RUPES: A Bright Future for Philippine Upland Poor

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Abstract:

Rewarding Upland Poor for Environmental Services or RUPES is a promising program for the upland people in the Philippines. The two RUPES action research sites in the Philippines namely: the Bakun, Benguet and Kalahan, Nueva Vizcaya, are testing payment mechanisms to reward the upland people while providing environmental services. The paper presents the major RUPES activities implemented in the sites and accomplishments achieved during the project implementation. Also a national technical committee on payment on environmental services (PES) is introduced including its roles and functions for the Philippine PES initiatives.

Keywords: RUPES program, environmental services, upland poor

Introduction:

Rewarding Upland Poor for Environmental Services (RUPES) is a regional program of the World Agroforestry Centre (ICRAF), supported by the International Fund for Agricultural Development (IFAD) as the major funding agency. Launched in 2002, the program aims to enhance livelihoods and reduce poverty of the upland poor while promoting environmental conservation at local and global levels. It aims to build working models of best practices for successful environmental transfer agreements adapted to the Asian context. Payment schemes are now tested in six action research sites across Asia - three in Indonesia, two in the Philippines, and one in Nepal.

The program is a consortium of different partner organizations engaged in developing pro-poor environmental service transfer mechanisms adapted to the Southeast Asian context – the Center for International Forestry Research (CIFOR), the World Conservation Union (IUCN), Winrock International, Conservation International (CI), World Wide Fund for Nature (WWF), the Ford Foundation, The Nature Conservancy, national partners from Southeast Asia and other investors.

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Framework and Principle:

A recognition and reward relation is needed between the "upland poor" as providers of environmental services and the "lowland rich" as beneficiaries as shown in Fig. 1. The providers use natural capital as one of the requirement to produce environmental services such as biodiversity and landscape beauty, water quality and quantity, and terrestrial carbon storage. The beneficiaries, on the other hand, are parties (either in the local, national and global levels) who benefit from the environmental services. RUPES acts as an intermediary by testing a range of methods by which beneficiaries of environmental services can pay upland communities for their role as environmental stewards (shown by the direction of the arrow in Fig 1).

Fig 1 Schematic relationships between upland (potential) providers of environmental services and the downstream (interpreted in a broad sense of the flow direction of the services) beneficiaries (van Noordwijk, et al, 2004).

RUPES as a partnership program works on the following principles (van Noordwijk, et al, 2004):

- Improves markets & prices by valuing ecosystem services according to real worth
- A mechanism for generating finance and incentives for service
- Can help to provide rewards and cover costs of ecosystem conservation
- A tool for livelihood enhancement and income generation

with the following indicators of success:

- A participatory approach to learning
- Identified providers and beneficiaries
- Tangible services transparent to the buyers
- Providers have control over resource access and their land management is clearly linked to the provision of environmental services (ES)
- Rewards/incentives can offset opportunity costs
- Fair and equitable benefit sharing among the providers of ES
- Enabling institutional set up and policy framework
- Efficient monitoring and enforcement system
- Tangible contributions to Millennium Development Goals by enhancing sustainable development

Action Research Sites:

(1) *Ikalahlan Ancestral Domain, Nueva Vizcaya*

The Ikalahlan Ancestral Domain covers 58,000 ha of mountainous forest and farmlands from 50 to 1,717 m above sea level, by steep slopes averaging approximately 45 degrees and is located 270 km north of Manila. The Domain extends to three provinces namely Pangasinan, Nueva Ecija and Nueva Vizcaya. About 90% of the Domain’s 20,000 inhabitants are of the Ikalahlan (or people of the broadleaf forests) tribe. The Ikalahlan watershed is 70 percent forest, and provides water for the cities and irrigation systems below. The Domain’s Magat River is downstream from the famous Banaue Rice Terraces, considered as the “eight wonder of the world.” It features thousands of endemic and endangered flora (about 1500 plants were recorded and identified and around 10 species of plants are on the IUCN red lists) and fauna (around 150 bird species and 20 new undescribed bird species).

The Kalahan Educational Foundation or KEF, a SEC registered non-government organization founded in 1973, was organized by the tribal leaders of the Ikalahlan people of Nueva Vizcaya to protect their ancestral lands and their culture. Since then, they have engaged in various modes of forest conservation and management. The KEF pioneered the Community Based Forest Management (CBFM) and remains up to this day a model of community forest resources management system that promotes sustainable development defined as a system that promotes cultural integrity, sound ecology, and sustainable livelihood system for the people of Ikalahlan.

RUPES Kalahan is examining services from carbon sequestration, biodiversity and water protection and test payments for these services. The study also investigates the capacity of the Kalahan Forest Reserve to provide water as an ecological service to a wider sector: irrigators in the lowland and the Magat Dam designed to produce electricity and water for irrigation.

(2) *Bakun Watershed, Benguet*

Bakun is the first indigenous area in the country that was awarded the Certificate of Ancestral Domain Title (CADT). The CADT is a product of decades of struggle of the
Indigenous Peoples in the Philippines for recognition of their unique culture and property rights (Espaldon, 2005). The Domain’s rights covers 29,000 ha of land area in the Cordillera ranges of the northern Philippines. The Bakun indigenous people (mainly closed-knit of Bago-Kankanaey tribe) are predominantly poor and 90% of the local people engaged in rice and vegetable farming. Despite of their poor condition, Bakun has a rich socio-cultural heritage. Their indigenous way of life governs how they relate with the land, the forests and among themselves.

