

LEGAL, POLICY AND INSTITUTIONAL FRAMEWORK FOR PAYMENTS FOR ENVIRONMENTAL SERVICES IN THE PHILIPPINES: OPPORTUNITIES AND CHALLENGES IN THE FORESTRY SECTOR*

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Abstract

The research examined the policy context and institutional arrangements guiding the payment of rewards and incentives for environmental services in the Philippines. The review of major legislations, policy issuances, and field case experiences identified a healthy community of stakeholders in the environmental service sector, which include the Philippine state as primary stakeholder, local economic interest or environmental service provider/user groups and sellers, external economic interest or environmental service user groups, internal state mediators, external state mediators, civil society mediators, and the donor community.

The Philippine policy framework and institutional setting for environmental services payments provide many opportunities for engaging local government units, civil society organizations and the private sector in market creation and enhancement. There are sufficient laws to guide the provision of environmental services, their harnessing, the protection of source areas, and the extension of benefits to communities in the source areas. Identified institutional constraints and policy gaps at the implementation level pertain to social equity and social welfare issues as translated in benefit sharing and payment of rewards, but these are not insurmountable. These can be addressed by a multistakeholder, interagency environmental services agenda that promotes (a) policy enhancement and reappreciation to recognize the requisites of commons management and benefit sharing, not an all-out reformulation process; (b) capacity and capability building in environmental service negotiation, valuation, and protection among local government units and civil society organizations; and (c) research and advocacy on environmental service management and benefit sharing.

1. Introduction

Environmental services (ES) are direct or indirect benefits from nature that are usually not valued in the market. These cover water supply for domestic and industrial use, hydropower, tourism, carbon sink, biodiversity (gene pool conservation, generation of natural fertility, and others), soil protection, flood control/prevention, and elevation services. Long enjoyed for free, current situations of scarcity amidst competing use rights

and management practices have increasingly required the government to take the lead role in the development of efficient and equitable markets for these services and, relatedly, the protection and conservation of their sources. However, present institutional arrangements neither efficiently nor judiciously function to make upland communities in the Philippines share in the benefits, rewards, incentives and the like from environmental services that they provide. It is toward improving the current institutional setting and policy framework for

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benefit sharing from environmental services that the policy review was undertaken, complemented by an examination of case experiences from all over the country.

The review of the institutional environment, mechanisms and processes related to the provision of environmental services covered at least three general legislations that provide the overall policy framework on natural resources use, access and control; 13 that define institutional arrangements within the environment sector; and a minimum of 15 specific issuances, either officially adopted or still in draft form, which deal with on-the-ground implementation or enforcement. An institutional mapping of various players in ES provision was attempted from official reports, project documents, and interviews with key officials and field staff of involved agencies and organizations — from source to client communities, the government sector, Civil Society Organizations (CSOs), and the business sector.

The examined policies include the following:

a. General Legislation

1. The 1987 Philippine Constitution
2. Republic Act (RA). 7160: An act providing for a Local Government Code (1991)
3. RA 8371: An act to recognize, protect and promote the rights of indigenous cultural communities/indigenous peoples, creating a National Commission on Indigenous Peoples, establishing implementing mechanisms, appropriating funds therefore, and for other purposes (1997)

b. Sectoral Legislation on Institutional Arrangements for the Use of Environment Services

1. Presidential Decree (PD) 1151: Philippine Environmental Policy (1977)
2. PD 1152: The Philippine Environment Code (1977)

3. Executive Order (EO) 192: Providing for the reorganization of the Department Of Environment, Energy And Natural Resources, renaming it as the Department of Environment and Natural Resources, and for other purposes (1987)
4. PD 705: Revising PD 389, otherwise known as the Forestry Reform Code Of The Philippines (1975)
5. RA 7586: An act providing for the establishment and management of National Integrated Protected Areas System, defining its scope and coverage, and for other purposes (1992)
6. PD 1067: Water Code of the Philippines
7. Department of Energy Act (RA 7638, 1992); ER 1-94
8. Electric Power Industry Reform Act (EPIRA) (RA 9136, 2001)
9. RA 9147: An act providing for the conservation and protection of wildlife resources and their habitats, appropriating funds therefore and for other purposes (2001)
10. RA 7611: An act adopting the Strategic Environmental Plan of Palawan, creating the administrative machinery for its implementation, converting The Palawan Integrated Area Development Project Office to its support staff, providing funds therefore and for other purposes (1992)
11. EO 263: Adopting the Community-Based Forestry Management as the national strategy to ensure the sustainable development of the country's forestland resources and providing mechanism for its implementation (1995)
12. RA 9275: Clean Water Act (2004)
13. EO of 318: Promoting Sustainable Forest Management in the Philippines (2004)

