

Part Two: Papers Presented





THE WHAT, THE HOW, THE WHY, AND THE WHERE OF ENVIRONMENTAL SERVICE PAYMENTS

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Abstract

Environmental service payments or rewards for environmental services have now gained wide support in various parts of the world, particularly in areas where critical natural resources are under serious threat. This approach is a more direct way of dealing with environmental problems compared to the previous mode of providing development intervention as an indirect means to arrest environmentally destructive activities. Others¹ now label this latter approach as a form of “intervention by distraction” since the main thrust is the provision of income opportunities to resource dependent communities to lessen their dependence on these natural resources. Evidences seem to show that this expectation was generally not met as people tend to view the development assistance as a complement to existing activities rather than a substitute. The experience with environmental service payments in the Philippines is still very limited. The scheme, however, appears to be quite suited to Philippine conditions where the strong involvement of the resource-based communities on environmental service provision is a must. However, this can happen only if the beneficiaries of these services will be brought into the picture as active participants. Having the government provide for these services is no longer possible, nor is complete reliance on external funding sustainable. Still, there are many conditions and challenges that need to be met to implement a working environmental service payment scheme.

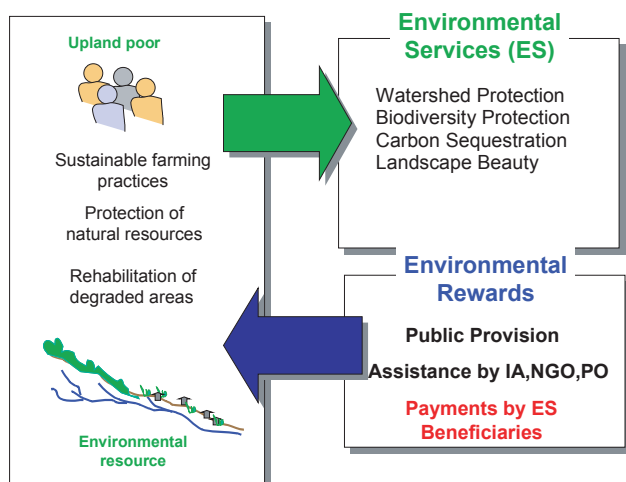
1. What is an Environmental Service Payment Scheme?

“Payment” in the true sense of the word involves transfer of cash (or goods in a barter economy) in exchange for goods or services, usually occurring in a market setting. This definition is quite limiting, however, when one speaks of environmental services (ES), as different forms of payment exist in the “production” of such services (**Figure 1**). Upland communities, collaborating in the implementation of forest/watershed management projects, could be paid or compensated in terms of wages for services rendered, provision of free planting materials, conduct of skills training, technical assistance, and tenure security, among others. In this context, payment takes the meaning of reward.

This paper argues, however, that payment involving cash that is linked directly to the provision of ES is the only meaningful transaction that qualifies under an environmental service payment scheme. This means that providers should be aware that their receipt of payment is anchored on their delivering the ES or that sustained payment will come about only from sustained provision of the ES. Payments for labor in a project, in cash or in kind, are income payments linked with rendering service for a particular activity in reforestation or land rehabilitation projects. This type of contractual payment arrangement is short-term and does not necessarily instill in those rendering the job/service that the activity they are engaged in is linked to the “production” of an economic good, i.e. environmental services. The obligation is, therefore, short-term and oftentimes, the ‘production’ of ES is short-lived.

