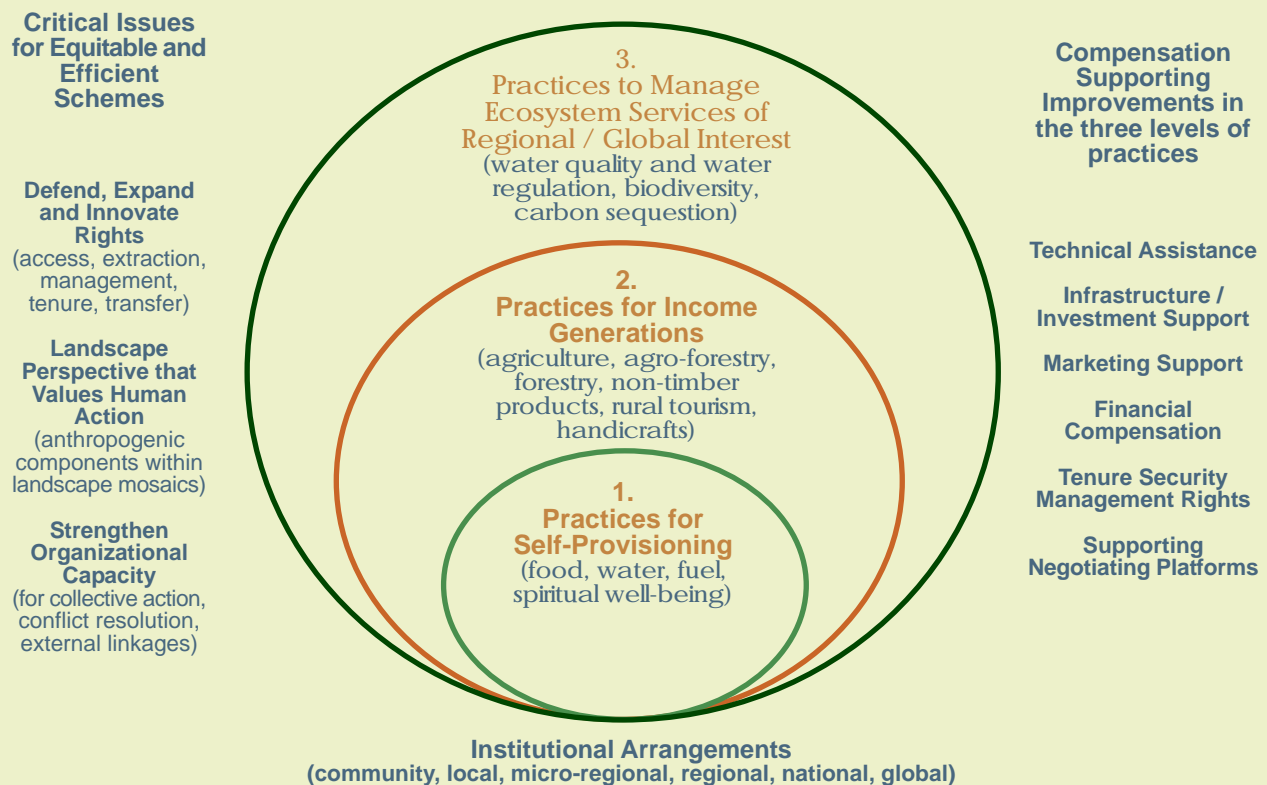
It is crucial to develop, promote and institutionalize alternative approaches and perspectives that guarantee that any PES program, in an area where there are poor households and communities, be pro-poor. Moreover, any sustainable development program in an area where poor communities support the production of ecosystem services must promote recognition of the social value of these services. PES is a route for recognizing this social value. Indeed, PES could be a potent tool for developing sufficient social and human capital to ensure that the provision of ecosystem services benefit the poor. However this requires new thinking with regards to PES, one should not be trying to find those few and far between landscapes where the contexts are favorable enough to allow PES to benefit the poor, but instead one should be looking at how to strategically develop PES-CES to ensure that its design and institutional framework always contributes to the sustainability of both rural livelihoods and ecosystem services.

Toward an alternative perspective of CES

To develop PES-CES schemes that always contribute to the sustainability of both rural livelihoods and ecosystem services, it is important to first recognize that a large range of ecosystem services that are of importance both locally and globally originate from rural territories in developing countries where many of the world's poor are located. Accordingly, it is important that PES-CES schemes be part of a broader rural territorial development process, in which PES-CES is considered as an important tool for revaluing rural landscapes and communities as well as for empowering communities' governance over the territories they inhabit. The viability, and therefore, sustainability of a territorial management process requires that it is relevant to the livelihood strategies of its inhabitants. With this said, in order to develop PES-CES schemes that always contribute to the sustainability of both rural livelihoods and ecosystem services, it is

important to understand the relationship rural communities have to the natural resources and ecosystems surrounding them. PRISMA's publication "Compensation for Environmental Services and Rural Communities: Lessons from the Americas and Key Issues for Strengthening Community Strategies" presents a framework that identifies three different levels and logics behind community management of the natural resources in their territories (see Diagram). This framework is useful because it highlights the preoccupations and logics behind the practices rural communities adopt for managing the natural resources in their territory, which is particularly relevant for poor rural communities, whose livelihoods depend more directly on the natural resource base. Indeed, for the rural poor, natural resources represent their main source of food, energy (firewood) and water, as well as of other key products, such as medicinal plants and fibers.

