

Mainstreaming Biodiversity into Poverty Reduction Strategies

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Introduction

The challenges related to conservation of the our planet's rich biodiversity are plenty and daunting and pose a severe threat to overpower our collective efforts to minimize the loss of flora and fauna, degradation of our ecosystems and devastation of natural resources. The vital units or entities of biodiversity conservation have been protected areas (PAs), but they are becoming increasingly vulnerable due to developmental pressures connected to demand of land, water and related resources. In response to these emerging trends, environmental conservationists and international institutional, multilateral organizations have developed and promoted a new biodiversity conservation paradigm known as Biodiversity Mainstreaming.

In essence this process is related to implanting biodiversity concerns, considerations into statutory legislation, public policies, schemes, strategies, programmes and practices of key public and private actors for promoting conservation and sustainable development. Being a newly emerging paradigm, biodiversity mainstreaming is a conservation approach that has yet to make a significant impact on aligning biodiversity preservation with developmental planning and practices.

Mainstreaming Biodiversity

Biodiversity is defined by the CBD as “The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems” (CBD, 2014b).

The concept of mainstreaming was included in the Convention on Biological Diversity (CBD) article 6(b) which called on the contracting parties to “integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross sectoral plans, programs and policies” (CBD 2003, p. 6).

Mainstreaming also contributes toward fulfilling article 10(a), which calls on parties to “integrate consideration of the conservation and sustainable use of biological resources into national decision making” (CBD 2003, p. 11) (Petersen and Huntley 2005).

The Convention on Biological Diversity (CBD) acknowledges that “economic and social development and poverty eradication are the first and overriding priorities of developing countries”. Its 2010 target to achieve “a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and the benefit of all life on Earth” was endorsed by the World Summit on Sustainable Development and, since 2006, also forms one of the targets within Millennium Development Goal 7, to ensure environmental sustainability.

The GEF-6 Programming Directions (2014b) states that “Biodiversity mainstreaming is the process of embedding biodiversity considerations into policies, strategies, and practices of key public and private actors that impact or rely on biodiversity”.

Mainstreaming enables biodiversity to persist across entire landscapes and seascapes. The societal failure to adequately price the economic value of biodiversity has undermined the long-term sustainability of mainstreaming efforts, which have



Image 1 : Coexistence of Birds in Gomi Kheda

often focused too narrowly on threat mitigation and palliative attempts to offset biodiversity loss.

As highlighted in Mainstreaming Biodiversity in Practice, Scientific and Technical Advisory Panel (STAP) Advisory Document, Mainstreaming biodiversity was developed as a means of addressing the fact that biodiversity conservation goals are viewed as distinct from, and sometimes even contradictory to the goals of development and economic growth. The higher priority put on development means that biodiversity work does not receive the political, social and financial support it needs to succeed (UNDP and UNEP, 2008).

Though mainstreaming has been referred to as “integrating” biodiversity into development, it has the added meaning of modifying that into which it is integrated (e.g. changing the focus of development policies and interventions toward incorporating the values of biodiversity). Economies and societies are dependent on biodiversity for clean water, soils, biomass, food, and other ecosystem goods and services. Conservation of natural ecosystems should be seen as a core part of development, as it provides valuable and cost-effective support to the development process, especially with respect to the poor (*Kosmus et al.*, 2012).

Mainstreaming biodiversity then has as its objective in the integration of biodiversity conservation and related sustainable use principles into policies, plans, programs and production systems where the primary focus has previously been on



Image 2 : River Loni in Gomi Kheda, Lucknow
Source: Srivastava, Anurag. Priyadarshinini, Deepti. 2016

production, economic activity and development, rather than on biodiversity conservation (Petersen and Huntley, 2005). Biodiversity and poverty reduction are interdependent and achieving both sustainably requires integration in both the directions a process known as 'Reciprocal Mainstreaming'.

Mainstreaming promises the need to link biodiversity and development strategies is increasingly recognized within the global policy frameworks that guide action towards their major goals. For example the linking of biodiversity with poverty reduction appears to be distantly related concepts involving different sets of policies, institutions, factors and actors. However the deeper analysis and growing debate on climate change reveals that this linkage is real, comprehensive and substantive. These two concepts are intrinsically linked. Poor people often depend on biodiversity both for their livelihoods and as a safety net against deeper poverty. Biodiversity also deals with the provisioning of ecosystem services such as food, water, herbs, regulating climate and preventing disease outbreaks. Major Target areas for mainstreaming biodiversity are:

- | Transportation
- | Energy
- | Agriculture and allied areas including forestry
- | Private Sector-Corporate practices
- | Developmental policies and planning at local,



Image 3 : Coexistence of Animals in Gomi Kheda



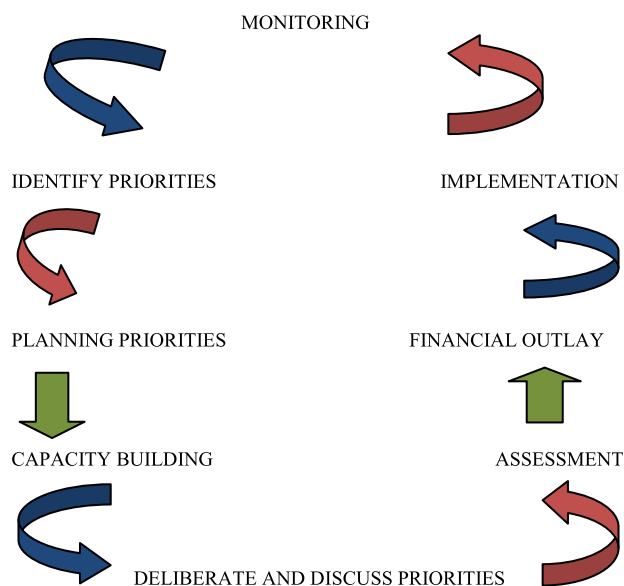
Image 4 : Agri- fields and tree diversity in Gomi Kheda (Mahesh Kheda village) Lucknow

Source: Srivastava, Anurag. Priyadarshinini, Deepti.2016.

- national and international levels
- | Consumption patterns
- | Economic, trade and taxation policies

Mainstreaming Biodiversity Framework

The mainstreaming biodiversity framework deals with identification of priorities which includes biodiversity–poverty mapping, critical input areas,



Source: Srivastava, Anurag. Priyadarshinini, Deepti.

Fig.1. Mainstreaming Biodiversity Framework

spatial distribution patterns, demographic and climatic peculiarities etc. The planning priorities cover forecasting, visioning, scenario development, perspective analysis, resource mapping, and tabulation etc. The capacity development is related to development of institutional and individual capacity building. It is concerned with creating sensitization, awareness and understanding. Thereafter the deliberation and discussion on identified priorities is initiated to facilitate the listing of filtered priorities. The assessment deals with consolidating the inputs, priorities, streamlining the road map, considering temporal dimensions and financial intake. The financial outlay is structured to achieve the implementation objectives of mainstreaming. The monitoring and evaluation is constantly performed for achieving the intended outcomes.

Dependence of the Poor on Biodiversity

Briefly the need for linking Biodiversity Conservation and Poverty Alleviation is based upon two basic premises:

- | The poor are dependent on biodiversity for their day-to-day livelihoods;
- | The biodiversity conservation can promote poverty reduction.

The biodiversity provides the poor a form of cost effective and readily accessible insurance

against risk, particularly food security risks, risks from environmental hazards, and health risks. As per the evidences the poor have few alternative sources for protecting themselves, they have a higher dependency on biodiversity for dealing with risk. The poor tend to depend disproportionately on relatively low value or inferior' goods and services from biodiversity, similarly, risk dependence of the poor on biodiversity takes the form of a last resort, due to absence of viable alternatives. This dependence of the poor on low value activities (and on biodiversity as a last resort against various forms of risk) may lead towards the 'debt and poverty trap'. To further substantiate the argument the Technical Series No.55 publication of Secretariat of the Convention on Biological dealing with dependence of various regions of the globe on biodiversity resources is worth mentioning.

The Table shows that the depth of dependence reported in these studies is high, although there is some variation when this is broken down by wealth class, with the poor typically showing higher levels of dependence.

Poverty Reduction

Similarly, “poverty reduction” implies lifting people beyond a defined poverty line—transforming them from poor to non poor. But often poverty is alleviated (i.e. some of the symptoms or poverty are addressed but people are not actually transformed from “poor” to “non-poor”) or it is prevented (i.e. people are prevented from falling into or further into poverty) rather than actually being reduced. The beneficiaries of conservation activities are often not “the poor” (i.e. those identified as living below a defined threshold of income or well-being) but simply rural communities or those who live local to conservation areas or who are primary users of living natural resources (who may or may not be poor) (Roe *et al.* 2010).

