## Final Report 31 Dec 2012 ICIMOD / NETIF

### **Activities accomplished in summary**

The PES agenda at ICIMOD and planned activities were conducted with satisfactory results. Collaboration between ICIMOD, NETIF and Forest Action was instrumental in achieving progress made so far although a full PES scheme for Sundarijal watershed, inside Shivapuri-Nagarjun National Park (SNNP), is yet to be realized. Public awareness about conservation and PES approach increased significantly. Media brochures, both in English and Nepali were produced and disseminated widely. A video highlighting the environmental value and current concerns in Sundarijal catchment was produced and aired through national television. The lessons from Kulekhani PES scheme continue to be of interest among visitors and researchers.

The following sections are brief reports on components in line with the MOU between ICIMOD and ICRAF.

### **Component 1: National Policy Framework**

Policy analysis conducted in the context of protected area (as in the case of Shivapuri-Nagarjun National Park), shows that in Nepal since 1980s, there is a gradual shift from control-andcommand towards participatory, benefit sharing and shared responsibility between park authority, local communities and ecosystem service beneficiaries. The Buffer Zone (BZ) management policy is a milestone in decentralizing the conservation sector of Nepal. Significant support was provided to the national park authority in preparation for implementing BZ policy in SNNP. The BZ concept emerged as a participatory conservation approach that provides local communities to contribute to conservation as well as benefit sharing as a right issue. The legal provision allowing local communities to receive 30 to 50 percent of the park revenue can be tailored under PES umbrella. Series of consultations and organized meetings were held and follow-up discussion with local communities, park authorities as well as the corporate sector (e.g. water distribution company, hydropower generation company and business and tourism sectors) to develop a PES scheme. Although PES is considered as an alternative resource management approach for protected areas, existing rules and regulations related to conservation and national park management need to be amended. Sustainable provision of ecosystem services and payment mechanism will require policy changes as well as institutional set-up. The current political instability and absence of parliament are hindrances to policy improvement for mainstreaming PES.

The REDD+ demonstration project, funded by Norwegian Agency for Development Cooperation (NORAD), made rapid progress. Under the umbrella of PES, financial rewards for carbon sequestration were provided to community forest user groups in Dolakha, Gorkha, and Chitwan districts of Nepal. This was done through the first-ever pilot Forest Carbon Trust Fund in Nepal. A guidebook for fair and efficient reward distribution at local level was published. Efforts are underway to replicate this work in north-east India, Bangladesh, Myanmar and Pakistan.

# **Component 2: Quantifying Environmental Services and Identification of ES buyers**

Economic valuation of the water services in Sundarijal catchment of SNNP has been conducted. An MSc study was initiated to assess the land use change and impact on key ecosystem services. The study indicated ongoing deforestation inside the protected area (within Sundarijal catchment) due to (illegal) harvesting of firewood for (illegal) alcohol production due to lack of alternative livelihood options for the people living in the villages inside the national park. The local communities are aware of the impact of deforestation on ecosystem services (primarily on water quality and quantity). Likewise, an assessment of water quality in Bagmati River (inside Sundarijal catchment) was conducted using macro-invertebrate indicators. A rapid assessment method, including water quality assessment, was developed as a part of rapid appraisal tool in the context of PES. Likewise, participatory valuation of ecosystem services was tested and recommended for wider use in the region.

A recent research (part of PhD field study) considered the conceptualization of equity in designing contextually appropriate PES. The primary rationale for using the capabilities approach in considering equity for ecosystem services is the distinction between means and ends. It is the entitlements to do and be which should be distributed fairly and equitably through PES 'payments' rather than the resources (e.g. cash) or institutional arrangements. The linkage of capabilities that derive from the potential benefits of ecosystem services can result in enhancements in well-being that are connected to socially negotiated institutional arrangements and management practices.

### **Component 3: Intermediaries Enabled**

In the Sundarijal PES context, there is a complex network of agencies involved - Department of National Park and Wildlife Conservation (representing the Nepalese government), local communities living in and around the SNP, Nepal Army guarding the park, Kathmandu Upatyaka Khanepani Limited (or KUKL, representing the water users in Kathmandu), Water Supply Tariff Fixation Commission, local communities living downstream. Based on the recommendations of the feasibility study, partnership was formed with NETIF, a local NGO promoting conservation and alternative livelihoods in Sundarijal catchment. Necessary support in the form of training, exposure visits, media products were provided to enhance the capacity and confidence of NETIF staff to take the intermediary role in developing a PES scheme. Numerous activities were organised to enhance the awareness about conservation and PES aproach amongst local communities were organised through NETIF. Visits were organised for local leaders from Sundarijal watershed to learn from successful implemenation of Buffer Zone policy in other protected areas. As of now, all villages in the buffer zone of SNNP have provided written consent to initiate the policy in SNNP. Meetings with potential buyers of water service from Sundarijal (KUKL, High Level Bagmati Water Management Board) were also organised. The final national workshop held in December 2012 concluded that while there is ample scope, potential and advantages of implementing a PES scheme in Sundarijal, rules and regulations including policies for service beneficiaries to contribute towards natural resource management as in protected areas must be institutionalised. In Nepal, the absence of parliament, frequent

change in officials in government and state agencies make is difficult for policy improvement in the near future. The Buffer Zone policy in the national park, as a potential rewards for local communities for their conservation efforts will be initiated in the near future.

### **Component 4: Action Research**

Much effort was spent over the last two years to develop a PES scheme for Sundarijal catchment. Reluctance of local water and electricity companies, frequent change in officials and lack of regulations are major obstacles in promoting PES approach in natural resource management. While local awareness about conservation of protected area, ecosystem services and reward schemes has risen significantly. The Sundarijal Environment Committee, established with representatives from all three villages, major local political parties, Secretary of Village Development Committee, local leaders is now actively and independently following up with relevant agencies. Eco-clubs at schools were supported for conservation awareness engaging local university and clubs.

### **Component 5: Mainstreaming rural development**

RUPES activities in Nepal provided a good learning experience for institutions both inside and outside Nepal. The PES scheme at Kulekhani continues to draw visitor and researchers. While the concept is sound and relevant, the PES scheme has not yet achieved much success in terms of improving ecosystem services and contributing to local livelihoods. The lessons are communicated through media products, video on television, workshops, student research and guest lectures at universities. The incentive or reward mechanism is seen as an essential component of the emerging paradigm of Green Economy and Sustainable Mountain Development. Efforts are underway to replicate the experience of Nepal on PES and ecosystem valuation to ICIMOD's other regional member countries. Some universities have included PES in the curricula with numerous students researching on various aspects of PES in Nepal. A regional workshop on PES is being organized in March 2013 to promote sharing of lessons from PES initiatives in the Hindu-Kush Himalaya region. The lessons from RUPES activities in Nepal will be a major input to the workshop.