The Bakun watershed is the source of domestic water supply of the local community. More importantly, it is the source of irrigation water for the rice fields and expanding vegetable farms in the area. The watershed area is drained by 4 major rivers, and several tributaries, two of rivers are currently supporting the operation of the Luzon Hydropower Corporation and the Northern Mini Hydro Corporation.

RUPES Bakun and the Bakun Indigenous Tribes Organization (BITO) are working together to examine the efficacy of the existing environmental transfer agreements (or reward mechanisms) for the watershed services provided by the Bakun indigenous peoples (IPs); to develop effective, fair and transparent environmental transfer mechanisms that will enhance the livelihood and reduce poverty among the Bakun IPs; and to provide a model of intervention for the Bakun IPs to fully exercise their rights provided for under the Indigenous Peoples Rights Act or IPRA of 1997.

RUPES Activities and Accomplishments in the Philippines

To date, RUPES is on its fourth year of project implementation in the Philippines. The following are the major tasks undertaken to achieve its goals and objectives.

(1) Characterization of the environmental services

Under this activity, tools were used to determine the perceptions of environmental functions and their processes among and between local people, local institutions, government and scientists which play a key role in the negotiation for any environmental payment scheme. Options for sustaining or enhancing the environmental services were also identified. These are:

- **Rapid Hydrological Assessment** (RHA) – a tool to convey knowledge, experience and perceptions of the major groups of people who have direct influence in managing of their landscape. The framework of the assessment of the hydrological functions being developed by ICRAF were based on 3 knowledge domains, the scientific knowledge (SEK), local ecological knowledge (LEK) and the public ecological knowledge (PEK).

- **Fallow (Forest Agroforest Low Value, Landscape or Wasteland)** – a landscape model simulating forest conversion to shifting cultivation or crop fallow rotation system, where staple food is produced and consumed on the basis of
population density and pro-capita food demand (van Noordwijk, et al, 2004). The model has been developed as an impact assessment tool to help integrate our understanding of landscape-scale mosaic resource interactions. It considers stake-holder roles in transforming the landscape, the biophysical responses from plot to landscape levels through explicit scaling rules, and stakeholders' feedback on the changing landscapes.

One of the major results from the application of RHA in Bakun is the information on the perception and ecological knowledge of the local communities and institutional stakeholders on the hydrologic process of the Bakun Watershed. Problems and possible recommendations for their watershed were raised out by the local communities. Existing indigenous technologies that conserve and maintain water services were recognized. Assessments of hydrologic functions and expected land use in the next ten years were also part of the outputs of the said tool (see Box 1 for key findings).

Box 1. Key Findings: Assessment of the Hydrologic Functions of Bakun Watershed (Cruz, et al, 2005)

Assessment of the environmental conditions in Bakun Watershed reveals that the land use and land cover change seems to be the most significant change that has taken place in the watershed that could explain the changes in streamflow pattern. No significant changes were noted in rainfall pattern, in geological character of the watershed, and in streamflow abstraction and other uses to which changes in streamflow behavior could be attributed. This observation is supported by the SEK, LEK, and PEK generated in the study.

Options for sustaining or enhancing environmental services were examined by testing the FALLOW model as a trade-off predicting tool for analyzing the likely impacts of local land use on watershed and biodiversity functions. Currently, RUPES is elaborating the model by applying it for the carbon services of Kalahan.

A training course on FALLOW Model was conducted in Los Baños, Laguna on 10-14 October 2005 attended by representatives from the two RUPES research sites as part of their capacity building activities, plus various institutions and entities working on upland research and development in different parts of the country.

(2) Identification of the needs of the upland communities providing the services and elucidation of the constraints to the maintenance or enhancement of these environmental service functions

To increase understanding of the dynamics of poverty and provide input grounded in the experiences and needs of poor women and men of the Bakun site, participatory field approach is needed. From the assessment on the social mobilization initiatives and capacity of RUPES Bakun study conducted by an ICRAF consultant, needs of upland communities providing environmental serves were identified. The study uses participatory focus group discussions, meetings, and workshops. Part of the result, are
the identified training needs to build the capacity of the main stakeholders to better perform the environmental service transfer as well as enhancement and maintenance of environmental functions.

The establishment of local Technical Advisory Group (TAG) in Bakun which comprised of the local government units, academes, elders of the indigenous tribe and other local agencies with their respective commitments and roles for RUPES Bakun greatly assisted in identifying needs of the upland communities. RUPES Kalahan has conducted nine ecology seminars involving six groups of farmers and three groups of students. Two of the farmer groups came from outside the ancestral domain for the purpose of scaling out the outcomes from this capacity building activity. The seminars were very successful, as demonstrated by participants improving their farm management customs.