Diagram: A Conceptual Framework for Compensation for Ecosystem Services and Rural Communities



The first level of community practices for natural resource management (*practices for self-provisioning*) is guided by a concern for ensuring basic needs (food, firewood, water, medicinal plants, fibers and spiritual well-being).

The second level of community practices of natural resource management (*practices for income generations*) is concerned with earning an income based on their production and natural resource management strategies (agriculture, agro-forestry, forestry, non-timber products, rural tourism, handicrafts). More specifically, it refers to production practices that incorporate distinct environmental attributes or services into the production processes, in an effort to gain greater entry into or better prices on the market. In some cases community production strategies already incorporate environmental attributes; in which case the principal effort is one of marketing, to make those attributes explicit.

The third level of practices (*practices for manage ecosystem services at regional/global interest*) seeks to expand production strategies, and is often linked to ecosystem services provision (such as water for urban areas or power generation, biodiversity, carbon sequestration, etc.). At this third level, outside recognition of the ecosystem services is not expressed in a product that brings price premiums on the market. Instead, the challenge is more one of finding other compensation mechanisms that recognize particular ecosystem management practices that enable guaranteeing the ecosystem services of interest to the outside stakeholders or “consumers.” It is critical from an equity perspective that the second and third levels of ecosystem services do not ride roughshod over the first level, but seeks to build upon and support the first level.

Given the three levels of community practices for the provision of ecosystem services, it is useful to consider various institutional design arrangements nested together, each with its own particular concerns and priorities. The first level of self-provisioning refers to institutional arrangements at the local – community level, and needs to take into account the existing norms and rules established among the community for resource management. The design needs of the local institutions should emphasize the facilitation of agreements among the community with regards to land use and management as well as internal distribution of compensation schemes that ensure that the self-provisioning needs of each member of the community is taken into account (particularly the most vulnerable members such as landless and woman). The local institution must grapple with facilitating long-term agreements within the community for each member’s claims with relation to rights.

An important entry point for facilitating agreements is to begin with an assessment and clarification concerning the different attributes associated with property rights (access, extraction, management, exclusion, alienation). This type of exercise allows for recognition and innovation among community members, whether landless or landholders, in understanding and defining their roles in natural resource management. It can also help to strengthen their recognition as stewards vis-à-vis other important actors that have some sort of property claims (eg. absentee landholders, State agencies, etc.). The strength of the agreements reached at this level is crucial before moving on to reaching agreements at a larger meso or landscape scale. These agreements are necessary for the provision of many key ecosystem services as well as bolstering negotiating platforms of local actors *vis-à-vis* external actors (national – international level actors, programs, institutions and/or entities).

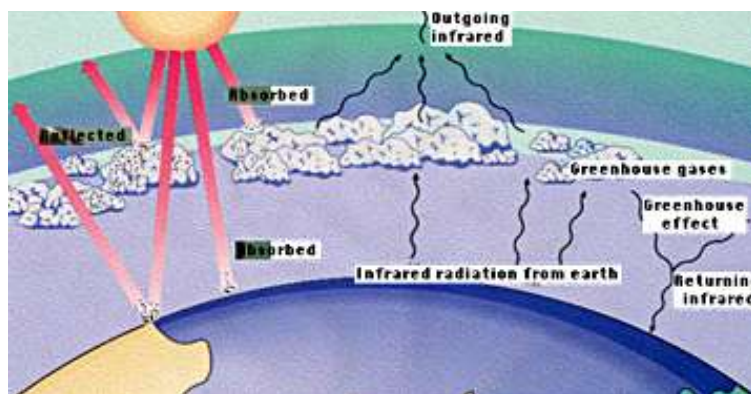


Natural resource management practices for income generation / production strategies requires designing institutions that facilitate greater visibility and scaling up. Thus, the institutional design should be micro-regional and/or regional in nature, and will need to promote nested relations for building territorial level planning processes. Moreover it will need to build on and respond to the combination of community level institutions in order to implement, discuss, agree and monitor the services as well as design an appropriate packet of individual and community-territorial compensations. This requires substantial social capital and processes of negotiation.

Social capital – understood as the capacity of a community to use its organizational structure to discuss, agree, implement and monitor actions and activities among its members; and the communities’ abilities for securing resources (knowledge, collective action, market access, etc.) as the result of their belonging to social networks and other social structures - is key for fortifying production strategies at this level. As pointed out by Brent and Swallow, it serves to lower transaction costs, as well as guarantee external networks needed for commercialization, accessing markets, certification of practices and

products, training, specialized technical assistance, etc.

The third level of ecosystem services encompasses the more traditionally recognized forms as ecosystem services (such as carbon sequestration and biodiversity conservation) where the practices are responding to regional and/or global interests. Accordingly, the institutional arena is national, regional or international, but the critical issue with regards to institutions is guaranteeing the participation of rural communities in the rule-making process. However, experience in PES schemes to date show that the international and national institutions that govern PES are often designed in ways that exclude, instead of include, individual smallholders and communities. However, the ability for poor rural peasants, indigenous peoples and forestry communities to influence rule making at this level is clearly tenuous at best. Accordingly, it is imperative that the institutional design deliberately strengthens rural communities negotiating platforms *vis-à-vis* other national and international actors (which have much more political and financial clout). That means the rules of the game need to explicitly take a pro-equity position in the promotion of CES schemes.



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www.prisma.org.sv prisma@prisma.org.sv
3a Calle Pte. #3760, Col. Escalón, San Salvador, El Salvador
Tels.: (503) 2298 6852, (503) 2298 6853 Fax: (503) 2223 7209