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## **“From watershed to REDD: Multilevel governance of PES schemes in Nepal”**

### **Abstract**

*Nepal has embraced the promise of international carbon markets as a means of mitigating the impacts of climate change while promoting the economic development of both the country as a whole, and of forest-dependent communities in particular. The government is formulating a national policy and institutional framework for the REDD (Reduced Emissions from Deforestation and Degradation) mechanism and various actors are initiating piloting activities. Meanwhile, Payment for Environmental Services (PES) regimes are receiving increasing attention as a potential means of enhancing forest conservation while providing vital services, such as water supply for municipal and hydropower uses. Community forestry in Nepal is at a crossroads—one that will determine whether local communities and their forest management practices can be effectively linked to broader carbon markets and thereby help reduce the global threats of climate change and biodiversity loss. However, before recommending international carbon-trading schemes such as REDD for Nepal or countries with similar forest conditions and governance regimes, we must study and draw lessons from the outcomes of existing PES schemes; conceptualize carbon as but one element in a suite of nested environmental services provided by forests; innovate a variety of carbon trading options; and resolve fundamental constraints to effective forest governance.*

### **Introduction**

Governments will gather at the upcoming UNFCCC Conference of Parties (COP-15) talks in Copenhagen in December 2009 to agree on policies to address the global threat of climate change. While Nepal faces considerable risks from climate change impacts, it also has potential to gain from proposed mitigation policies and mechanisms, including compensation for carbon sequestration and storage services provided by forests.

Through the proposed Reduced Emissions from Deforestation and Forest Degradation (REDD) mechanism, Nepal could potentially realize substantial financial gains from ongoing forest conservation efforts, in which forest users have played a key role. The government is eager to capitalize on the promise of REDD. With donor support, it has established an inter-ministerial advisory body; a multi-stakeholder working group with representatives from government, civil society and donor organizations; and a “REDD and Climate Change Cell”, housed in the Ministry of Forests and Soil Conservation, responsible for developing a national policy and institutional framework for REDD. Concurrently, various donor organizations and NGOs are implementing piloting activities to demonstrate the viability of REDD in Nepal.

## Learning from PES precedents

While specific provisions for REDD are still being debated, and there is no guarantee that international consensus will be reached, Nepal is investing much effort to ensure that it would benefit from this new mechanism. However, this process is being driven from the top down, without due consideration for past lessons or current issues in community-based forest management. There is a notable lack of scrutiny of existing precedents that could inform REDD implementation, including various payment for environmental services (PES) schemes.

The PES concept, though relatively new to Nepal, is receiving increasing attention in policy and donor circles as a means for promoting sustainable forest management, while providing vital environmental public goods. Some note a dearth of experience in translating this concept into practice, and an urgency to experiment with various PES schemes and institutions that market carbon and other critical environmental services (Ojha *et al.* 2008, Pokharel and Byrne 2009).

A few examples of PES mechanisms already exist. One involves government royalties from hydropower facilities at the Kulekhani reservoir in Makwanpur District. Regulations stipulate that 50% of hydropower revenues must be shared with the pertinent development region (38%) and district (12%) in which the facility operates (Shyam Upadhyaya, personal communication). Since 2005, with guidance from the Rewarding Upland Poor for Environmental Services Project, the Makwanpur District Development Committee has allocated some funds to upstream communities. However, more funds have been paid to communities surrounding and below the reservoir, as compensation for damage caused by its construction and operation. Thus, the Kulekhani case is more of a “payment for environmental damages” than a true PES scheme. Moreover, there is no mechanism linking payments with upstream community forest user groups (CFUGs) (Personal communication, Dil Bahadur Khatri). Instead funds are disbursed to Village Development Committees, who decide how to spend them.

Another example of a PES scheme is at Rupa Tal (Lake) in Kaski District, where the local Rupa Lake Rehabilitation and Fisheries Cooperative compensates upstream communities for forest and soil conservation efforts, which enhance water quality and fish stocks in the lake (Regmi *et al.* 2009). The Rupa Tal case includes direct compensation to CFUGs and incorporates an effective local benefit-sharing mechanism. However, upland communities are not fully aware of the environmental impacts of their farming and forestry practices, and lowland communities still receive most benefits from the lake’s resources (*ibid*).

There are other, informal PES systems scattered throughout Nepal; and mechanisms that privilege the provision of biodiversity, such as ecotourism and certification of timber and non-timber forest products. It is important to document diverse examples of formal and informal PES schemes and learn from their successes and failures. Although most are not PES schemes in the strictest sense—because they do not include a system for measuring, reporting and verifying forest management outcomes—they can provide valuable insights for the design of future carbon trading schemes, especially regarding institutional arrangements and benefit-sharing mechanisms. Furthermore, although Nepal has few documented PES schemes, there are many international examples that can shed light on the scope and design considerations for PES and

carbon trading schemes (e.g., Bond *et al.* 2009, Ogonowski *et al.* 2009).

### **Nested PES regimes and multilevel forest governance**

It is also important to promote the ‘nesting’ of environmental services by viewing carbon as one of many critical environmental services provided by forests. Other complementary services include water supply for domestic, industrial, agricultural and hydroelectric use; protection of biodiversity and cultural resources; provision of scenic beauty; flood and soil erosion control, and the supply of food, medicines and fuel (Bond *et al.* 2009).

Environmental services could be nested in conjunction with and/or within carbon trading mechanisms such as REDD. Some cite the need to combine diverse PES mechanisms and markets at various levels (Ojha *et al.* 2008, Pokharel and Byrne 2009). This could include local arrangements for provision of clean water and local resources (e.g., Rupa Tal); regional examples of compensation for water supply and erosion control (e.g., Kulekhani); and global carbon payments. Such nested schemes should be further explored and tested.

Within REDD itself, there is growing concern for the need to go beyond carbon to include biodiversity and/or livelihood benefits. The methods and costs of measuring these additional benefits have not been worked out, but voluntary standards exist, such as the *Carbon, Community and Biodiversity Standards* and *Plan Vivo*. Pilot projects based on these voluntary standards could play a crucial role in building insights and capacity for the design and implementation of REDD.

Furthermore, Nepal will not be able to implement an equitable, efficient and profitable REDD program unless it can influence the international policy-making process in its favor; and resolve more fundamental issues impeding effective forest governance—particularly ambiguities in the legal, policy and institutional frameworks; the discretion exercised by public officials at all levels; and resulting constraints on the civil, political and resource ownership rights of forest users.

### **Conclusion**

It is becoming clear that REDD is not a universal solution for local communities in Nepal, especially where forest conditions have been improving for several years. Thus, it is imperative to innovate alternative schemes for rewarding the providers of diverse environmental services and pursue different models of forest carbon trading, to expand comparative learning and future options. Nepal and countries with similar forest conditions and governance regimes should not put all of their eggs in one ‘REDD’ basket. They should adopt a bottom-up ‘patchwork’ approach, pursuing participatory action research on multiple opportunities ([voluntary carbon market](#), [PES schemes](#), and [sustainable forest products](#)), including those that may have lower potential financial returns, but also lower social and economic risks; and those that promote direct linkages between buyers and sellers of environmental services, and local control over livelihood assets and income.

For REDD to succeed and contribute to equitable and sustainable development in community

forestry, it must be built from the ground up, carefully considering the lessons from more localized PES schemes; key elements of governance at multiple scales (i.e., laws and tenure rights, institutions, decision-making and information-sharing processes, accountability systems, and conflict resolution mechanisms); the interests of local communities, poor and marginalized groups; and the roles and incentives of all concerned stakeholders.

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