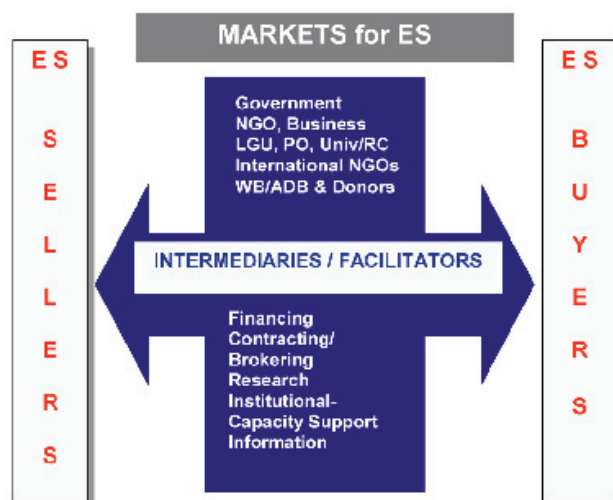
¹ See Ferraro and Kiss (2002)

Figure 1. Environmental Payment Scheme



Another important dimension of an ES payment scheme that differentiates it from past efforts to manage environmental/natural resources is the involvement of the beneficiaries of environmental services in the transaction—either directly or indirectly. Beneficiaries hardly pay anything for environmental services, goods that have been traditionally perceived as free—“produced” by nature at no cost at all. The environmental goods referred to in this paper consist of watershed protection from upland forests, biodiversity of forest and coastal resources, carbon sequestration of forest, and landscape/scenic beauty of the country’s natural resources. This traditional view may have been justified when the abundance of natural and environmental resources was still the rule. However, this has not been the case for quite some time. Most of our natural resources are gone and the few that remain are in varying states of degradation. In this situation, human interventions, either through the conduct of various natural resource management practices or through the avoidance of extractive/damaging activities, are needed to “assist” mother nature to “produce” environmental goods and services that are essential to man’s survival on earth.

Figure 2. Parties to the Environmental Payment Scheme



But these practices cost money or have some opportunity costs in terms of foregone income to the provider of the environmental services, particularly if they will have to abandon destructive land use or extractive practices to secure the environmental services. At the very least, the cost of the foregone income should be borne by the beneficiaries of the environmental services. This is one of the bases for the ES payment scheme. On the other hand, payment could also be based on the value of environmental benefits derived from the service. Since environmental services provide both tangible (e.g. water, electricity, bio-diverse resources) and intangible benefits (e.g. recreation, carbon sequestration and other ecological functions), the value of these benefits can then be used as basis for the maximum amount on which the payment scheme should depend. Any amount in between these two values, i.e. foregone income to provider on one hand and measure of benefit to beneficiary on the other, will provide a win-win solution to both parties to the environmental payment scheme. Note further that abandoning destructive land use practices is meant to bring about only short-term loss to the farmers. It is expected that, as they adopt sustainable land use practices, incomes from land activities eventually rise with improvements in the condition of natural resources.

A parallelism to a market setting exists for this type of scheme in the sense that it also involves buyers and sellers as well as middlemen or facilitators for the scheme to function (**Figure 2**).

Sellers are the providers of ES that, in the case of forested watersheds, include upland farmers performing sustainable agricultural land use practices and/or participating in reforestation and watershed rehabilitation activities. As mentioned before, even the act of “inaction” or refraining from extractive practices, which entails foregoing income opportunities over an area to which the farmers have some form of land use rights, could constitute a form of environmental service provision.

The potential “buyers”, on the other hand, are parties who stand to benefit from environment-friendly land use activities and natural resource management practices. These beneficiaries could be local, national or global in origin. At the local level, the immediate beneficiaries of watershed protection activities are domestic and institutional consumers of water, utility companies, and farmers who benefit from irrigation made possible through the water districts. Local beneficiaries also include lowland farmers whose fields are protected from excessive rates of erosion.

At the national/regional level, consumers of electricity from hydropower firms benefits from a well-protected watershed. Landscape/scenic beauty from natural resources is also an important factor in promoting nature-based tourism that caters to consumers from all levels. Biodiversity and carbon sequestration benefits national consumers as well, but potential buyers are those in the global arena — these goods being considered global goods.

