

Our work in the RUPES project has documented several cases of market-driven, policy enabled PES models that have shown potential success. Many of these are locally-initiated, transacted, and implemented. In this article, we argue that locally-designed PES schemes can effectively complement nationally designed pseudo PES schemes or compensate for the absence thereof, using examples from two local government units in the Philippines. Currently, no PES strategy is being adopted or implemented by the national government, but these local cases provide opportunities for reflection on implementing the PES/PES-like mechanism to ensure benefit flows back to the communities and adequate targeting of the real providers of ES.

#### Case 1: Baticulan Watershed, Negros Occidental

The Baticulan watershed is located within the boundary of San Carlos City on the northeastern side of Negros Island, covering a total of 428 hectares and with a population of around 500 people living inside the watershed area. Logging was rampant in the 1950-1960s, and with continued shifting cultivation the forest area has reduced below five percent. Both past and current land use practices have resulted in severe soil erosion, flooding, and land degradation.

San Carlos is a booming city with more than 120,000 inhabitants, and is a strategic location for industrial development. However, citizens are concerned that water will eventually become a scarce resource owing to ongoing

## Local Government-Led PES for Watershed Protection: Cases from the Philippines



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### Introduction

Progress towards 'payments for environmental services', or PES, is grounded in an understanding of the conscious and subconscious models used and applied by policy makers and citizens. Although many forest policies have incentive tendencies, variants of PES schemes have evolved that follow a more 'regulatory' framework, rather than being based on business-like principles of conditionality and voluntary transactions. In developing countries, PES schemes that are based on top-down regulatory sanctions may be unsustainable as a result of insufficient resources and weak implementation strategies. A combination of a business-like model based on voluntary transactions has more potential if markets for ES are also increased.



*The Lantapan Watershed. Photo: Grace Villamor.*



PES orientation in the Municipality of Lantapan. Photo: Grace Villamor.

degradation of the watershed. In 2004, the City Government therefore enacted Ordinance No.37 to regulate the operation of the City Waterworks. A special levy or environmental fee of PhP 0.75<sup>1</sup> is collected on every cubic meter of water billed or used by consumers. The amount collected is designated to the “Watershed Development and Environmental Protection Fund”, which, in turn, supports the implementation of the City Master Development Plan (MDP).

Under the Memorandum of Understanding (MOU) between the City Government and the San Carlos Development Board, Inc (SCDBI), the former will leverage said funds for watershed rehabilitation, develop a comprehensive plan for identified sub-watersheds, negotiate with stakeholders, create a common framework, and develop a multi-year watershed rehabilitation and conservation strategy. Part of the rehabilitation plan is a ‘lending scheme’ for private land owners to start reforestation activities using tree-coppicing technology. Huge demand for fuel wood in the area provides a good market for wood harvested through coppicing technology. Tenants will be directly involved as labourers in reforestation activities, whilst proceeds from selling fuel wood will go to the landowner and will be used to repay the “Watershed Development and Environmental Protection Fund”.

Four key actors are involved in the development of the water levy and in implementing rehabilitation and protection activities (Table 1). The land owners who officially own the rights to the degraded watershed are seen as providers of land and are at the same time beneficiaries, since most of them are living in downstream areas. The tenants are largely migrants from neighbouring communities, often perceived as squatters, and are hired in the reforestation project and provided a piece of land by the landowner to plant their own cash crops.

Currently, the project is being implemented and further research on the impact of the scheme is underway.

Actors	Roles
Upland communities	- Tenants; mostly migrants, who benefit from the scheme through direct labour in reforestation and rehabilitation activities for a period of 3 years; depending on the landowner’s decision, tenants are given a small portion of the land to cultivate cash crops.
Private land owners	- Mostly absentee owners of about 90% of the watershed, these allow their tenants to oversee and/or cultivate their lands.
Local Government Units	- Political unit with management responsibilities; decision makers - Initiated the policy framework for ES transfer. - Intermediaries between buyer and seller.
San Carlos Development Board Inc. (SCDBI)	- Facilitates the local people’s agency in the negotiations; broker/mediator in the transfer of benefits.
Households, domestic water users, private individuals	- Buyers; payers of environmental fees for clean/regular water supply for drinking, recreation and domestic use

Table 1. Actors and roles in the transfer of ES rewards (Villamor and Lasco 2007).

<sup>1</sup> Exchange rate (24/11/09), US \$1=47 PhP

**Case 2: Manupali Watershed, Lantapan, Bukidnon**

The Manupali watershed is located in the southeastern side of Mt. Kitanglad Range National Park (MKNRP) in Bukidnon Province. The watershed area has an average elevation of 600 metres, increasing to 2938 metres at the highest peaks; about 70% of the area has slopes greater than 10%. Several streams and rivers flow from Mt. Kitanglad to the Municipality of Lantapan, which further flows down to the Manupali River. Lantapan is thus a river valley that is wholly contained in the Manupali watershed. The Manupali River runs into a network of irrigation canals operated by the National Irrigation Administration (NIA). The whole system ultimately drains into Pulangi IV, the largest hydroelectric power plant in Mindanao Island, operated by the National Power Corporation (NPC).

The population in the area has been expanding rapidly, creating an increasing demand for water. At the same time, the arrival of large-scale agribusiness has pushed smallholder farmers into less productive and more fragile (often high altitude) land at the forest margins, where forest and permanent crops (e.g. coffee) have been cleared and gradually replaced with annual crops. Unsustainable agricultural practices have negatively affected dry season stream-flow and, due to large silt deposits, the storage capacity of the system. 90% of the local population is dependent upon smallholder agriculture.

The people in Lantapan have in the past shown much interest in the possibility of PES. In 1999, the first major wave of conservation farming began through the Landcare programme, which centres on facilitating community groups to undertake conservation activities such as agroforestry and the use of natural grasses as soil erosion filters on sloping lands. More than 1000 farmers adopted soil and water conservation technologies under this programme. However, the adoption ceiling was easily met with the proliferation of banana plantations on prime agricultural lands; thereafter, tensions among stakeholders heightened due to competing water use.

In response to the impending water crisis, the Local Government enacted an incentive-based policy to: i) support farmer investment in sustainable practices to ensure sustainable ES provisioning; ii) build social capital; and iii) build institutional capacity as an honest broker between local communities and external buyers. Municipal Ordinance No. 114 outlines the incentive mechanism to encourage smallholder investments in Sustainable Farming Systems. Support for agricultural development is provided as an incentive to individuals and groups that meet the criteria for sustainable agriculture and agroforestry systems, resulting in increased productivity, profitability and sustained ES. Both local development funds and external projects are sources of funding for seven types of incentives: (1) input subsidies for crop production and natural resource management based livelihoods; (2) extension support; (3) subsidised crop insurance; (4) micro-financing; (5) infrastructure; (6) awards and recognition, and (7) marketing support. In 2008, the Municipal Government allocated approximately PhP 250,000 primarily for transaction costs, including capacity-building for agricultural technicians and linking with ES buyers.

The Municipal Development Council agreed to streamline all local development programmes and foreign-funded projects with the incentive-based mechanism, applying the same criteria as far as possible for all related projects throughout the municipality. Unusually given the high number of stakeholders involved and competing interests, this was achieved using shared resources and through development of a collaborative agreement (including NPC, NIA, and local government authorities).

**Concluding remarks**

This article argues that local government-led PES prototypes are effective substitutes or complements of nationally-driven PES schemes, which may be either ineffective or non-existent. Locally transacted agreements have greater potential in meeting the voluntary and conditionality criteria of an effective, efficient, sustainable and equitable PES system. The sub-criteria can be easily understood, complied, and monitored for quality control at the local level, and local governments can be credible and honest ES brokers with hands-on experience in incentive-based ES policies. Finally, locally-designed PES schemes foster legitimacy at the individual and community level, enhancing their pro-poor potential.

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