# Over view of Payments for Environmental Services in Hindu Kush Himalaya context 

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## The problem

The Hindu Kush Himalaya (HKH) region known as the Himalayan water tower is a life line to nearly 1.3 billion people living upstream and downstream. Environmentally, this region is a biodiversity hotspot, but one that is undergoing changes and degradation at an alarming rate. In the past, governments in the HKH region have developed numerous policies for managing and conserving the fragile mountain environment. However the mountain environmental resources continue to degrade unabated because many of such policies relied on regulatory instruments that did not consider the contextual and local realities. For instance, upstream communities that are stewards of water, watersheds, forests, biodiversity and highland pastures were not recognized by the lowland populations. In fact, much of the ecosystem services provided by the HKH region are either under-valued or not recognised by its users. In realization of this problem, there is now a new paradigm emerging in conservation and management of environmental resources by adopting innovative mechanisms that are tied with incentive, is flexible, is voluntary and contextualizes the socioeconomic reality. This shift in paradigm calls for institutions to develop incentive based mechanisms that are fair, equitable and where benefit flows from the users to the service providers.

## What is incentive based PES?

Incentive based mechanism can be very broad and include many types of incentive mechanisms, the focus in ICIMOD lies on Payments for Environmental Services. From an economic standpoint, PES is characterized by their market mechanism within the broader framework of incentive based mechanisms. But as there are few developed markets in ecosystems services, many PES projects implemented to date also rely on non-market based mechanisms such as benefit sharing.

Payment for Environmental Services is an incentive based mechanism that is being promoted across the developing world with the claim that the provision of economic incentives is vital to bring about sustainable management of ecosystems and thus, leading to improved livelihoods. PES functions when there is economic benefit at the users end and are willing to pay for their benefit to the suppliers of environmental services. Willingness to pay for the additional benefit (demand side) and wiliness to accept the payment for supplying additional environmental services (supply side) are the critical components for PES mechanism to function.

Most of the globally renowned and well documented successes stories in implementing PES come from Latin American countries. There is also now growing interest among the HKH countries in this area. In recognition of incentive based mechanisms, China has implemented Upland Conversion Programme while India has initiated the Watershed Development Programme to reduce floods and droughts. In addition, there are now benefit sharing policies in the hydropower sector in most of the HKH countries.

## Rationale for PES

The impetus and procedures behind PES is to recognize and value of service providers and move towards generating compensation or payments for services used by the society, groups or individuals removing free riding. The incentive based mechanisms stimulated by PES mechanisms primarily help to realign private and social costs and benefits by accounting for externalities. This in an economic language stresses on: 'corrects market
failure' and increases the welfare of the society by removing free riders and valuing the services.

PES mechanism may be able to partly replace regulatory instruments for preventing environmental degradation with incentive based instruments that can function at global and local levels. This requires developing appropriate and robust governance and institutional setting that addresses equity and equality issues while implementing the PES incentive based mechanisms.

## ICIMOD's Framework on PES

Climate change, globalization, and the resulting changing population dynamics and land use are the main drivers of environmental degradation in the HKH region. To address mountain specific issues on water, climate and livelihoods, PES as a policy instrument has been identified by ICIMOD that requires promotion in the region.

In 2009, under the lead of Economic Analysis Division (EAD), a working group from all three Strategic Programmes has developed an approach on how to mainstream PES as an Incentive Based Mechanism for ecosystem services into ICIMOD's programmes by developing a framework for PES. The main aim of this framework is to build up capacity in the region by knowledge exchange and learning for different incentive based mechanisms turning ICIMOD into a key knowledge broker in the region.

Incentive based mechanisms under this new ICIMOD's PES framework comprise of: (a) payments, (b) rewards, (c) compensation and (d) benefit-sharing mechanisms, encompassing market based and non market based mechanisms. Under this umbrella, different institutional arrangements like communities supporting other communities for watershed protection, state incentives for changing land use, eco tourism project, and reduced emission from deforestation and degradation (REDD) under the global climate accord are considered. They can function at different levels: from global level arrangements like REDD, to national levels (landscape level) and down to local level arrangements (at watershed related activities). Important ecosystem services in the HKH region are benefits from water and watersheds, multiple ecosystem services from forests and rangelands including carbon sequestration and biodiversity.

The incentive based mechanisms of PES are new governance mechanisms supporting community-based resource management. They are able to contribute towards sustainable and equitable livelihoods and poverty reduction in the mountain regions when they are setup in the right way. Issues to be explored in the region are the valuation of ecosystem services, enabling policies and institutions, efficient internal governance structures and the contribution to poverty reduction and equity.