Indeed, there are many groups of people who are directly or indirectly benefiting from well-managed natural resources. These people have managed to avail of these environmental services without having to pay for a long time now. It is proper to make them pay for these services on

both efficiency and equity grounds. Efficiency is expected to result from proper pricing of goods and services from nature, since under-provision of these goods would result from their underpricing. In other words, less of the goods will be produced than what is socially desirable and possible if paid their correct prices. On the part of consumers, lower price tends to encourage higher consumption to a level that could be considered wasteful. A classic example is the case of water, which if priced too low, could make consumers leave their faucets to flow continuously since it is quite cheap. This wasteful use is a form of inefficiency. On equity grounds, it is but proper for beneficiaries of environmental services to share in the cost of provision. There is no social justice when ES beneficiaries take a free ride on the environmental stewardship of poor upland farmers.

Another important party to the ES payment scheme is an “intermediary” or “facilitator.” The facilitators are people who are responsible for bringing buyers and sellers together because, unlike a normal market setting, this ‘exchange’ is not likely to happen unaided. Buyers have managed to avoid paying for a long time and are not predisposed to volunteer now without some form of moral suasion or formal legislation requiring them to do so. Some critical elements in getting beneficiaries to support the ES payment scheme are: a systematic information, education and communication (IEC) campaign; a series of meetings to explain the rationale for the move; research to collect information on the buyers’ willingness to pay and what their concerns are; and legislative support for the proposed scheme.

The sellers, however, are often disorganized, scattered over a big land area, adopt different land use practices, and may have different forms of tenure or rights over the use of land they are cultivating. Understanding their circumstances and explaining to potential “sellers” the logic of an ES payment scheme is important.

Research on the opportunity cost of alternative land uses — in favor of those that are more

consistent with ES production — is crucial in setting up the ES payment scheme. Strong IEC support in getting sellers organized to “negotiate” with potential buyers is also a critical task. Not to be neglected is the need to strengthen the science of the ES payment scheme. This means that, at the very least, the link between land use practices in the natural resource area and the supply of the ES should be made clear to the parties involved before any interest in this scheme can be generated. Finally, the system of collecting charges, making payments, and monitoring land use activities and the corresponding “production” of the ES should all be put in place as part of the institutional arrangements that should accompany any ES payment scheme.

By now, it should be obvious that getting the ES payment scheme off the ground is not an easy job. There are so many things that need to be done, as part of the transaction activities that neither the buyers nor the sellers are likely to do by themselves. The role of intermediaries is thus quite critical. Unfortunately these activities also cost a lot of money. This is where assistance from development agencies, both at the national and international level, is needed. The World Bank (WB) is already quite active in the field and the Asian Development Bank (ADB) is beginning to become a key player. The Global Environmental Facility (GEF) through the WB has been a major supporter of biodiversity programs, including efforts to support the “transaction activities” for ES payment schemes. GEF-WB support along these lines, however, has been concentrated in South America.

2. How does an Environmental Payment Scheme Work in Practice?

International Experiences

This section describes some experiences in the ES payment scheme in various parts of the world. The experiences cited are by no means exhaustive

and are included only to describe how the concept/approach is “operationalized”.

The largest ES payment program exists in the United States. It comes in various forms, such as the Conservation Reserve Program, the Nature Conservancy Program, and the Local Land Trusts Programs of the various states. The specific forms of payment include the purchase of lands that are critical for habitat preservation, biodiversity conservation, or important ecological functions. In some areas, leases on lands and easements over a long period of time guarantee the government the preservation of the desired land uses on the subjected piece of property. The government also offers other forms of incentives like tax relief to landowners who will retain the desired land uses. The same practices also exist in Canada and in some European countries whose governments have the capacity to pay for obtaining desired environmental services for public consumption.

Among developing countries, the concrete example of an ES payment scheme is the system that exists in Costa Rica. In 1996, for instance, a national program on payment for environmental services was launched targeting private landowners. This program was made possible through an amendment of the existing Forestry Law. This act, legitimizing the implementation of the ES payment scheme, is a crucial step that the Costa Rican government has recognized early in the process.

