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Poverty Alleviation and Eco-Services

Finding Economic Solutions through Natural Capital Enhancement

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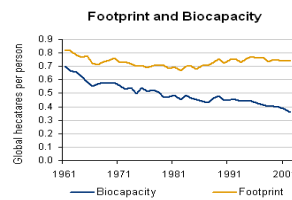


Introduction

The developing world has long struggled to find ways of alleviating poverty, often at the expense of the environment, and without focus on the needs of the poor. In forest dependent communities such as Himachal Pradesh in northern India, sustainable forest management offers a viable means of balancing conservation and use of forest goods and ecosystem services. However, the key to success is to ensure that the asset base of the poor is made the focus for improvement, resulting in meaningful improved livelihoods for the marginalized and rural forest dependent communities. This necessitates a change in policy that combines more effective governance with market strategies to produce economic results.

Environmental Degradation: Disproportionate Effect on the Poor

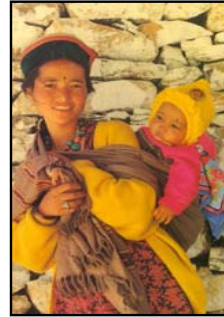
There is global concern that the Earth is unable to sustain the current level of population growth and human consumption. The human footprint and the depletion of natural capital is linked to human survival. In developed countries, per capita consumption far exceeds the global average, but in developing countries, sheer population growth is also aggravating nature's delicate balance. With global warming and increasing concern over natural disasters, the spotlight is on the poor who reside in areas of stress and are more vulnerable. Environmental degradation and poverty go hand in hand.



Global Consensus

There is global consensus that human survival is linked to sustaining natural capital. The emergence of the United Nation's Millennium Development Goals is a pointer in this direction.

- Goal 1:** Eradicate extreme poverty and hunger (people living on less than a dollar per day)
- Goal 3:** Gender equality (empowering women)
- Goal 7:** Ensure environmental sustainability (access to safe drinking water)
- Goal 8:** Develop a global partnership for development (markets and good governance)



Investing in the Earth

Two-thirds of the world's poor derive income from the environment. Investing in the environment would serve dual purposes: **1)** investment would directly alleviate poverty and **2)** investment would improve the global environment.

New research shows that investment in environmental assets is viable and can pay for itself. The cost-benefit ratio for investment in natural assets is low.

Investment	Cost-Benefit Ratio
Air pollution control	<1 to 15:1
Water (improved supply and sanitation schemes)	4:1 to 14:1
Soil and water conservation	site specific, up to 2:1

Strategic Solutions

Addressing global problems such as environmental degradation and poverty requires creative solutions. Two sound strategies are:

- Investing in natural capital
- Exploring ecosystem services

Natural Capital is:

- the Earth's stock of natural assets— mineral, plant, and animal—that yield continuous life-supporting goods and services such as oxygen, water, and erosion protection
- a resource distinctly different from man-made capital.
- coined for ecosystem valuation.
- the critical factor in sustaining human survival.



The Role of Ecosystem Services

Ecosystem services provide important functions, including protecting biodiversity, watershed management, mitigating global warming and providing income sources from activities such as ecotourism.

In the past, ecosystem services were taken freely, with little monetary value assigned. Today, there is increasing effort to value these services, thereby serving to both protect the environment, and also to provide alternative livelihood options through the creation of marketable eco-services.

There are four broad types of Ecosystem Services

Provisioning: food, water, air, wood, fiber, fuel



Regulating: climate, flood/ disease control, C sequestration, water



Cultural: spiritual, recreational, educational, aesthetic



Supporting: pollination, soil, genetic diversity, nutrient cycling



Making It Work: Policy and Markets

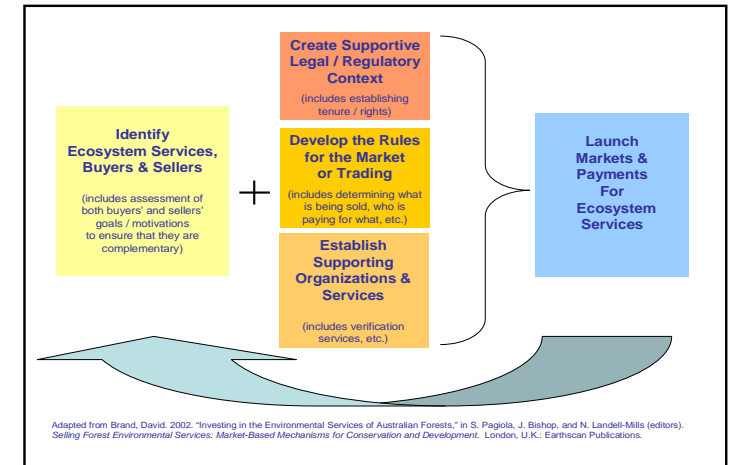
Making natural capital investment and eco-services marketing work requires:

1. Good government policies, including resource rights empowerment
2. Leveraging eco-services markets

Environmental Governance Plays a Vital Role

- Traditionally, ecosystem services were considered public goods and therefore regulated by the government. Even with the valuation and marketing of eco-services, the government should remain an important player in protecting, valuing, monitoring and developing ecosystem services.
- Securing usage rights to resources and property tenure is vital to establishing a sound eco-services system.
- Partnering with effective cooperative institutions that can help to leverage private funding for projects, and to monitor rights to services is key.
- Ensuring gender equality and a participatory mode for all stakeholders remains an important role for the government. The process should be transparent, involving all concerned stakeholders, and allow equal access to information and the courts.
- Removing harmful subsidies that encourage damaging environmental processes, and adopting policies and market mechanisms that encourage improved environmental performance is vital. This includes identifying products to sell, and providing start-up financing/access to credit and insurance.

Ecosystem Market Strategies



3 Prominent Categories of Payments for Eco-services:

Self-organised deals

These deals involve voluntary contractual agreements, whereby the buyers and sellers establish direct contracts, with property rights and enforceable contracts as clear key elements. These deals tend to emerge when transaction costs hinder private initiatives, for example, involving numerous small landholders or when the private parties lack the authority to implement plans. For example, Perrier-Vittel's payments to upstream landowners for improved land-use (\$230 million/ha/year).

Open trading schemes

Open trading schemes are created by the government when it establishes caps or targets on forest services and pollutants. Although the caps are regulatory in nature, they actually create a market mechanism. The imposed caps create a new market for trading allocated quotas, whereby an entity which exceeds the quota may purchase additional quota rights from an entity which has a surplus quota. Examples include effluent (temperature) control for the Willamette River, wetland banking in the US, and carbon emission off-set markets.

Public payment schemes

Public payment arrangements involve direct payments by governments to either encourage or discourage certain activity. For example, farmers in buffer zones may receive annual payments to conserve their forest. Examples include the Catskill watershed scheme of payments in New York and the Sierra Gorda Biosphere reserve, a watershed protection scheme in Mexico (\$60 million investment in 2004).

Conclusion

There is growing awareness that sustaining ecosystem services is vitally important for human welfare. At the same time, investing in natural capital is becoming an economically viable alternative to the pure extractive activities of the past. Poverty alleviation—especially in developing countries where the rural poor tend to rely heavily on natural resources—should include a strategy that involves full participation by stakeholders, equitable government power, and policies which encourage the market to value ecosystem services. The government must take a leading role in creating the regulatory and market environments that will encourage the development of an eco-services sector.

Growing Population

Increasing Consumption
Depletion of Natural Capital



Poverty and Environmental Degradation