**c. Executive/Administrative Issuances
Implementing and Complementing the Above
Legislations**

1. EO 224: Vesting on the National Power Corporation (NPC) the complete jurisdiction, control, and regulation over watershed areas and reservations surrounding its power generating plants and properties of said corporation (1987)
2. Memorandum 288: Formulating the Philippine Agenda 21 (1995)
3. EO 247: Prescribing guidelines and establishing a regulatory framework for the prospecting of biological and genetic resources, their by-products and derivatives, for scientific and commercial purposes, and for other purposes (1995)
4. PD 1586: Establishing an environmental impact statement system, including other environmental management related measures and for other purposes (1978)
5. Department Circulars (ER 1-94 on DLF & RWMHEEF; Joint DILG and DOE Circular 95-01 on the sharing of national wealth, taxes, royalties, fees or charges)

d. Department Orders

1. Revised guidelines for the prospecting of biological and genetic resources in the Philippines, repealing Department Administrative Order No. 96-20
2. Revised rules and regulations for the implementation of EO 263, otherwise known as the Community-Based Forest Management Strategy
3. Revised guidelines providing the mechanisms on the Production Sharing Agreement with people's organizations (POs) in the harvest of forest plantations owned by the governments inside Community-Based Forest Management (CBFM) areas
4. Revised guidelines governing the implementation of development and

service contracting inside Community-Based Forest Management Areas

5. Rules and regulations governing the special uses of forestlands
6. Prescribing guidelines on the introduction of genetically modified organisms (GMOs) under the Environmental Impact Statement (EIS) System
7. Imposition of the graduated fines under RA 6969 and its implementing rules and regulations, DENR Administrative Order No. 29, Series Of 1992 (Dao 29,S. 92)
8. Guidelines on the implementation of the Forest Stocks Monitoring System (FSMS)
9. DAO forest charges
10. DAO rules and regulations governing the co-production on special uses of forest lands

2. Institutional Players in the ES Sector

Institutional players in ES consist of providers, sellers, buyers, and mediator support networks. Included are the Philippine state, local economic interest or ES provider/user groups, external economic interest or ES user and buyer groups, internal state mediators, external state mediators, civil society mediators, and the donor community.

From a sample of examined cases throughout the country, the various types of organizations and agencies in the ES market may be gleaned from **Table 1**.

As main provider from the perspective of national law, **the State** is the primary stakeholder in all lands of the public domain from which are drawn the environmental services. Article XII Sections 2 and 3 of the Philippine Constitution assign to the State alone the right to enter into any co-production, joint venture, production sharing agreements; and to classify lands and resources that can be alienated, developed, or leased.

Local economic interest groups or providers, users and sellers include the independent small-scale gatherers and producers who are residents in the resource areas or adjacent settlements. They are either unorganized individuals or members of formal bodies like farmers associations, cooperatives and federations. To the extent that they have been capacitated as corporate entities, LGUs and grassroots organizations are ES sellers, particularly in the energy sector. Among the formally recognized groups are Certificate of Ancestral Domain Claim/Certificate of Ancestral Domain Title (CADC/CADT) holders who hold both *de jure* (legal) and *de facto* authority (based on knowledge, interpersonal skills, expertise and personal effectiveness) over the rest of community members within the territory of the domain. Their position as ES provider is buttressed by the fact that the Indigenous Peoples' Rights Act (IPRA) vests among them not only benefit-sharing rights, but even resource management and property rights. Holders of tenurial security instruments issued by the national government, such as the Community-Based Forest Management Agreement (CBFMA), are also considered local interest or ES provider to the extent that they undertake watershed management functions aside from being user groups.

The **external economic interest or ES user/seller groups** include entrepreneurs, traders, businessmen, middlemen, and investors who are not from the production community, but who link the local providers to the ES market. They may or may not be holders of a permit or licence to sell environmental goods and services, although these are requirements.

Examples are water utility companies, independent power producers, individual traders and entrepreneurs who are ES financiers or sellers themselves. Other than having economic interests, some from this ES user group may join civil society periodically as common interests require them to do so. Hence, their role in ES provision must not always be construed as adversarial to ES

market development that can potentially benefit ES providers from poor upland communities.