(3) Identification of the beneficiaries of the environmental service functions

RUPES is facilitating the interactions between the providers (which supported by the RUPES site team) and buyers of environmental services. The focus is to be a ‘carbon’ broker for Kalahan. RUPES Kalahan is gradually advancing to enter the carbon market. Consequently, internal rehabilitation and nursery activities have become regular occupations. Last year, the two established nurseries produced seedlings of various tree species for reforestation within the Kalahan Reserve and the adjacent communities covered by the Ancestral Domain. A total of 89,702 assorted, mostly indigenous forest trees were planted. The trees were planted on approximately 40 hectares within the Ancestral Domain and enrichment plantings were done in many other portions of the forest. The Kalahan Agroforestry team initiated reforestation and rehabilitation activities in the grasslands, brushland and open areas. The Director of Research addressed two national conferences to start the dialogue on trading carbon.

RUPES Bakun conducted a dialogue with two hydroelectric power plants operating in the Bakun watershed to be oriented with the RUPES program. While these companies pay taxes to the national and local governments, it is not clear how much of this is directly benefiting or getting back to the communities that provides water protection service. At present, RUPES Bakun is testing the efficacy of tax payments as a reward mechanism for the watershed services provided by the Bakun people. Initial results on this activity include the following: (1) Memorandum of Agreements (MOAs) provisions reviewed; (2) legal basis cited; (3) actual benefits received by Bakun; (4) deviations/disparities; (5) impacts of the benefits to the upland population identified; (6) and potentials ways for maximizing benefits of the providers.

(4) Support for a transparent enabling institutional environment at local, sub-national, and national levels, so as to deliver rewards that are effective, equitable, and sensitive to marginalized groups.
In order for systematic transfers of rewards to upland communities for the environmental services they provide to take place, constraints that inhibit such transfers must be identified and addressed. These constraints can take the form of: a lack of political will; institutional capacity; and, lack of a supportive legal framework, financial resources and even limited community interest and commitment. The key implementing partners come from the national PES-Technical Committee (PES-TEC) members and site implementers and partners can influence policy makers by drawing up recommendations from institutional and policy studies conducted at site and national levels in order to create enabling institution and policy environment for ES transfer reward.

PES-TEC is a national initiative whose functions are (1) information dissemination programs on PES; (2) policy advocacy and development related to PES; (3) conduct of researches on PES; (3) application of better practices; (4) coordination and linkages; and (5) resource generation. Also, the committee acts as adviser of the two RUPES sites on their projects and efforts. Currently, the committee has 13 memberships from government and non-government organizations interested on transfer of payments on environmental services, these include - ICRAF-Philippines, Forest Management Bureau (FMB) of the Department of Environment and Natural Resources, Philippine Council for Agriculture, Forestry Research and Development (PCARRD), Forestry Development Center (FDC) of the College of Forestry and Natural Resources, University of the Philippines Los Banos, Center for Integrative Development Studies of the University of the Philippines (UP-CIDS), Philippine Watershed Management Coalition (PWMC), Research, Environment and Economic Center for Studies Inc. (REECS), World Wide Fund for Nature - Philippines (WWF) Foundation for Philippine Environment (FPE), Cooperative for Assistance and Relief Everywhere (CARE Philippines), National Water Resources Board (NWRB), Department of Agriculture (DA), Bureau of Soils and Water Management (BSWM) and National Economic Development Authority (NEDA).

Two of the important contributions of PES-TEC that influenced policy makers and decision makers are (1) the conduct of National Conference-Workshop on Payments for Environmental Services: Developing Incentives for Conservation and Poverty Alleviation and (2) the publication and launching of a book entitled “PES: Sustainable Financing for Conservation and Development - Proceedings from the National Conference-Workshop on Payments for Environmental Services: Direct Incentives for Biodiversity Conservation and Poverty Alleviation.” The said activities set essential information on the present state-of-art on PES in the Philippines, key elements for developing a National PES Program for the Philippines and linkages with the donor community.
Philippine Upland's Future

The application of RHA become a valuable tool for the RUPES Bakun in exploring different stakeholders' knowledge in the context of the development of payments for environmental services (ES) that are aimed at rewarding the upland poor for protection and/or rehabilitation. The FALLOW Model is well-received by many as an impact assessment tool to help integrate our understanding of landscape-scale mosaic resource interactions while considering the stake-holder roles in transforming the landscape, the biophysical responses from plot to landscape levels through explicit scaling rules, and stakeholders' feedback on the changing landscapes.

RUPES program has attracted many upland areas in the Philippines to look on possible mechanisms adapted in their local context and interventions to make transfer of benefits equitable. The lessons learned from Kalahan and Bakun will serve as guides and models for the development of payment schemes for potential PES sites in the country. This year, a new RUPES learning site – the Baticulan Watershed in San Carlos City, Negros Occidental has been included exchanging information and developing research collaboration.

The role of the PES-TEC in the Philippines is becoming an important reference point for initiating, revising and shaping policy and regulation on environmental issues.

This 2006 the RUPES program is looking forward to strengthening out these partnerships, acquiring more knowledge and information and continuing communication effort to disseminate RUPES lessons. With the RUPES intervention, the future is becoming bright for the Philippine uplands.

References:


