Lessons for **International Environment Governance**

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Introduction
sufficient understanding of public and private goods leads to challenges, particularly for managing a public good like biodiversity. As described by Reisen et.al.,¹ (2004), public goods (which generally are not provided by the market) are often not sufficiently distinguished from merit goods (such as education, which are provided by the market but where the social benefits exceed the private benefits). The lack of distinction implies boundless policy problems to the public sector that broils organizational responsibilities and accountabilities and hinders the search for cost-efficient policy solutions.

The OECD Working Paper 232² shows that donors have spent around 30 per cent of Overseas Development Aid (ODA) on global public goods during the period 1997-2001. A proper definition of Global Public Goods (GPGs) should be based on classical public finance conventions, especially the concepts of non-rivalry between users and non-exclusion from use. Non-rivalry implies that a good can be used by more than one user simultaneously, or used more than one time. Non-exclusion means that the good is available to more than one user at no or at negligible extra cost. Public goods are not (or insufficiently) provided by the market - where marginal utility must equal marginal cost for the provision to be efficient - because of the

² Ibid.
free-rider problem among potential users. Users are not willing to reveal their preferences and pay accordingly. Given the long lags in the production of GPGs (such as stable climate), the financing of GPGs today amounts, in effect, to a resource transfer to future generations. And as current generations in poor countries live in great poverty, they may prefer to consume and grow now rather than to provide global public goods for the future with their limited resources.

A definition of GPGs should also be confined to considerations of allocation, i.e. to leave out issues of distribution. This implies that if inter-generational concerns are to be accounted for, then this must be based on future utility estimations. Considering these, biodiversity can be described as the public good cutting across countries and regions with implications for both inter-generational and intra-generational equity.

The governance of biodiversity through the prism of national sovereignty remains both a challenge as well as an opportunity, particularly in its management as a public good for sustaining development. Since 1992, after the agreement to establish the Convention on Biological Diversity (CBD) through the UN Conference on Environment and Development (UNCED), nation states continue to have certain ideological differences on how to share biodiversity and link efforts of conservation and sustainable use with questions of ethics of equity, ways and means of accessing biodiversity, and sharing the benefits of its use. With a stronger and near global membership, the CBD provides a significant platform to discuss biodiversity governance issues. However, this

3 The problem of the ‘free rider’ in economic theory arises when individuals who do not contribute to its maintenance consume public goods/resources thereby free riding on the contributions of the rest of the community for the upkeep of the goods/resources. See also Standford Encyclopedia of Philisophy http://plato.stanford.edu/entries/free-rider. Retrieved 2 April 2012.
focus has been either limited, or has been devoid of specifics.

With the UN Conference on Sustainable Development (UNCSD or Rio+20) around the corner, this paper attempts to focus on lessons learnt from governing biological diversity (or biodiversity) for providing a guiding framework for international environmental governance (IEG).

This paper discusses the following key issues related to governance from an environmental perspective with focus on biodiversity:

- The framework of Rio + 20 outcomes considering biodiversity as the basis for sustainable development
- The optimal institutional framework on sustainable development where biodiversity plays an influential role
- The elements of green economy to which biodiversity can contribute to, and
- The options for enhancing institutional governance issues in managing biodiversity and ecosystems

This paper attempts to elaborate the above issues, besides providing a broad perspective to deal with actions on the ground.
Background and Context
The UN Conference on Sustainable Development (UNCSD) will be held in Rio de Janeiro, Brazil, in June 2012. Coming 40 years after the Stockholm Summit that led to the beginning of the defining elements of sustainable development, and 20 years after the UN Conference on Environment and Development (UNCED) that laid the foundations for implementation options for achieving sustainable development, this meeting will receive enormous political and strategic attention. This attention arises from the current political, financial, social and economic situation in the world that witnessed a flurry of actions chosen from a range of options to achieve sustainable development, and from the world that still considers itself at cross-roads when it comes to assessing impacts and charting future directions.

The Stockholm Summit in 1972 led to a series of efforts at the global, regional and national levels that ranged from the establishment of the United Nations Environment Programme (UNEP) to the creation of independent Ministries of Environment in many countries. Agenda 21, a 40-chapter blueprint for implementing the sustainable development agenda, details a series of multilateral environmental agreements (MEAs) such as the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), the UN Convention to Combat Desertification (UNCCD), and the declaration of Forest Principles. These Agreements and the creation of the Commission
on Sustainable Development were all the results of decisions that were taken following discussions at various multilateral levels that took place since the Stockholm Summit in 1972.

A quick review of the progress made on sustainable development presents a rather incoherent picture of achievements and successes. The ‘islands of success’ contributed much to the understanding of how to implement actions, but the surrounding ‘oceans of failures’ continue to daunt us. Such shortcomings range from ineffective organizations and inefficient coordination in implementation to in-surmountable problems arising from lack of policy and political focus.

An understanding of this has resulted in the agreement that the forthcoming UNCSD will have three objectives and two thematic issues to focus on. The objectives of UNCSD include securing renewed political commitment to sustainable development, assessing progress towards internationally agreed goals on sustainable development, and addressing new and emerging issues. The two key themes in focus are green economy in the context of sustainable development, and poverty eradication and institutional framework for sustainable development.

A draft paper focusing on sustainable governance published in 2011 alluded that the pace of globalization has far exceeded the ability of global systems to respond to sustainability challenges,

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resulting in continued strains in dealing with governance of sustainable development at the global level. Changes in strategic thinking and political opportunities provided by economic development have shifted the focus of sustainable development from a concept that is to be dealt with in under-developed and developing countries, to that which is common to everyone.

The theme of ‘institutional framework for sustainable development’ that is being addressed by UNCSD is the one that is currently receiving significant attention, albeit with limited clarity on the form and function of the new framework. Discussions thus far have focused on what the new institutional framework could be and the process thereof, than on the contents and how to make it work.

While assessing the ‘institutional framework’ and analyzing the components, it is evident that the reference to such a framework focuses on the role of institutions, processes, structures, coordination, synergies, and communication in creating an enabling environment for sustainable development. However, a
critical element missing in the discourses so far is the identity of the content in which such a framework could function.

In these discussions, governance is the most often used term. As described by Bas Arts\(^5\) (2005),

“to many, it refers to a ‘paradigm shift’ in the way we govern (post)modern societies and organizations. Due to processes such as ‘relocation of politics’ (from the state to international and sub-national organizations), ‘de-territorialization’ (the emergence of new political spaces beyond the territorial nation state), ‘diffusion of political power’ (from public authorities to semi-public and private actors) and ‘de-legitimization of the state’ (crisis of the welfare state, state failures, lack of performance), the old ‘paradigm’ of top-down, state-led, command & control ways of steering do no longer suffice. Instead, we find new forms of governance and policy instruments: network-like arrangements of public and private actors, self-regulation by business organizations, public-private and civic-private partnerships, emission trading schemes, certification programs”.

The concept of governance means different things to different people. Heritier (2001)\(^6\) distinguishes two meanings, Pierre (2000)\(^7\) three, Hirst (2000)\(^8\) five, Rhodes (2000)\(^9\) seven and

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Van Kersbergen and Van Waarden (2001)\textsuperscript{10} eight. Analytically, however, one may distinguish between ‘old’, ‘new’ and ‘all’ types of governance (Knill and Lehmkuhl, 2002\textsuperscript{11}; Pierre, 2000). The following table by Bas Arts captures the concepts and definitions of governance:

<table>
<thead>
<tr>
<th>Conceptualization</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Old’ governance</td>
<td>‘State Steering’ (top-down, command &amp; control)</td>
</tr>
<tr>
<td>‘New’ governance</td>
<td>‘new modes of governance’ (from public-private networks to private self-regulation)</td>
</tr>
<tr>
<td>‘All’ governance*</td>
<td>‘co-ordination mechanisms to provide for public goods’ (either public, private or mixed)</td>
</tr>
<tr>
<td>‘Normative’ governance</td>
<td>‘programs to renew public or private management’ (good governance, NPM, corporate governance)</td>
</tr>
</tbody>
</table>

(Bas Arts, 2005)

These concepts of governance, ranging from ‘Old’ to ‘normative’, are all captured in perhaps the discussions and negotiations of several biodiversity related multilateral environmental agreements and conventions, primarily the CBD.

As detailed by Annika Nilsson (2011)\textsuperscript{12}, the evolution of international biodiversity governance has seen many shifts and changes in the way the issues are framed. Recognizing the fact


that today’s governance architecture features a range of regimes and overlapping ways of addressing challenges, it seems logical to assume that biodiversity governance emerges as a key element to understand and comprehend global sustainability governance by focusing on issues such as equity, justice, participation and institutional peculiarities. Informal discussions with experts and negotiators on global (international) environmental governance as a key issue to be addressed during the forthcoming UNCSD meeting indicate that in the absence of some concrete identifiers to guide the process-oriented discussions, the results coming out of UNCSD is bound to be interpreted differently by different players. This could result in the continuing of the lack of clarity on achieving international sustainability governance.

In an attempt to elaborate the elements of discussions so far on creating an enabling environment for renewed
institutional frameworks and mandates, this paper focuses on the experiences gained in managing natural resources, especially biological diversity, at global, regional and national levels. It uses the vantage point of governance to provide some specific ideas for dealing with international environmental governance. In effect, this paper provides insights from the lessons learnt from biodiversity governance to evolve a guiding framework for international environmental governance.
Core Characteristics of Biodiversity Governance
1. **Participation in decision-making** – All relevant stakeholders, especially those who are managing biodiversity and using it, such as indigenous and local communities, should effectively participate in the decision-making. Such participation should be at all stages - problem identification, assessment, discussion, identification of policy and action oriented solutions, implementation, as well as monitoring and assessment of impacts. Participation in the evaluation of results is also critical. In addition to the modes and timing of participation, stakeholders should be informed, trained and empowered in the design and delivery of conservation, and use and benefit sharing modalities.

2. **Rule of law** – Legal frameworks should be fair and enforced effectively. These frameworks should be responsive to the needs of stakeholders who will be both directly and indirectly impacted by the enforcement of legal systems. Exchange of experiences from international and national legal regimes form the core of maintaining the relevance of rule of law.

3. **Transparency** – Transparency should be based on effective and efficient flow of information. Such information should be objective and un-biased. Transparency in decision-
making, management of systems, and sharing of benefits across stakeholder groups should be facilitated. There should be transparency in dealing with who decides for whom and what is critical, given the political nature of negotiations within the MEAs.

4. **Equity** – All stakeholders should have opportunities to improve and maintain their well-being that is ethical and guided by economic and social issues.

5. **Accountability** – There should be full accountability for all actions involving any stakeholder. Accountability should also exist in terms of institutional and decision making issues, both internally and externally.

6. **Strategic vision** – Biodiversity governance should be inclusive, comprehensive, specific, and result-oriented with appropriate indicators to review the impacts of decision-making and policy setting. While doing so, it should also be ensured that biodiversity is considered a public good with equitable sharing of both costs and benefits of conservation and sustainable use.

Based on the above, biodiversity governance can be defined as ‘the manner in which stakeholders participate effectively in policy setting and decision making that is based on rule of law, is transparent, and is based on equity and accountability in order to ensure that the strategic vision of conserving biodiversity and ecosystems, using them sustainably, and sharing of the benefits are enforced at the national, regional and global levels for current and future uses’.
If we consider the hypothesis\textsuperscript{13} that biodiversity protection is generally less progressive (pro-poor) than other environmental protection policies, we need to consider who loses out due to loss of biodiversity, how such loss will displace livelihoods, what alternate benefits accrue, how tenurial systems change, and what the poor will gain from such protection. Experience shows that as currently practiced, biodiversity conservation and its governance is probably not pro-poor on a net benefit basis. Robert Deacon, in his presentation at the OECD workshop in 2006, concludes that challenges posed by biodiversity governance include centralized political powers that encourage non-democratic governance, resulting in under-provision of public goods and costs of conservation being borne by the poor.

The results presented by the third report of the Global Biodiversity Outlook (GBO3)\textsuperscript{14} reveal that the trends in indicators suggest that the state of biodiversity is declining, the pressures upon it are increasing, and the benefits derived by humans from biodiversity


\textsuperscript{14} Secretariat of the Convention on Biological Diversity 92010) GBO 3, Montreal.
are diminishing, but that the responses to address its loss are increasing. One of the key recommendations of GBO3 includes the need to recognize and address the current biodiversity crisis while contributing to other social objectives. In this report, the underlying precautionary approach is based on past and current actions that resulted in countries agreeing to a new set of global biodiversity targets during the CBD COP 10 meeting.

Poor people in developing countries are particularly vulnerable to the resulting loss in critical ecological services. Nearly 1.3 billion people – over a fifth of the world’s population – live in fragile environments found in developing economies (see Table 1). Almost half of them consist of the rural poor. They live on lands prone to degradation and water stress, in upland areas, forest systems, and drylands. These marginal environments are areas “where the people’s links to the land are critical for the sustainability of communities, pastures, forests, and other natural resources” (see Table 1 and Figure 1). Considering this, it is important that we re-orient global discussions on institutional strengthening and governance at UNCSD around experiences and needs of the local people.

<table>
<thead>
<tr>
<th>Population in fragile lands Region</th>
<th>Population in 2000 (millions)</th>
<th>Number (millions)</th>
<th>Share of total (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America and the Caribbean</td>
<td>515.3</td>
<td>68</td>
<td>13.1</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>293.0</td>
<td>110</td>
<td>37.6</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>658.4</td>
<td>258</td>
<td>39.3</td>
</tr>
<tr>
<td>South Asia</td>
<td>330</td>
<td>24.4</td>
<td>1,354.9</td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>25.3</td>
<td>1,856.5</td>
<td>469</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>474.7</td>
<td>58</td>
<td>12.1</td>
</tr>
<tr>
<td>OECD Group</td>
<td>850.4</td>
<td>94</td>
<td>11.1</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>6.9</td>
<td>27.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,030.1</strong></td>
<td><strong>1,389</strong></td>
<td><strong>23.0</strong></td>
</tr>
</tbody>
</table>
Figure 1 – Percentage of Rural Population living in poverty and occupying fragile land (Barbier, 2009)

Many low and middle-income economies fall into a persistent pattern of resource use that shows a chronic problem of resource dependency with a concentration of large segments of the population in fragile environments, and rural poverty. Barbier studied 71 developing economies that have at least 20 per cent of
their total populations living in marginal areas. He grouped them based on the degree of resource dependency of their economy, measured by the share of primary commodities in total exports. Fifty-five of these developing economies have a primary product export share of 50 per cent or more, and could therefore be considered highly resource dependent. All of these economies also show a high incidence of rural poverty with at least 20 per cent of their rural population being poor. The 16 countries that have a large share of their populations on rural lands but are less resource dependent (primary product export share ≤ 50%) still have a high incidence of rural poverty. Only two countries, Jordan and Tunisia, have rural poverty rates less than 20 per cent.

Thus the concentration of populations in fragile environments and being resource dependent seem to be correlated. All but four of the 55 highly resource dependent economies have at least 30 per cent of their populations located in marginal rural areas. Ten of these economies have at least 50 per cent of their populations concentrated in fragile environments. In contrast, none of the less resource dependent economies have 50 per cent or more of their populations located on marginal lands.
Learning from Biodiversity Governance
Annika Nilsson (2011), Adam Smith (2009), Thomas Koetz et al. (2011), Amandine Bled (2009), Jorge Soberson and Jose Sarukhan (2009) and others have articulated a range of issues related to governance of biodiversity - ranging from historical perspective, evolution of the concept, and links to current global discussions on science-policy interface to the role of stakeholders, including business in biodiversity governance.

Summary of key lessons/experiences on governance of biodiversity

1. Regimes for governing biodiversity existed long before issues on sustainability became topics in global agenda. Examples include the Convention between the United States and other powers providing for the preservation and protection of the fur seal in 1911, and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) that was concluded in 2005.

16 ibid
2. The underlying principles of most of the regimes are conservation and sustainable use.

3. Institutions to deal with biodiversity and its governance were established as early as 1948 (the International Union for the Protection of Nature (IUPN) which is now renamed as International Union for Conservation of Nature (IUCN)). Agencies such as UNESCO and FAO also supported discourses on governance issues, beginning 1943.

4. Around the 1940s, two parallel discourses spearheaded by IUPN and FAO began to emerge focusing on conservation of nature and food security. Around the same time, the focus also began shifting from terrestrial issues related to biodiversity conservation and use to marine environments, with the UN International Law Commission (UN ILC) working on the legal and regulatory issues related to nature and natural resources.

5. A few early global legal regimes relating to biodiversity governance that were drafted by the UN ILC include the Convention on Fishing and Conservation of the Living Resources of the High Seas, which is an early example of international law regulating the use of a global common. Later discussions, under the aegis of the UN, resulted in legal recognition of exclusive economic zones that moved open-access governance systems to those controlled by national rights and responsibilities.

6. The International Biological Programme (IBP), which was a special programme that focused on ecosystem

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science between 1968 and 1974, was influenced by the conservation politics of the 1960s that put science of ecology and national parks in the centre stage. This resulted in the Intergovernmental Conference of Experts on the Rational Use of Biosphere Reserves that was organized in 1968. The outcomes of this Conference resulted in the establishment of the Man and Biosphere (MAB) programme under UNESCO (as a key UN agency to support the Conference along with FAO and WHO) that brought the resource-science-people link to the forefront.

7. Review of the MAB programme in 1981 indicated that there was skepticism towards global solutions and global models, and a wish to test ecological theories in the field to take into account the socio-cultural, economic, and political settings. Thus a shift from global governance systems to local governance systems and models began to emerge in the early 1980s.

8. Around the same time, the need to link development and environment also emerged, spearheaded by the Stockholm Summit in 1972, which was seen as a milestone in seeking political support to environmental governance. The agenda setting began to shift from the developed countries to developing countries beginning 1972. Organizations such as UNEP were born out of this discussion. During this time, issues of conservation of biodiversity began to be discussed in tandem with that of poverty reduction, development and well-being of people. The World Conservation Strategy in 1980s featured several concepts that attest to new ways of framing biodiversity\textsuperscript{22}. The strategy suggested various issues that are

\textsuperscript{22} Nilsson A E 2011 ibid
9. linked to conservation and biodiversity governance, ranging from the need for legal regimes and frameworks to manage biodiversity, to the need for an international convention on biodiversity.

10. The results of these developments and suggestions include negotiations to develop and adopt a range of international multilateral environmental agreements (MEAs), such as the Convention on International Trade in Endangered Species (CITES), the Ramsar Convention, and the Convention on Biological Diversity (CBD).

11. Negotiations for the CBD, held under the auspices of UNEP, resulted in an interesting shift in the way countries viewed biological resources. In a manner that was seen as a compromising position between the North and South, countries gave up the notion of biodiversity and genetic resources were a global common, and instead, accepted national sovereignty over the resources. This perhaps was a significant turning point in biodiversity governance discourse at all levels.

12. Parallel discussions under the FAO, emerging issues on intellectual property rights (IPRs), and issues under the World Trade Organization (WTO) have all contributed to growing complexities in governing natural resources and biodiversity at the global, regional and national levels. Unlike the 1970s and 1980s, when the discussions on biodiversity governance evolved over a slower pace helping experts and policy makers understand and prepare themselves to deal with change, the 1990s saw very quick evolution of concepts and interactions between varied stakeholders, making response times shorter and extended expertise to deal with multiple challenges of governance, politics and policy making.
The CBD is a turning point in the outcomes of the UNCED meeting, clearly defining the core principles of conservation that is linked to development. The third objective of the CBD, that focuses on equitable benefit sharing between people who own and people who use the biodiversity based on terms that are mutually agreed and with informed consent, is a forward looking component of the Convention that had the potential to lay the foundation to correct the inherent problems of dealing with biodiversity that is owned by the States but used by diverse stakeholders, including those beyond political borders. However, lack of clarity on how to define the principles of Access and Benefit Sharing (ABS) led to prolonged discussions on developing a global legal framework for action.

The tenth meeting of the Conference of Parties (COP) to the CBD made a historical step forward in agreeing on such a framework
by adopting the Nagoya Protocol on ABS. Though the negotiators to the ABS Protocol at COP 10 of CBD did not necessarily focus on the issue of governance as a basis for implementing the ABS principles and actions, governance has finally found a new home to get integrated with development agenda. In a recent report\textsuperscript{23}, Shroeder and Pisupati (2010) argued that ethics and governance form the core of ABS discussions, however underplayed their contributions might be. The report outlined the role of justice in exchange, distributive justice, corrective justice, and retributive justice as fundamental to governance issues, and argued that these concepts are largely ignored in today’s discussions relating to international environmental governance that governs both shared and private biodiversity.

Biodiversity governance deals with both inter-generational distributive justice (as suggested by Stockholm Summit and termed intergenerational equity) and international distributive justice

\textsuperscript{23} Shroeder and Pisupati 2010, Ethics, Justice and the Convention on Biological Diversity, UNEP and University of Central Lancashire.
(as detailed through most of the follow-up action after UNCED through financing, capacity building and transfer of technology).

Since 1972, we have seen the emergence of new models of governance relating to managing natural resources and biodiversity. The emergence of a variety of multilateral and regional agreements to share, manage and govern biodiversity has multiplied in tens every decade. New institutions, frameworks for cooperation and agreements for implementation have provided us with a range of lessons to deal with governance at all levels. However, it has to be agreed that many of these lessons are being largely un-noticed in the ongoing process-centered discussions and negotiations in preparation for UNCSD in 2012. This could turn out to be a significant mistake.

Shifting from a purely conservation and science-oriented issue, biodiversity governance has seen many facets. Ranging from a global commons perspective to national sovereignty perspective, preservation-centered action to sustainable use-based action, ecological inferences to economic linkages, science based decision-making to decision-making that looks for scientific rationale, state-centered management approaches to community-centered management approaches – biodiversity governance systems offer enormous opportunity for discussions on sustainable governance and international environmental governance.
Principles and Concepts from Biodiversity Governance
We have seen a plethora of actions in the governing of biodiversity based on a variety of approaches, participation of varied actors, and management of consequent dynamics. This led to the observation that biodiversity governance has evolved based on four types of relationships – the static relationship which is more hierarchical; the pluralistic approach where a variety of actors play specific roles; corporatization approach which brings together the State and the private sector; and the networking approach that brings together the public and private sectors.

There is no one model or relationship that can be said to be perfect for the management of biodiversity. Each has to learn from the other and collectively look at a new dimension of relationships between the stakeholders and institutions.

In order to further discuss and define current as well as future concepts and principles of biodiversity governance, there is a need to understand these issues within the context of sustainable development.

(i) **The Precautionary Principle**

The precautionary principle is in essence a management methodology that emphasizes caution before an action to prevent damage rather than to provide a response after the occurrence of damage. Though there are several interpretations and arguments of this Principle, the approach is something
that is generally accepted by governments and stakeholders in dealing with biodiversity as well as biosafety (safety in the use of biotechnology) issues.

Review of the National Reports submitted by the Contracting Parties to the CBD confirms that biodiversity conservation has been earnestly undertaken by many countries. Countries have moved away from the argument that conservation action is inefficient because of lack of information on the status and trends of biodiversity and ecosystems. This is a welcome development (refer to the assessments of third and fourth national reports at http://www.cbd.int/nr4) since lack of scientific evidence and information on the status of biodiversity should not stall countries and stakeholders from taking conservation action.

At the same time, CBD COP 9 decided that there would be a moratorium on climate related geo-engineering actions until there is adequate scientific evidence to show that such actions do not negatively impact biodiversity. Biodiversity governance is often challenged by the precautionary principle wherein the reason for inaction is difficult to understand as to whether it is the absence of evidence, or evidence of absence that drives policy making.

(ii) **The Polluter Pays Principle**

Though this is detailed as Principle 16 of the Rio Declaration, the OECD countries used this Principle as early as in 1972 in their Guiding Principles concerning the international economic aspects of environmental policies. This Principle, though not in a strict sense, has received much attention recently through the
‘biodiversity-offsets’ programme elaborated as a mechanism to deal with offsetting biodiversity impacts of development actions. Further, this Principle is reflected as part of the negotiations under the Cartagena Protocol on Biosafety as well as in the discussions related to Payments for Ecosystem Services (PES). Ongoing discussions relate this issue also with that of Green Economy in the context of UNCSD processes and outcomes.

Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting after appropriate prevention and mitigation measures have been implemented. The goal of biodiversity offsets is to achieve ‘no net loss’, or preferably, net gain, of biodiversity on the ground with respect to species composition, habitat structure and ecosystem services, including the livelihood aspects.

With regard to Payments for Ecosystem Services (PES), the critical, defining factor of what constitutes a PES transaction is not just that money changes hands and an environmental service is either delivered or maintained. Rather, the key is that the payment causes the benefit to occur where it would not have otherwise. That is, the service is “additional” to “business as usual,” or at the very least, the service can be quantified and tied to the payment.

The results of The Economics of Ecosystems and Biodiversity (TEEB) study released in 2010 indicate that implementation of this Principle has been rather limited and weak.

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24 http://bbop.forest-trends.org/
Biodiversity was seen as the common heritage for mankind to use and improve upon for millions of years. Much of the diversity, ranging from crop genetic diversity to livestock diversity and fish diversity, are all results of such an approach. However, during the past few decades we have seen a quick transition of looking at biodiversity as a common good of those countries where the biodiversity occurs (the sovereign rights principle). Even through biodiversity is no more considered a global common, the diversity that occurs in areas beyond national jurisdiction, including in places such as the high seas and in Antarctica, are not governed by any jurisdiction making these areas and the biodiversity that occur within them as a resource that is common to all. Bio-prospecting in such areas has risen to very high levels necessitating discussion on governance of such common areas.

Despite discussions in the multilateral agreements, such as the CBD or Conventions such as the UN Convention on the Law of the Seas (UNCLOS), there is still no clarity on how the common areas are to be governed. The recently concluded 4th meeting of the Working Group on Marine Biodiversity in Areas Beyond National Jurisdiction (June 2011) recommended the initiation of a process on the legal framework for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction, and to develop an agreement under the UNCLOS. This discussion could be potentially used to relook at the issue of biodiversity governance in common areas using the principle that biodiversity in these areas are common pool resources.
Equity issues in conservation largely focus on conservation, use, sharing, and prospecting. It is imperative to understand equity and to ensure that equity underpins all biodiversity management actions that can help decide on how to share biodiversity goods and services across society, holding the state responsible for its influence over how such goods and services are distributed in any society. As detailed by Shroeder and Pisupati, discussions relating to biodiversity management and governance could be discussed under three ethical frameworks as presented in Box 1. The debate about overcoming the deadlock at the theoretical level discussions on ethics is not to focus on high-level theories but on mid-level principles such as justice, respect, dignity, equality and freedom.

Experience based on participatory approaches in decision making as well as managing biodiversity

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**Box 1 Ethics defined**

**Rules-based Ethics**

The more technical term for rules-based ethics is deontological ethics (from deon, Greek, obligation). The focus in this type of ethics is whether the person musters the will to adhere to certain rules (e.g. do not lie, do not kill). Traditionally, this approach concentrated on obligations, hence the term. Nowadays, it has been developed with a focus on rights. The Human Rights Framework would be considered to be rules-based or based on deontological ethics as well as a part of the natural law theory - an issue we will discuss later.

**Virtue ethics**

Virtue ethics focuses on the character of the moral person, which has to be built through education and life-long self-discipline in order to produce virtues such as courage, justice, temperance, and wisdom. Those who succeed in developing the above cardinal virtues will flourish and lead a good life, according to Ancient Greek thought.

**Consequentialist ethics**

As the term suggests, consequentialist ethics focuses on the intended consequences of one’s actions. The most common type of Consequentialist ethics is called utilitarianism, which tries to achieve the greatest happiness for the greatest number by focusing on good outcomes. For a consequentialist, it does not matter much why one does a good deed, as long as the benefit is not an unintended consequence. For instance, under this understanding, one could donate to charity purely to impress somebody, and this would still be an ethical act.

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26 Doris Shroeder and Balakrishna Pisupati (2010) Ethics, Justice and the Convention on Biological Diversity. UNEP and University of Central Lancashire, UNEP
indicates that multi-stakeholder interaction is considered just, if all parties in the exchange receive an appropriate return for their contribution. Article 15 of the CBD, focusing on issues of access to genetic resources and benefit sharing, has been designed to deal with this component. However, there has been very limited focus on linking issues of justice in exchange, distributive justice, corrective justice and retributive justice within the discussions on ABS, making ABS a purely policy issue based on rights and obligations.

Of all the MEAs focusing on issues of conservation, use and governing of biodiversity, the CBD offers a unique opportunity to undertake implementation of actions based on ethical aspects. As described by Shroeder and Pisupati\textsuperscript{27}, the CBD deals with conservation of biodiversity for future generations (inter-generational distributive justice), fair and equitable sharing of benefits (international justice in exchange) and recognizing that traditional knowledge has to be accessed subject to prior informed consent (justice in exchange).

Operationalizing the principles of ethics and justice is not something new or one which has to be designed now. Subramanian and Pisupati\textsuperscript{28} (2009) elaborated 14 case studies on how communities are governing and using biodiversity in a manner that underpins many principles of ethics, justice and fair governance. Policy makers need to learn from these experiences too.

A number of recent studies and reports have argued that equity should be a central concern for development. These include the

\textsuperscript{27} ibid
\textsuperscript{28} Suneetha M Subramanian and Balakrishna Pisupati (2009) Learning from Practitioners: Benefit Sharing Perspectives from Enterprising Communities. UNEP and UNU-IAS.
In a recent working paper, Anderson and O’Neil (2006) argue that a ‘new equity agenda’ is emerging. Harry Jones (2009) sums up some approaches to dealing with equity in development as:

“There are three main arguments why equity should be central to government policy in developing countries, and why it should be a major concern of international development actors. First, equity is of intrinsic value: greater equity is a good thing in itself and is valued worldwide. Second, through its relationship with other goals (such as growth and rights), equity is a key ingredient in numerous conceptions of what ‘development’ or ‘good’ social change constitutes. Third, equity is instrumental to any development strategy through its causal links with other crucial outcomes, which make it an important factor in securing growth, poverty reduction, social cohesion and long-term change”.

These recommendations also fit in appropriately with the discussions on how to better support biodiversity governance systems in a manner that contributes to development that is not only equitable, but sustainable too.

The Principle of Access to information, technology and capacities Principles

Access to information, technology and capacities are considered as key to ensuring sustainable development. There is some evidence to show that access to information, technologies and capacities with regard to biodiversity exists\(^{33,34}\). However, the key challenges faced by stakeholders include the ones identified in Box 2.

**Box 2 Information, technology and cooperation challenges**

1. Inadequate assessment of technology needs and related capacity needs to adapt and apply transferred technologies in largely varying socio-economic circumstances
2. Difficulties in the identification of technologies and related policies for implementation
3. Need for further development of suitable policies, including the review of policies and measures possibly impeding the transfer of relevant technologies, such as on Intellectual Property Rights (IPRs)
4. Lack of focus on technologies that are relevant for biodiversity, implying that even implementation progress is frequently an accidental by-product of other policies, and that opportunities to incubate and scale-up existing technologies, including those developed and applied by indigenous and local communities, are far from being fully recognized and unlocked
5. Insufficient policies and frameworks to promote public – private partnerships in technology cooperation as a critical component for achieving sustainable development
6. Limited linkages between technology transfer needs and capacities to use and promote such technologies, resulting in wastage of time and resources
7. Lack of visibility of existing activities in particular through bilateral arrangements, caused by the lack of streamlined reporting on technology transfer and cooperation, largely due to limited efforts and information provided by countries on the issue of implementation of MEAs and other processes

\(^{33}\) UNEP/CBD/COP/8/Inf 9.Paragraph 88
\(^{34}\) Balakrishna Pisupati (2010) Technology transfer and cooperation under the Convention on Biological Diversity. UNEP.
(v) The Principle of Common but differentiated responsibility

Though this phrase was identified as key to achieving the outcomes of the 1972 Stockholm Summit, it was considered as a Principle only after the UNCED in 1992. This Principle was included in several legally binding international agreements such as the Kyoto Protocol in 1997 and the CBD’s Cartagena Protocol on Biosafety in 2001. Discussions that resulted in the Nagoya Protocol on ABS also used this Principle to identify the roles and responsibilities of providers and users of genetic resources. The portfolio of projects under the Global Environment Facility (GEF) also considers this as an underlying component in dealing with ‘global benefits’ issues.

(vi) Principle of Community Rights

Recent review of literature and studies aimed at understanding the interaction of communities with their natural resources and their responses to regional, national and global influences in terms of policies indicate two concrete trends. Firstly, local and indigenous communities are not averse to development and deployment of policies for betterment of their livelihoods but are negative to the ways in which such policies are developed and the nature of the policies themselves because of reasons of insensitiveness to their interests and lifestyles. Secondly, policy making is many times not cognizant of the underlying principles of rights based approaches practiced by the communities resulting in conflicts with rights of self-determination, territorial and land rights, right to development, practice of customary laws and affirmation of cultural and heritage rights resulting in violations of basic human rights.

Several approaches have been proposed to overcome the above misunderstandings and misgivings and work with communities in a manner their self-determination is given high priority. However, several of them use different approaches to dealing with empowering communities in asserting their rights and improving livelihoods. While some of them use over-arching principles such as a ‘well-being approach’ using ‘capabilities framework’ advocated by Amartya Sen\(^{36}\), others have used ‘rights-based approach’ through development of locally decided community based agreements and protocols\(^{37}\) (also referred to as Bio Cultural Protocols). Other approaches include the ‘Endogenous Development Approach’ that is based on local peoples’ criteria for development and takes into account their material, social and spiritual well-being\(^{38}\) and the establishment of ‘Community Knowledge Service (CKS) Approach’ that is emerging as an international movement of local and indigenous practitioners connected by face-to-face and virtual knowledge sharing platforms\(^{39}\).

While each and collectively all the approaches are aimed to improve the local livelihoods, there is a necessity to identify some linkages and commonalities between all these four approaches in order to convincingly deliver results at the level of communities. Though individually each of the above approach has been tested and used for many years now, there is still lack of linking these approaches for effective impact-making at the local and

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\(^{37}\) Kabir Bavikatte 2010 How Bio-cultural community protocols can empower local communities In Bio-cultural Community Protocols enforce biodiversity benefits: A selection of cases and experiences, Endogenous Development Magazine No. 06, COMPAS.

\(^{38}\) Anonymous 2010 Endogenous Development Magazine No. 06, COMPAS.

community level on issues such as assertion of rights, provision of opportunities for development, sharing and enhancing knowledge and addressing overall human development for communities.

Based on the above, the following can be concluded, Firstly, all the approaches are keeping communities at the nucleus to deliver results. Secondly, the overall frameworks being used relate to making the lives of communities better and empower them to deal with betterment of their livelihoods. Thirdly, they all engage communities at various levels for various purposes. While the rights based approach focuses on securing the rights of communities over the natural resources, the endogenous development approach focuses on improving development of local communities through enterprise development and the related. The CKS approach attempts to bring communities together to exchange experiences and good practices of such community initiatives and activities. The well-being approach using the capabilities framework captures these concepts into a form that comprehends the use of suitable indicators to assess progress made using the approaches.

(vii) Concept of innovative funding

Successful management of biodiversity and sharing of benefits require new and additional finances. Innovative financing thus forms a core principle to deal with both biodiversity and sustainable development governance. In line with such a need, countries are working on innovative financing mechanisms for some time now. The Monterrey Consensus of the International Conference on Financing for Development (2002) represents a crucial step towards achieving the goals of poverty eradication, sustained economic growth and promotion of sustainable development. Many developed countries have responded with time tables to
achieve the target of 0.7 per cent of gross national product for ODA by 2015, and to reach at least 0.5 per cent of gross national product for ODA by 2010. Some development cooperation agencies are increasingly emphasizing programme-based (rather than project based) finance and the provision of general budget support, linked to the implementation of agreed national strategies such as poverty reduction strategies and strategies for implementation of the Millennium Development Goals. This may mean fewer opportunities for finance to be earmarked by donors for biodiversity, and highlights the importance of mainstreaming biodiversity in broader national planning processes.\textsuperscript{40}.

\textsuperscript{40} UNEP/CBD/WG-RI/2/4
At the same time, there are opportunities to highlight the importance of biodiversity in poverty reduction and overall development efforts, as illustrated by the “Message from Paris: Integrating Biodiversity into Development Cooperation” from the participants in the Conference on Biological Diversity in European Development Cooperation, held in Paris in September 2006, and the integration of the 2010 biodiversity target into the framework of the Millennium Development Goals. Though there is only fragmented information available on how much of aid flows happened to support biodiversity conservation, the Rio Markers developed by OECD act as signposts of support to conservation action that may not be exclusive to biodiversity, though the OECD countries indicate that the support to biodiversity is almost on par with that of climate change and land degradation.
Issues Related to Biodiversity Governance
Structures

Many theorists on globalization and governance such as Rosenau, Nye and others have pointed to the increasing role played by non-state actors in governance at different levels and sectors. Recently, we have seen an increasing role of and demand for private sector and civil society involvement in biodiversity governance, ranging from establishing marine protected areas in private sites to devolving role for communities to decide on conservation action recognized by the State. Thus we are seeing a shift from ‘Government’ led efforts to ‘governance’ led systems.

Coordination and Partnerships

The experience of Liquorice management in Xinjiang Province in China can be cited as one of the recent examples of how coordination of State, provincial and local actions impact biodiversity governance\(^{41}\). With more than 4,000 unique species of medicinal plants occurring in this region that forms the basis of traditional Chinese medicine, Xinjiang went through land conversion and over-exploitation resulting in depletion of medicinal plants. Unclearly defined IPRs, and lack of guidance from the State on resource management and

Sustainable use seem to have caused the problem. Studies\textsuperscript{42} have shown that because of open access systems in the region, local communities were severely challenged, not because of over-harvesting, but because of lack of ownership issues, lack of intellectual property rights (IPRs) and lack of participation of local people in managing and governing the local biodiversity.