Internal state mediators include local officials, administrators and staff who, as LGU representatives and personnel, are primarily responsible for the territory within the jurisdiction of the governance unit. They have *de jure* (legal) authority to link the community with external agencies and groups. While they cite the interest and welfare of the territory under the LGU as primary in their executive and legislative functions, they also implement the policies and programs of the national government.

These roles of the internal state mediators give them the widest opportunities to interrogate policies and programs sourced at the central government because of the progressive provisions of the Local Government Code, especially as regards self-initiated development planning and natural resource management. In many instances, however, these opportunities are not created because of underdeveloped or underutilized capacities.

External state mediators include the staff and officials of national line agencies and central government agencies whose policies and programs cut through the various levels of governance. Such agency personnel carry out the mandate of their respective offices, and in doing, experience the extent to which there is local acceptance. Government line agencies involved in ES provision are the Department of Environment and Natural Resources (DENR), Department of Energy (DOE), Department of Agriculture (DA), (DOTC), National Commission on Indigenous Peoples (NCIP), National Water Resources Board (NWRB), National Power Corporation (NPC), National Economic Development Authority (NEDA), and their attached agencies like the National Electrification Administration (NEA), Energy Regulation Commission (ERC), and National Irrigation Administration (NIA).

Table 1. Summary Table on Institutional Players in the ES Sectors

Environmental services Case studies	NGA/Government corporations (players with official mandate over the sector)	Donor community, private sector, civil society and LGU
Watershed management for water supply Baggao in Cagayan; Quirino; N. Vizcaya Tuba in Benguet SOCSARGEN	<ul style="list-style-type: none"> • Department of Environment & Natural Resources (DENR) • National Irrigation Authority (NIA) • National Water Resources Board (NWRB) • National Commission on Indigenous Peoples (NCIP) where applicable 	<ul style="list-style-type: none"> • Water supply companies • Water District/ Local Water Utilities and Water Authority (LWUA) • Local Government Units (LGUs) • CBFMA holders • Assisting NGOs • Sponsoring multilateral/bilateral agency project : ITTO, JBIC, Aus-Aid • Business sector: Dole Philippines
Watershed management for hydroelectricity Bakun, Benguet ER sites of DOE	<ul style="list-style-type: none"> • Department of Energy (DOE) • Energy Regulatory (ERC) Commission • National Power Corporation (NPC) • NCIP, where applicable 	<ul style="list-style-type: none"> • Independent power producers • DUs/Franchises (distribution utilities) • Regional Electric Cooperatives (RECs) • Manila Electric Company (MERALCO) • (PIOUs) private independent- owned utilities • (LGUs) Local Government Units • PO/CADT holders • Assisting NGOs • Sponsoring multilateral/bilateral agency : (ILO), Japan Bank for International Cooperation (JBIC)
Biodiversity Conservation Palawan	<ul style="list-style-type: none"> • PAWD-DENR • DOST, PCMARD, PCCARD • DA, BFAR 	<ul style="list-style-type: none"> • PAMB • NGOs, academic community • POs/CADC or CADT holders • LGUs • Sponsoring multilateral/bilateral agencies : UNDP-GEF-SGP, World Bank for CPPAP, EC, DANIDA, The Royal Netherlands Embassy, etc.
Ecotourism Mt. Kitanglad Mt. Pulag, Benguet	<ul style="list-style-type: none"> • Department of Tourism • DENR (for Protected Areas) • NCIP, where applicable 	<ul style="list-style-type: none"> • Tourism service providers • PAMB-DENR • POs/CADC or CADT holders • LGUs • Sponsoring multilateral/bilateral agencies: UNDP-GEF-SGP, World Bank for CPPAP
Other environmental services (e.g. elevation, strategic location)	<ul style="list-style-type: none"> • Department of Telecommunications • Department of Agriculture 	<ul style="list-style-type: none"> • LGU • Telecommunication companies • Farming communities

Civil society mediators include a wide range of non-state groups, from both the public (at large) and private sectors who may come together to take action on concerns and issues of governance in which the government takes the lead; for instance, the provision of safe water, energy, consumption goods; taxation; job creation; and the like. They include NGOs, POs, academic institutions, media, religious groups, CSOs, business, and even ideological forces. They serve as (a) independent power centers and agents of change, (b) critics or interlocutors of the state, and (c) generators of social change. As assisting organizations, NGOs extend support in organizational development and management, social mobilization and advocacy, technical services, and funding, either on a private, volunteer basis or as public service contractors (PSCs) that function as market-oriented, non-profit businesses serving public purposes.

The *donor community* covers public and private agencies that give grants or extend loans and technical services to any of the previously cited categories of institutional players in environmental services. Donors may be either local (Philippine), or foreign, through bilateral, multilateral, or independent private links.

3. Policy Context and Institutional Mechanisms for Rewarding Environmental Services: Challenges and Opportunities

The pressure to look into conditions that would guarantee more equitable sharing of costs and benefits through the development of new markets for environmental services is a long-recognized concern in the environment sector. The institutional analysis revealed that there are sufficient laws to guide the provision of environmental services, their harnessing, the protection of source areas, and the extension of benefits to communities in the source areas. Existing policies and institutional mechanisms provide numerous opportunities for benefit sharing through PES.

Over the last three decades, for instance, functions within the environmental sector have been streamlined, and most institutional arrangements for the use of environmental resources have been laid down and enforced. The contestations for greater efficiency and responsiveness to various stakeholders keep the policy context constantly and vigorously reexamined not merely by the state, but as demanded by a very actively engaged civil society and the business sector. Today, for instance, policy discussions address not only the concern for greater participation of a wider range of stakeholders, but also greater control over resource access and utilization, albeit either in competition with or in the light of the need for better protection.

The review revealed the responsiveness of the State and ES players to the changing demands on natural resource management regimes, such that we see the policies evolving from the purely administrative and technical, to those that had to respond to the competing imperatives of production and sustainable development, conservation and human welfare, centralized governance and multistakeholder participation, short-term and intergenerational goals, and sensitivity to global imperatives and local realities.

3.1 Opportunities in ES payments, rewards and incentives

The examination of existing instruments for ES payments and rewards revealed a favorable policy and institutional context that allows the provision of a wide range of benefits to ES providers (**Table 2**).

Nonetheless, it can be said that the policy framework is as yet largely reactive; in addition, there are considerable gaps and institutional constraints despite being extensive in coverage. The entire agenda of transfer payments or benefit sharing from ES has to be adopted at the practical, problem-solving level so that it can be pushed beyond the rhetorical plane in which it has been

Table 2. Summary of benefits from examined case experiences in PES

Main instruments for the ES Sector	Benefits, rewards, incentives for ES enjoyed by the community
<p>1. Watershed management for water supply</p> <p>Community Based Forest Management Agreement (CBFMA), with Resource Use Permits (RUP) and Annual Work Plan (AWP) for non-timber forest products (NTFP)</p> <p>Water use permits</p> <p>LGU ordinance for watershed management, fund utilization</p>	<p>Supplemental income from trees</p> <p>Employment during tree establishment activities</p> <p>Seed capital for income generating projects</p> <p>Training: agroforestry, leadership, project management, adaptive farming technologies, watershed management, entrepreneurship</p> <p>Share from national wealth (used for components listed above)</p>
<p>2. Watershed management for hydropower</p> <p>User fees from power producers</p> <p>LGU ordinance for watershed management, fund utilization</p>	<p>Power benefits: electrification, prioritization in energy provision, reduced cost of electricity</p> <p>Employment: in the plant, in reforestation projects, in infrastructure support projects</p> <p>Skills development related to energy generation and agro-industrial skills</p> <p>Direct Livelihood Fund (DLF) and Reforestation Watershed Management Health and/or Environment Fund (RWMHEEF)</p> <p>LGU share from national wealth</p>
<p>3. CBFM Program</p> <p>CBFMA, with Resource use Permits (RUP) and Annual Work Plan (AWP) for non-timber forest products (NTFP)</p>	<p>Tenurial security</p> <p>Supplemental income from trees</p> <p>Employment during tree establishment activities</p> <p>Seed capital for income generating projects</p> <p>Training: agroforestry, leadership, project management, adaptive farming technologies, watershed management, entrepreneurship</p>
<p>4. Biodiversity conservation</p> <p>Commercial Research Agreement</p>	<p><u>Existing :</u></p> <p>Application fee</p> <p>Rehabilitation/Performance Bond</p> <p>Bioprospecting fee</p> <p>Milestone payments : annual useris fee, royalties, product development fees</p> <p><u>In conservation projects :</u></p> <p>Training</p> <p>Supplemental income in livelihood projects</p>
<p>5. Non-timber forest products</p> <p>Resource Use Permits (RUPs)</p>	<p>NTFP harvests</p>
<p>6. Tourism</p> <p>User fees</p>	<p>Supplemental income from tourism services</p>
<p>7. Other environmental services</p>	<p>Real property tax or rental fee</p>

relegated at the moment because of competing policies and environment-related programs, the opportune investment climate for privatization of common resources in the light of global imperatives, and civil society demands.