The government also created an agency — FONAFIFO (Fondo Nacional de Financiamiento Forestal) or the National Forestry Finance Fund under the Ministry of Environment — tasked to receive payments for “selling” hydrological services, carbon sequestration, biodiversity, and landscape beauty. Note that these four environmental goods are considered bundled goods that could be sold to prospective buyers. The groups immediately targeted as buyers of the ES are water utility and hydropower companies. The sellers are private landowners contracted to undertake such conservation activities as reforestation and forest

management at USD200, USD500, and USD300 fees per hectare over five years. Payment is staggered over a five-year contract.

A similar scheme exists in Ecuador. It involves watershed protection provided by an upland forest that supplies the water requirements of downstream communities. The watershed is threatened by the rapid rate of deforestation that endangers the supply of water downstream. This is scenario typical in many parts of the Philippines as well. The Ecuadorian government assisted in getting the Nueva America Association, comprising 27 families of upland farmers and 2-3 hectares of forestlands, involved in protecting the headwaters of the municipality water system. The payment is minimal, roughly USD1.00 per month per hectare for conservation or protection of primary forest and roughly USD0.50 per month per hectare for protection of secondary forests. The fees for this scheme come from municipal water authorities in the national capital of Quito and the municipality of Cuenca.

In Colombia, user groups pay for watershed services by buying the entire upper watershed. In this country, power companies are obliged by law to pay a percentage of their revenues from hydropower operations to regional corporations responsible for watershed management. Also in Colombia, a forest corporation pays small-scale farmers for the carbon sequestered from better land management practices.

Philippine Cases of Environmental Service Payments

Do we have similar examples in the Philippines? There are some examples that could be considered a form of ES payment, but in a very informal manner. One such example is that of Mt. Kanlaon Natural Park, with the La Tondeña Distillers, Inc. as the buyer and a group of upland farmers as the sellers. The “payment” takes the form of technical assistance in agro-forestry farming

practices, provision of livelihood enhancement projects, social services, and infrastructure. The ES are watershed protection and biodiversity conservation. Note that the form of payment is in kind, which is what most buyers currently prefer. Another example is the case of the Balian watershed in Pangil, Laguna.

Unlike most parts of the country where town and city water consumers are hardly aware that their water supply comes from watersheds upstream, the downstream water users here are very much aware that their water supply depends on what private landowners upstream do to their lands. They have, therefore, initiated various activities such as provision of free seedlings to upstream farmers and protection of their property. The Iloilo City water consumers, for example, are aware that the sustained flow of high quality water in their faucets depends on what Maasin farmers do in the upland areas they cultivate. The Maasin watershed (Salas, this volume) is a critical watershed, which, by law, should be free from any form of encroachment. However, while the government has succeeded in preventing occupancy in the area and in rehabilitating the watershed — through funding support from the Forestry Sector Project — the downstream communities at some point were actively involved in fundraising activities to support watershed protection initiatives.

The communities’ active involvement was put on hold when the Forestry Sector Project was implemented. This project relied heavily on money borrowed from Japan International Cooperation Agency (JICA), in partnership with the ADB. There is an urgent need to mobilize the downstream communities to ensure the sustained protection of their watershed now that project support is over. Likewise, the upland communities need to be involved in an agreement different from the contractual arrangements made under the Forestry Sector Project. While it is true that communities were organized to take care of resource management, the fact that the incentives cease to exist now with the termination of the

project puts in serious danger whatever the project has gained vis-à-vis watershed protection and management. This is one area where preparatory work for an ES payment scheme should be less intense, since many of the organizing activities, IEC, and technical training for appropriate land use and forest management activities have already been done. The downstream communities are also already convinced of the need to support watershed management initiatives, as the people are quite familiar with the link between their water supply system and the watershed. Indeed, this is a good candidate for pilot testing of an ES payment scheme in the Philippines.