The social, economic and environmental aspects of biodiversity are important for sustainable development. The issues of economic value of biodiversity, its ownership, the sovereignty of nation States on biodiversity and the rights of local communities offer one of the most significant models for understanding governance issues based on varied practitioners, partners, and actors in this dialogue.

In an assessment of partnerships in biodiversity governance, Visseren-Hamakers\textsuperscript{43} (2010) analyzes 24 partnerships that contribute to biodiversity governance in different manners and with varying effectiveness. Box 3 summarizes such assessments. Some key lessons learnt from the assessments include:

- **Agenda setting and policy development are the most effectively fulfilled governance functions**
- **Private partnerships (between business and civil society actors) are generally more effective than public-private partnerships**
- **The highest effectiveness is found in private partnerships and State-civil society partnerships; partnerships between state and business actors are often less effective**

\textsuperscript{42} Ibid (2009)

• The effectiveness of market-oriented partnerships (which mainly use market as the steering mechanism and often develop certification standards) vary more than those which are more policy oriented

Types of Partnerships

A. Partnerships in forest governance – Forest Stewardship Council (FSC), Canadian Standards Association (CSA), Sustainable Forestry Initiative (SFI), Malaysian Timber Certification Council (MTCC), Programme for the Endorsement of Forest Certification Schemes (PEFC), Roundtable on Sustainable Palm Oil (RSPO), Roundtable on Responsible Soy (RTRS), World Bank-WWF Alliance in Forest Conservation and Sustainable Use (WB-WWF), Congo Basin Forest Partnership (CBFP), and the Asia Forestry Partnership (AFP)

B. Conservation Partnerships in Biodiversity Governance – the Great Apes Survival Project (GRASP), the Critical Ecosystem Partnership Fund (CEPF), and the International Coral reef Action Network (ICRAN).

C. Partnerships based on Thematic Issues – Collaborative Partnership on Forests (CPF), Global Bioenergy Partnership (GBEP), Climate, Community and Biodiversity Alliance (CCBA), BioCarbon Fund (BioCF), Roundtable on Sustainable Biofuels (RSB), Global Partnership on Forest Landscape Restoration (GPFLR), GRASP and CBFP.

D. Partnerships within and between communities – The experience of communities in establishing partnerships amongst themselves and with other communities and stakeholders is well documented through a series of case studies submitted to the Equator Initiative. Many organizations are currently supporting such initiatives such as UNDP, COMPAS Network, Natural Justice and others.

Modified after Visseren-Hamakes, 2010

Synergies

The number of MEAs that have been developed and adopted by countries around the world has proliferated during the past few decades. It is estimated that there are close to 500 MEAs and about 150 of them deal with biodiversity. A range of processes and institutions are assessing the impacts of these MEAs and their relevance to sustainable development and environmental governance since they were established. Ironically, the same
institutions and countries which are skeptical about the growing number of MEAs are the ones suggesting and negotiating more of these MEAs. Often, the governing bodies of these MEAs are particular not to ‘mix-up’ or ‘over-ride’ the mandates of other MEAs resulting in parallel processes, mandates and financing action that has resulted in significant wastage of resources and time in achieving synergistic local action to bring about change.

The Global Ministerial Environmental Forum (GMEF) convened by UNEP in 2000 and 2002 discussed the issue of strengthening environmental governance, resulting in the Malmo Declaration and the Cartagena Package. The Cartagena Package includes recommendations for strengthening capacities to improve synergies among MEAs. Reviewing the progress made through the Cartagena Package and the related issue of achieving effective management of environmental governance within the UN system, the Joint Inspection Unit of the UN undertook a review of effective administration of MEAs in 2008. The review found that the current framework of international environmental governance is weakened by institutional fragmentation and specialization, which is compounded by the UN system organizations not yet defining their responsibilities under the governance frameworks, despite calls for system-wide cooperation by the Secretary General and several resolutions of the General Assembly. It recommends the establishment of integrated management frameworks, result-based management approaches that are transparent and evaluable, and enhancing of synergies.

Based on these recommendations and other analytical studies on the need for synergies, the Environment Management Group

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44 UNEP/GC/GMEF SS.VII/1
46 Emphasis is that of the author
(EMG) of the UN prepared a report (unpublished), calling for enhancing coherence among MEAs, in particular the biodiversity MEAs. It cites some interesting challenges and short-comings in dealing with synergies and coherence that calls for development of parallel discussions on environmental governance (including biodiversity) under the UN General Assembly (UNGA) and the Conference of Parties (COP) of the MEAs resulting in possible contradictions to decisions made by these two bodies. It specifically calls for participation of Parties in the coherence and synergies discussions and decision making.

An important revelation of assessment of synergies within the biodiversity MEAs is that synergies and cooperation has so far focused on intra-Convention arrangements, neglecting the potentials of cooperative arrangements with implementing agencies at global, regional and national levels. This issue needs immediate attention if we wish to move forward in the IEG debates within the scope of Rio + 20 and otherwise. Recent experiences of achieving theme-based synergies between biodiversity MEAs under the Biodiversity Liaison Group (BLG) on using the outcomes of CBD COP 10 through the Aichi Nagoya Targets and the Strategic Plan of the CBD as an over-arching guiding framework is a unique opportunity that should not be missed by States and institutions.

Focus on synergies and mainstreaming should guide discussions in preparation for enhancing biodiversity governance at all levels, but these should be supported by political processes such as the Rio + 20, UNEP GC/GMEF and COP meetings. In the case of discontinued dialogue between these processes, we will lose yet another opportunity to deal with biodiversity governance during the UN Decade on Biodiversity (2011-2020).

Finances

The Paris Declaration on Aid Effectiveness is a landmark international agreement intended to improve the quality of aid and its impact on development. Being a political commitment, it was seen as a way to enhance coordination, transparency and accountability on aid flows and to improve prioritization between donor and recipient countries. A review of the implementation of this Declaration conducted in 2008 - three years after its agreement in 2005 - indicated that there were inconsistent results with respect to achieving the goals. Improving governance of the financial system must deal with new rules of transparency and simplicity that encourages incentive measures aligned to changes at the local level so that people feel the impact of progressive governance.

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Environment Focus of Bilateral ODA by Sector

Average annual value of commitments in 2007-2008

Outer circle - total bilateral sector-allocable ODA screened against the Environment marker (USD 40.0 billion)

Inner circle – bilateral ODA focused on Environment (USD 13.0 billion)

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Coverage – As not all DAC members report the environmental focus of their ODA, this chart includes only data on countries that reported against the environment policy marker in 2007-2008.

For reference, total bilateral sector-allocable ODA (including members not reporting on the environment policy marker), average 2007-2008: USD 71.6 billion.