Among success factors, the most critical is LGU leadership in providing the local policy framework in accord with the area's needs and priorities, leveraging external assistance with the LGU as the corporate or jural entity, initiating policy harmonization and reform, and the pursuit of institutionalization through sustained leadership as co-manager with national entities. The LGUs role in the creation of ES markets, however, is as yet being experienced in watershed management for hydropower generation and tourism.

Responsive social mobilization grounded on strong community organization with civil society mediation is being achieved, although social preparation and acceptability as success factors are being realized only as a long-drawn process. Where local governance mechanisms are weak, the civil society's role is very valuable in facilitating these processes, and in leveraging for the resource requirements of local initiatives. Moreover, local communities and LGUs are upgrading skills through technical training in watershed management, soil and slope stabilization, and adaptive farming techniques. Economic benefits are being enjoyed through appropriate livelihood support in terms of basic infrastructure provision, marketing linkages, micro-financing, and entrepreneurship in consonance with the objective of sustainable watershed management. For instance, "timber harvesting" is no longer viewed as the only viable income-generating activity, and non-timber dependent CBFM beneficiaries are gradually being enabled to develop alternative economic activities.

3.2 Institutional challenges and resource use conflicts

In relation to benefit sharing, however, the institutional and policy issues are much more complex, and the potentials for maximizing ES payments still unexplored.

To encourage good governance and increased benefits from PES in the water sector, several limitations in the current approach to the valuation of water and watershed management need to be considered.

First, current water-use policies do not clearly identify and substantiate a water management approach to water resource use and conservation. The basic institutional conflict in watershed for delivering water stems from the fact that while watershed management is a responsibility lodged with the DENR, it is implementable only if the upland community is considered not simply as a partner but as a co-owner of the project. The responsibility of watershed management ultimately rests with a trained and empowered local community, not with DENR that functions as a line agency.

Second, policies on water resource allocation and use have remained independent or unrelated to activities and policies concerning the watershed. This particular problem arises because there is an absence of a watershed management approach to groundwater and surface water management.

Third, groundwater is implicitly viewed as an inexhaustible resource and, therefore, is deemed to have no value in its raw form. For example, the definition and use of water charges, as well as the production fee assessment, reflects the zero valuation of raw groundwater. In the Water Code and Implementing Rules and Regulations (IRR), water charges and fees are regarded as relevant only to the financial expenditures and status of the water district. Thus, revenues from water charges are usually set aside only for the payment of

loan interests and principal, or as a sinking fund for debt payment. The revenues may also be set aside for the expansion and improvement of the water district but there is no reference to a fund for watershed protection and development. The Water Code does not appear to consider watershed use and development as an input or capital resource for making water available to localities. The responsibilities attached to water rights, in short, are confined to the extraction and distribution of water, to a neglect of water development as a critical requirement to achieve sustainability in the market for environmental goods and services.

Fourth, in addressing the prospect for water shortage, government basically relies on market-oriented measures, such as privatization and build-operate-and-transfer schemes. Market-oriented measures, however, are inadequate in the determination of the full economic value of surface and groundwater, especially as the importance of watershed protection and management relative to the provision of water is not formalized. Further, we can paraphrase economics a bit: market-oriented policies sometimes cannot fully capture the economic value of a resource in the presence of externalities and the public good characteristics of environmental goods and services.

To date, the valuation of water has two aspects: the demand side and the supply side. Using marginal cost pricing, Warford (1994) defines the full economic value of water to society in terms of marginal opportunity cost. As a measure of social cost, marginal opportunity cost consists of three components: MPC, MEC, and MUC where MPC is the marginal private or production cost; MEC, the marginal external cost; and MUC or the marginal user cost. MEC takes into account the negative externalities resulting from the production and consumption of water (e.g. aquifer interference pertains to the use of excessive pumping on the level of ground water supply).

Fifth, water resource management has been depending too much on “regulatory mechanisms”

instead of relying as well on a watershed management approach, with operationally delineated control areas, and “adequate market-based policies.” The regulatory mechanisms, however, usually pertain to consumption and delivery schedules. This implies that to be an effective resource manager, a water management agency must have operationally delineated control areas as to which agency can determine water use, oversee groundwater extraction, monitor (or anticipate) the prospect of local water depletion, reduce the number of groundwater users without permits, and compel the enforcement of market policies.

Sixth, despite provisions for ES rewards and incentives, bureaucratic procedures or other tax incentives given by the government to private companies circumvent the local communities’ enjoyment of the rewards. For instance, Tuba municipality has an existing agreement with the Baguio Water District (BWD) (signed 23 December 1996) for it to pay to the municipality 1 per cent of their annual gross sale on the volume of water drawn since 1992 in accordance with the implementing rules and regulations of the Local Government Code starting 1992 (the share in national wealth). In reality, the remittance of said share passes through the central government first, such that the local community has to wait for at least three years before receiving their share which, when received, could not be distributed efficiently to the concerned barangays because of Internal Revenue Allotment-induced conflicts related to administrative boundary limits of adjacent areas.

The challenges are similarly diverse in the CBFM strategy. Income is still the most critical factor to be addressed in the short run, which the long gestation production-sharing scheme is not able to cover. Hence, timber-dependent CBFM beneficiaries continue to put pressure on timber resources. Rights and obligations relative to access to forest resources are not clear; these are sources of conflicts and more destructive activities. Because

water is critical even in upland communities on account of the degraded state of sources, farming systems still have to be enhanced alongside supply and watershed management issues. In short, a sense of ownership to common properties, largely among settler communities, is not easy to achieve, such that being resource users is not a guarantee in forest protection.

The community's absorptive capacity to be empowered is variable and cannot be time-fixed. Upland communities are historically weak, depend on political leaders, and are influenced by middlemen/traders and financiers. Although organized, most upland communities are not sufficiently empowered. Their influence on decision making is still weak to resist outside pressures. In addition, while they are potential ES sellers, there are also free riders in local communities. For these reasons, local people must be aggressively engaged to become responsible ES providers.

The other domains in the ES sector are less developed and thus present theoretically open systems for ES market creation. Protection initiatives in biodiversity conservation have been numerous and expanding, but conservation itself as an environmental service is at the moment being guided only by tedious permitting processes, the Wildlife Act to regulate collection and trading, and the Commercial Research Agreement as main instrument for bioprospecting.

Many provisions in the existing policy on bioprospecting are difficult to implement, thus serving more as a disincentive to good practices in conservation. Regulation (through enforcement and monitoring) of wildlife trade and activities is weak, resulting in habitat destruction. For the harvesting of non-timber forest products, the challenges include under-pricing of products, poor market support, weak product-development capabilities among local communities, and restrictive DENR guidelines that also serve as disincentive to sustainable resource use.

ES payments in the tourism sector are similarly underdeveloped and not maximized. The development of tourism support services as source of local income and to increase visitor fees is weak, while alternative incomes generated from tourism services are not enough. Visitor fees collected to support park operations are inadequate (for instance, for protection manpower that draw salaries from the IPAF). Institutionally, therefore, there is a great need for valuation studies for user fees and tourism support services, and for these to be translated into enforceable policies.

Similarly, other environmental services, such as those that accrue from elevation and strategic location of sites, provide benefits to LGUs and households only in the form of real property tax or rental fee. These services are still largely unsystematically valued or understudied, because the potentials have not yet gained LGU appreciation.

4. Pushing the Agenda for ES Transfer Payments: The Way Forward

Given the identified policy gaps (at the implementation level) and institutional constraints, the study promotes (a) policy enhancement and reappraisal to recognize the requisites of commons management and benefit sharing, not an all-out reformulation process; (b) capacity and capability building in ES negotiation, valuation, and protection; and (c) research and advocacy on ES management and benefit sharing.

The case studies and policy review revealed a very rich set of insights on the critical issues that need to be addressed in an agenda to improving the provision of ES rewards, incentives and payments to upland communities. Clearly, such an agenda will require not just a reform in institutional arrangements affecting access and benefit sharing in the utilization of common resources, but a whole range of capacity- and capability-building programmes as well as researches.

a. Policy enhancement and reappreciation of common resources and environmental service (not an all-out reformulation process)

Based on the study, the needed policy reform will not require any major recrafting of existing laws, executive and administrative orders and circulars or related policy issuances. Instead, the suggested direction is the enrichment of existing policies with implementation guidelines that will emphasize (i) the larger context in the harnessing of environmental resources and its link to productivity and sustainability; (ii) the interdependent rights and accountabilities of all ES players; and a commitment to fair, equitable sharing of benefits from environmental services among providers, generators/developers, buyers and sellers.