The World Bank, describes poverty as 'a pronounced deprivation in well being. To be poor is to be hungry, to lack shelter and clothing, to be sick and not cared for, to be illiterate and not schooled. But for poor people, living in poverty is more than this. Poor people are particularly vulnerable to

Source	Region	Evidence	Resource type
Coomes <i>et al.</i> 2004	Latin America	66% of households depend on resource extraction	Fish, palm products, timber, hunting
Dovie <i>et al.</i> 2007	Southern Africa	98% of households use NTFPs	NTFPs
Dovie <i>et al.</i> 2007	Southern Africa	91% of households use wild herbs	Wild herbs
Glaser 2003	Latin America	68% of households depend on mangroves	Mangrove resources, especially crabs and fish
Jha 2009	South Asia	70% of households depend on beedi making or firewood	Forests
Jodha 1990	South Asia	84-100% of poor depend on CPRs	Common pool resources
Jodha 1990	South Asia	10-19% of rich depend on CPRs	Common pool resources
Levang <i>et al.</i> 2005	South-east Asia	72% of households depend on forest products	Forests
Mamo <i>et al.</i> 2007	East Africa	42% of households depend on forest for grazing	Forests
Narain <i>et al.</i> 2008a	South Asia	Quartile 1: 77.5%, Quartile 2: 81.5%; Quartile 3: 72.8%; Quartile 4: 61.4% of households collect NTFPs	Fuelwood, dung for fuel, manure, fodder, construction wood
Shackleton and Shackleton 2006	Southern Africa	96-100% of households purchase NTFPs	NTFPs
Shackleton and Shackleton 2006	Southern Africa	8% (rich), 15% (middle), 36% (poor) households sell NTFPs	NTFPs
Sharma <i>et al.</i> 2009	South Asia	75% of household fuel and fodder needs from forests	Forests

Table 1 : Evidence on depth of dependence on biodiversity resources



Image 5 : Biodiversity and Livelihood linkage: A Software Engineer practicing Agro-Biodiversity and providing livelihood opportunity to the poor villagers in Gomi Kheda (Mahesh Kheda village), Lucknow.

Source: Srivastava, Anurag. Priyadarshinini, Deepti. 2016.

adverse events outside their control. They are often treated badly by the institutions of state and society and excluded from voice and power in these institutions' (World Bank 2001, p15).

One of the most important strategies to mitigate poverty is to create employment opportunities for the poor specially the rural poor in rural areas by pushing and promoting sustainable practices in the agriculture. As depicted in the image number 5, the Agro-biodiversity has brought a new wave of opportunity, even the highly educated professional are pursuing farming to create employment opportunities for poor people and reducing poverty and higher economic returns.

Conclusion

Mainstreaming is a social experiment involved in changing the value proposition of organization and people. It has vital consequences for the world and the entire humanity. Enhancing the quality of governance and creating accountable institutions are key determinants of success or failure of mainstreaming. The countries with strong support for Good governance would have higher possibility of achieving mainstreaming objectives and to enhanced capacity to tackle the most pressing mainstreaming challenges.

Good governance and strong institutions are recognized as perhaps the key determinants of project success or failure. A balance needs to be

struck between working in countries and sectors where there is sufficiently strong governance capacity for mainstreaming outcomes to have a good chance of success, and tackling the most pressing mainstreaming challenges in situations where globally valuable biodiversity is threatened but capacity is often lacking.

Mainstreaming approaches should be inclined towards to country specific and regional contexts for achieving clearly defined objectives and desired outcomes. These objectives and outcomes should operate in global broad based framework for targeting global environmental concerns and benefits, along with serving the national priorities. Mainstreaming in all its forms and settings will only work if people change their behaviors (Schultz, 2011). Yet recent work shows conclusively that increasing knowledge by itself does not lead to a change in behavior (McKenzie- Mohr *et al.*, 2012). Effective work could be done to assess the most effective ways to promote behavioral change toward biodiversity using methods such as social marketing and community empowerment (Wilhelm-Rechmann and Cowling, 2011, Bolderdijk *et al.*, 2013, Clayton *et al.*, 2013, Wilhelm-Rechmann *et al.*, 2013).

One of the vital aspects of mainstreaming is to identify national, regional or local environment concerns on the development agenda and thereafter mainstreaming the public policies and planning process with the overall developmental initiative. There could be situations when more often than not the conflict emerges between biodiversity conservation and poverty reduction however balancing is required through prioritizing. The role of political and administrative leadership is of immense significance in mobilizing the popular support and promoting people's participation for biodiversity conservation and development.

The political will at national and international forums is required to push for providing a facilitative framework. Integrating biodiversity and development approaches by focusing on economic factors that have significant impact on food, energy, tourism, water and energy. There is a need to promote deliberation and discussion involving various platforms for raising the voices and also

making them to be heard in policy mainstreaming. It is equally important to give space to the community and learn from their perspectives on common problems. Strengthening legislative and policy frameworks at national and sub-national levels; promoting biodiversity-friendly policies and facilitating their implementation, through by biodiversity-driven physical, economical, social and spatial planning will promote biodiversity mainstreaming.

It is hoped that this paper will facilitate the improved understanding of the concept of biodiversity mainstreaming in to Poverty Reduction Strategies and highlight the implementation challenges and opportunities, and will thereby strengthening the richness of biodiversity and ensuring sustainable development.

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