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Recent statistics on aid provided by the OECD Assessment report in support of environment (based on statistics for 2007 and 2008) indicate that aid to CBD in particular and biodiversity in general is comparatively more if not equal to that of UNFCCC and climate change⁴⁹.

Lessons Learnt
The UNCSD meeting is seen as a key opportunity to discuss how international environmental governance (IEG) systems performed and should perform in the future. A series of discussions on these issues are continuing through several platforms ranging from the United Nations (both through the UN General Assembly until 2009 and through UNEP thereafter, and currently shifting back to UN General Assembly), the Commission on Sustainable Development and national and local NGOs in both developed and developing countries.

Though the key focus of discussions on IEG within UNEP is process oriented and deals with further strengthening of UNEP and its possible up-gradation to either a UN Environment Organization (UNEO) or World Environment Organization (WEO), there has been limited focus on how such a reform at the UN level could contribute to national and local action.

As described by Koetz et.al (2011), while institutional arrangements for interfacing scientific and policy making processes are emerging as key elements in the structure of a new IEG, formal understanding of its effectiveness is still limited. Debates on further assessment of current effectiveness of IEG revolve around issues of credibility, relevance and legitimacy, all of which seem to disown parts of most of institutional efforts. In the same paper, Koetz et. al. argue that science-policy interfaces (SPI) are institutional arrangements
that reflect cognitive models and provide normative structures, rights, rules and procedures that define and enable the social practice of linking science-policy making processes. In the same vein they confer that,

“if both the activities of making science is viewed as the systematic pursuit of knowledge and making of policy (politics) viewed as the process of bargaining, negotiation and compromise are influenced by institutional structures, then, by extension, their interactions should also be understood in institutional terms.”

Institutional mismatches and complexities often result in governance problems. With the emergence of a suite of MEAs, regional agreements on environment, along with governance challenges in biodiversity, stakeholders are confronted with a range of ‘do’s and don’ts’ in response to MEAs where even the States are unable to clarify the roles and responsibilities.

Institutional mismatches, conflicting mandates and lack of understanding and appreciation to mainstream on-the-ground action contribute to this institutional malice.

In the same vein, assessments are rolled out on ineffective implementation of MEAs, biodiversity MEAs in particular. However, the key challenge in these debates is the lack of leadership in showcasing the ‘do-how’ process while there is enormous literature on ‘know-how’ processes. In the absence of demonstrating, even on an experimental basis, on how synergies could be achieved through institutional strengthening and review of their mandates, we will continue to have debates on what did not work and what could work.

Continuing the arguments put forward by Noggard (2008) that ‘new ways of relating science to governance cannot be simply grafted onto the old philosophical underpinnings of science and governance’, it can be argued that there are many facets of biodiversity governance that occurs at the local level which are merely ‘considered’ when making policy as opposed to definitively ‘used’ to build new decision-making processes.

While on the one hand institutions have an important role to play in making the current lines of thinking change for better governance of biodiversity, they also have a role to play in demonstrating how the change could be brought in rather than merely ‘recommending’ the ideas for others to follow. Current debates on changing the way biodiversity and environment are governed fall exactly into this trap. This is a real danger as it amounts to mere ‘preaching’ rather than ‘practicing’.

The work of Ostrom (2005) on management of common pool resources managed through polycentric networks needs more analyses and possible absorption into biodiversity governance decision-making. Research has proven many times that in diverse settings, distributing authority, resources, and capacities results in greater contextual learning and responses, flexibility in dealing with specific situations, and sustainability in action.

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Conclusions
With the UNCSD meeting around the corner there is a need for us to show the world our commitment and leadership in sustainable development. In addition to process-oriented discussions related to international environmental governance and institutional strengthening, it is important global leaders also focus on more tangible results from UNCSD. Experiences based on biodiversity governance, role of biodiversity and ecosystems in sustaining development and importance of biodiversity in achieving the MDGs\textsuperscript{53} offer a substantive and focused opportunity to translate the discussions on sustainable governance and strengthening the implementation of decisions from Stockholm Summit to UNCED to WSSD to UNCSD.

The following are 10 Principles of Biodiversity Governance that need urgent attention to be translated into action.

1. Conservation and development through common but differentiated responsibilities

2. Decentralized decision-making

3. Mainstreaming and synergies

4. Institution strengthening and empowering stakeholders

\textsuperscript{53} Emilie Warner and Balakrishna Pisupati (2003) Biodiversity and the Millennium Development Goals (MDGs). IUCN Regional Biodiversity Programme and UNDP.
5. Learning from the practitioner
6. Technology transfer, knowledge transfer
7. Transparency, accountability
8. Global response
9. Regional cooperation
10. Science based decision making

This paper has focused on analyzing the current limitations of international environmental governance through MEAs and highlighted the lessons that can be learnt from experiences of biodiversity governance at the local, national and international levels. The paper has further underscored the paradox where despite the surfeit of MEAs to address the various aspects of international environmental governance, the very same governance is hamstrung by a lack of synergy between these MEAs.

The paper also notes that the reason for a lack of an integrated management approach to governance lies in certain ‘old governance’ approaches to implementing MEAs. These ‘old governance’ approaches tend to be State- centered and rooted in an understanding of international environmental law as purely the domain of States. They have not kept step with the reality of biodiversity governance on the ground that is a result of a complex interplay between the State, the private sector, civil society and community actors.

As mentioned earlier, one of the two key themes of the forthcoming UNCSD is institutional framework for sustainable development (or international environmental governance). There
is a high likelihood that the UNCSD could go over the same old ground of repeating the need for greater coordination amongst the different MEAs without really identifying the heart of the problem. The current paper has therefore sought to analyze biodiversity governance from a variety of perspectives identifying principles, concepts, characteristics and lessons based on the latest research and experiences from the ground.

The aim of this paper has been to stimulate a rethink of international environmental governance by transforming some of the sacred cows of governance in MEAs to more effective governance systems based on empirical evidence from the field. Ultimately it is hoped that the arguments outlined here will help us move from: a) centralized State governance to decentralized polycentric governance; b) competing decision-making silos to integrated management systems; and c) ‘know how’ based on views of experts to ‘do how’ based on experiences of practitioners.

The forthcoming UNCSD discussions on the institutional framework for sustainable development are an unprecedented opportunity to deepen our thinking on international environmental governance. It is critical that the different stakeholders participating in these discussions force the governments in attendance to move beyond mouthing platitudes and keep step with the latest research and evidence on biodiversity governance. Our collective ecological future depends on it.