Inasmuch as the shift in perspectives will require sustainability issues in the provision of environmental services, the national and local discussions must harness the contributions of all ES players from a multistakeholders' perspective.

For example, most existing laws have sufficient provision for ES benefits to be enjoyed by the local communities. Yet, either these are not fully realized because provisions for watershed management, for instance, are not carried out in accordance with the policies, or are not monitored, regulated, missed out in formal agreements. Hence, the suggested direction in policy and institutional reform is to engage implementors from line agencies, LGUs and the general public to creatively enrich the existing policies (and programs) so that multistakeholder and interagency collaboration and complementation can be achieved in relation to improving the institutional setting for ES harnessing, protection and benefit sharing.

National and regional (site-specific) discussions can be supported to tackle the identified institutional constraints, gaps in policy, gaps in institutional roles, and practical issues related to the management of environmental resources that

bear on the sustainable provision of environmental services. Such possible themes or issues were surfaced by the study in relation to watershed management and water supply, watershed management for hydropower, CB FMP as a broad program for various values (carbon sink, watershed, biodiversity, etc.), biodiversity conservation, tourism, elevation services (an undeveloped field for ES payments).

b. Capacity and capability building in ES negotiation, valuation, and protection

LGUs and local organizations (POs, NGOs that provide technical assistance) will require sufficient preparation in good ecosystems governance, conflict resolution, and skills upgrading related to improving ES payments and developing ES markets.

Good ecosystem governance will require LGUs and institutional players to efficiently and sustainably manage their resource areas intergenerationally with an increasing sense of accountability in terms of functional areas that are now the domain of decentralized and depoliticized governance.

Skills upgrading is expedient if the upland communities are to negotiate for a better structure of ES payments. They must be equipped only with the technical know-how on environmental management and conservation, but also in the generation and analysis of data for evaluating environment indicators, assessment of the costs and benefits of environment-related policies and projects, development of innovative financing schemes (i.e. user fees, environmental guarantee funds and conservation fees tied to development projects), negotiation for appropriate institutional arrangements and equitable sharing with local and foreign business sectors involved in major development projects (e.g. logging, mining, plantations, industrial zones, tourism), enhancement of participatory and consultative approaches, and integrated planning that involves different

government and private agencies representing units from various levels of governance.

Other examples of capacity-building concerns include:

- Resource valuation techniques (e.g. Environment and Natural Resources Accounting)
- Land-use planning (that integrates Forest Land-Use Planning and Conservation)
- Determination of property regimes and rights and appropriate tenurial instruments
- Market-based schemes, cooperative endeavors and credit mobilization particularly for small-scale producers
- Various approaches to zoning and management planning to dissuade encroachment into protected areas and critical habitats
- Innovative contractual arrangements toward community-based resource management as well as partnerships with corporate-led projects
- Environmental impact assessment of energy, infrastructure, forestry, tourism, communication projects

c. Research and advocacy on ES management and benefit sharing

Rewarding upland communities for the environmental services they provide (RUPES) is a very innovative and aggressive perspective — as it challenges the usual top-down and prescriptive nature of centrally-generated policy, often in conflict with its real, practical workings. The spirit behind RUPES, however, has long been expressed by communities who have traditionally been and are ultimately made responsible for providing the environmental services.

In view of the statist character of most policies, and the conflicting demands of business interests and civil society sectors on environmental services, the direction of policy reformulation (or ES appreciation) process can be very attractive yet

tedious, even fractious. Negotiation and conflict-resolution processes need to be tempered with reasonable and convincing research, International Center for Research in AgroForestry, information, education and communication and advocacy programs.

Research is basic for resource valuation, determining the feasibility of alternatives to destructive natural resource utilization activities, even for product development and marketing support.

Solid information from resource valuation studies, when properly disseminated, can generate wide social acceptability of the rights and obligations attendant to the protection and harnessing of environmental services. Raising awareness is crucial to aid the capacity- and capability-building goals in reconfiguring the structure of ES payments and incentives.

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