3. Why are Environmental Service Payment Schemes Difficult to Implement?

If the ES payment scheme appears to be so promising in theory and if it is implemented with some success in other parts of the world, why is it not taking off easily in many countries, like the Philippines?

From the preceding discussions, one thing that stands out quite clearly is this: an ES payment scheme is complicated to set up as it requires many players (often with different interests and bargaining power), has large information requirements, is time consuming and, entails huge transaction costs. The main challenge is finding an agency that can help augment the cost of promoting better natural and environmental resource management.

On a positive note, some agencies, like the WB and ADB, are already supporting this initiative in some parts of the world. Linking with these agencies requires government support.

The other key element that limits widespread implementation of an ES payment scheme is the lack of supporting legal basis. There were several efforts by research groups to initiate an ES payment scheme in the country, but this was hindered by legal questions. The Local

Government Code already contains provisions to justify local government initiatives to collect payments for environmental service “production”. This provision, in fact, was used as the basis for getting the Metro Iloilo Water District to “pay” for watershed protection in Maasin Watershed. This is perhaps just one example among many where the ‘payment’ was temporarily stopped due to disagreements over the use of the revenue. However, many critical watersheds are not under the direct control of local government units; for them, the Local Government Code provision will not hold. There is a need to have some legal basis for a scheme similar to Costa Rica’s. Likewise, a supporting national government agency will have to be created to handle this program, similar to the case of FONAFIFO.

Another important deterrent to the implementation of an ES payment scheme in the Philippines is the fact that most of the uplands are public lands, where the tenure over land use is ill-defined in many cases. The cases in the developed and developing countries involved private landowners, where negotiations and accountability are easier to define. For public lands, the situation is complicated. There is no private ownership of these lands, though, it is not uncommon to hear of private titles existing, in theory, over parts of public lands. Most of these public lands, however, are under the control of private individuals, either through some form of long-term tenure over the lands (50 years, renewable for another 50 years) or in many cases, simply a ‘de-facto’ form of ownership bestowed by virtue of prior use/occupancy over the land. In this case, formal recognition of the use rights/occupancy needs to be made as a precondition to an ES payment scheme, something that the government may not be willing to do for fear that this could amount to widespread privatization of public lands. This is certainly not going to be different from their current practices on some public land areas, but will require more work and effort than the government may be currently prepared to invest.

Yet, nobody says one cannot start an ES payment scheme in pilot cases where conditions are more favorable to implementation. The case of the Maasin Watershed described earlier is one example. There are other watersheds in the country that have been similarly supported under various government programs and are likely to be candidates. In most of these areas, where upland communities are already organized, farmers are trained in natural resource management practices and are prepared for such a scheme. The other half of the deal needs to be brokered, however, with potential buyers, as they have been silent beneficiaries all this time.

4. Where to Begin in Setting an Environmental Service Payment Scheme?

This question has already been answered in passing in the preceding section. For emphasis and clarity, this section serves as the concluding section of this paper and offers suggestions on where to go from here vis-à-vis promoting ES payment schemes in the country.

This paper reiterates the need for some legislative action, either amending existing laws or passing a new one. The latter is admittedly more difficult to accomplish, given Philippine politics, so a move along the first suggestion is being made. Amendment to an existing national law appears to be the more ideal move considering the wider coverage it is poised to gain, but this should not prevent pursuing local legislation to support pilot testing of the ES payment scheme in selected areas. Getting support through local legislation is easier to accomplish and could help get national support, once there are concrete examples of success.

Second, government support in creating an agency solely responsible for supporting the ES payment scheme, with appropriate authority and budget, should be an inherent part of any amendment to the existing law. This agency should be responsible for generating support from such international donors as the GEF, WB and ADB. It should likewise

take responsibility for identifying and contracting intermediaries who could help in getting potential buyers and sellers involved in the process, encouraging them to negotiate, and in undertaking such preparatory activities as research, IEC and others that are necessary to execute an agreement between buyers and sellers. As mentioned before, these intermediary activities could be carried out by different organizations but could also be contracted to one capable organization.

Third, there is need to have a clear definition of use rights over public lands that will be subjected to the ES payment scheme, in case this does not exist yet. This is something that the government should be prepared to do as part of its mandate to promote an ES payment system in the country, as this is quite important in defining responsibility and accountability in the ES payment scheme.

Finally, the institutional arrangements should be able to address very concretely some issues that are critical in targeting parties to the ES payment scheme. These TARGETING questions are discussed below:

What is the payment for?

This is a key targeting question and could be further broken down into several sub-questions: Should payment be made for continuing “good” land management practices or something that they would have done anyway? Should it be paid for abandoning “bad” behavior or for making farmers with “bad” practices adopt “good” farming practices? While one would answer negatively on the first sub-question and positively on the other question on the ground that ‘additionality’ is only established in the latter, this could create perverse incentive by turning “good” farmers into “bad” ones since rewards tend to go to the bad ones. Care must be taken in setting criteria for who should be entitled to the payment, a critical issue.

What area should be covered by ES payment scheme?

There are many critical and fragile environmental or natural resources needing the immediate attention of the government. Criteria in setting which areas should be targeted are therefore needed. Should the program include all forest areas or only those at risk? Should it cover only public lands or both public and private lands? It is imperative to prioritize land areas that should be targeted under the ES payment scheme, considering the Philippine's limited resources — both expertise and financial — exacerbated further by this country's huge budget deficit.

The other consideration, aside from the conditions of the physical land area, is the social environment. Earlier in this paper, it was pointed out that it would take a lot of work to get people organized into the environmental service payment scheme — ranging from community organization and an IEC campaign to holding meetings and gathering information. All of these cost money and will take time, both scarce resources now. It is thus important to select forest areas where there are potential buyers and sellers of environmental services, and where people are more or less ready to participate in the scheme or where the communities are already organized.

What payment scheme to adopt?

The specific concern here is whether payment should be in a flat fee per hectare per year with a cap on the allowable number of hectares as is the current system in Costa Rica or based on opportunity cost of the land. Payment could also be based on the value of the environmental services generated. Note that the last two would require study of the cost of the ES to the providers and the value to the beneficiaries, and could vary across providers and beneficiaries. Those are therefore more difficult to determine, but undoubtedly are the more correct economic bases for price setting. The flat fee system has the advantage of being easier

to administer and well suited if the government wants something off the ground soon.

How to make ES beneficiaries pay?

How can beneficiaries of ES be made party to the ES payment scheme? There are several ways to do this. One is through moral suasion, promoting voluntary contributions to the ES payment fund. Another is through negotiations between the parties concerned until agreements on appropriate fee structures are reached. Alternatively, law could mandate payments, for instance, by declaring an increase in the water or electricity bill that would go to the ES payment fund. The government has already declared that part of the revenues of power companies should be allotted to projects in the host communities, but there is no clear provision that such amount should be earmarked for watershed protection, particularly if the watershed generating the ES is not necessarily in the same community as the power company. This provision could be tapped, however, as an important source of the ES payment fund. The global community, through the GEF, could be also be tapped to contribute to the ES payment fund, with appropriate endorsement by the national government.

One final statement needs to be made on the topic at this juncture: **MARKETS FOR ENVIRONMENTAL SERVICES ALONE WILL NOT SOLVE THE COUNTRY'S ENVIRONMENTAL PROBLEMS.** The scheme should be used to complement a broader set of policy tools, foremost of which is the removal of policies that tend to create disincentives for better management of the country's natural resources. A case in point is the slow release of Integrated Protected Area Funds to the resource-based communities. Another is the highly bureaucratic system of releasing tree-cutting permits in private lands. Only an integrated approach to environmental management can be truly effective.

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