Item 6

Guidance on the integration of biodiversity policy with other development policies to scale up livelihoods of local populations

1. In paragraph 4(f) of the annex to decision XI/22 on biodiversity for poverty eradication and development, the Conference of the Parties requested the Expert Group on Biodiversity for Poverty Eradication and Development to "*Provide guidance to Parties on how to integrate biodiversity policy with other development policies to scale up opportunities for the strengthening of sustainable livelihoods of local populations, including job creation and prosperity through development in the management and maintenance of ecological infrastructure*."

Biodiversity is important, especially for the poor; ecosystem services can generate jobs, income, poverty reduction and support national development.

2. The ecosystem services that biodiversity provides are wide-ranging. They contribute as much to sustaining livelihoods, in a manner that can allow for a break in the poverty cycle, as to the provision of everyday necessities such as food and clean water. For instance, supporting and regulating services of soil formation and flood control, in particular in dryland areas, can provide the opportunity and freedom for greater investment in infrastructure development such as more permanent homes, schools and other community services, and opportunities for broader income sources through tourism and sustainable production to meet market demand[12].

3. While relevant to all communities, irrespective of their socio-economic status, it should be emphasized that biodiversity provides a range of benefits that are specifically critical to socio-economic development[3]. These include:

- Service delivery — delivering key ecosystem services through a green, cheaper and low-energy infrastructure (e.g. pollination; water provisioning);
- Risk-reduction — including disaster and climate risk reduction in key sectors (e.g. providing a diverse resource base that offers alternatives if one food crop fails);
- Direct financial value — through certain products and species that may be tradable (e.g. medicinal plants and animals; species attractive to tourists);
- National economic diversification — through habitat, species and genetic diversity that present options and alternatives (e.g. in tourism and forestry); and
- Intrinsic and cultural value — related to identity, tradition, social cohesion, recreation and spirituality.

4. More than a set of cottage industries, biodiversity-based products and services can be a real engine for growth. By way of an example, BioTrade is considered 'a catalyst for transitioning to a green economy' in Namibia. BioTrade currently contributes around 4.5% to Namibia's GDP; a recent UNEP

[1] Roe *et al*. 2011. *Biodiversity and Poverty: Ten Frequently Asked Questions – Ten Policy Implications*. IIED, London, UK.

[2] Fisher *et al*. 2013. Understanding the relationships between ecosystem services and poverty alleviation: A conceptual framework. *Ecosystem Services*. [Available online: http://dx.doi.org/10.1016/j.ecoser.2013.08.002i.]

[3] IIED and UNEP-WCMC. 2013. *NBSAPs 2.0: Mainstreaming Biodiversity and Development*. Report of the Second International Workshop, 8-12 July 2013, Entebbe, Uganda.

report[4] finds that the contribution of BioTrade to Namibia's economy could increase by 50 per cent over the next 10 years. Revenues from some BioTrade products have higher dividends than revenues from other, more conventional, economic sectors. In terms of poverty reduction, BioTrade has the potential to affect a quarter of a million people through income, and benefits are projected to be derived to around one million Namibians (roughly half the population) in the next decade. BioTrade is only one of Namibia's green sectors and a significant contributor to a successful green transformation in the country.

The degradation of ecosystem services especially affects the poor.

5. Poor people are most at risk when ecological infrastructure (the environmental means to supply ecosystem goods and services; described in more detail in para 8) is degraded. Whilst the poor are likely to suffer most from the loss of these goods and services, they often have the least power to mitigate the risks e.g. via purchasing insurance or alternatives. For example, the poor who are more likely to live in areas exposed to flooding, also tend to lack the means to protect themselves against the impact of these events (e.g. reinforced buildings) or to recover from them quickly (e.g. with cash to buy a new house, or insurance to repair damages). Similarly, whilst farmers in developed countries are able to purchase farm inputs such as pesticides and fertilisers to prevent soil degradation, farmers in developing countries are less likely to have access to the resources to enable them to do this. The viability of local agriculture in developing countries is thus often reliant on ecosystem services to perform these functions (e.g. wetlands as storm buffers or forests to control soil erosion).

6. Discussions of 'ecological infrastructure' should not only evoke a rural image; ecological infrastructure underpins the safety of human settlements through e.g. reduction of flood risk. Slums are typically built on marginal land, vulnerable to natural risks such as floods, fire and landslides. Again, ecosystem services can moderate these effects. For example, the conservation or restoration of vegetation helps to maintaining slope stability and prevent landslides. The importance of such links should not be overlooked - in 2010 around a third of the world's population lived in slums[5].

Consequently, the restoration of ecosystem services have great benefit for the poor; ecosystem-based adaptation is a good example of this.

7. As biodiversity continues to be lost and ecosystem degraded, ecological restoration is increasingly regarded as an important strategy for increasing the provision of ecosystem services as well as reversing negative trends[6]. However, it is not a straightforward process and conflicts can arise, especially if single services are targeted in isolation. Investments in ecological restoration can also provide tangible benefits for the poor. EBA is an example of this, gaining in momentum in recent years; an example of the benefits generated via restoration and EBA from West Arnhem Land in Australia included increased employment and economic participation of aboriginal communities and the avoided costs of destructive wildfires and the associated loss of biomass and ecosystem services[7]. As the poor are

[4] UNEP. 2012. *Green Economy Sectoral Study: BioTrade – A catalyst for transitioning to a green economy in Namibia*. UNEP, Nairobi, Kenya.

[5] CBD. 2013. *Biodiversity for Cities and Slums*, Get ready for 2015 Newsletter No.2. See also *Cities and Biodiversity Outlook*. [Available online: www.cbobook.org/].

[6] Bullock *et al*. 2011. Restoration of ecosystem services and biodiversity: conflicts and opportunities. *Trends in Ecology & Evolution* 26(10): 541-549.

[7] A project has enabled Indigenous fire managers to work with the broader community across 28,000 km^2 of Western Arnhem Land, and since then, the incidence of destructive wildfires has been reduced. In addition to reducing greenhouse gas emissions by an estimated 488,000 tonnes of CO2-equivalent during the first four years, the project has also; from, Colls *et al*. 2009. *Ecosystem-based Adaptation: a natural response to climate change*. IUCN.

most at risk, but also more likely to benefit from restoration, maintaining ecosystem services should not be considered a luxury by governments, but essential for the continued livelihoods of poor communities in developing countries. Calculating the value of these services is a necessary first step to bringing about sustainable management of natural resources, but the calculation is not solely monetary.

Making the case to policy-makers can be done, using language and evidence they understand.

8. In order to realize the benefits from ecosystem services, and to overcome the challenges of ensuring the correct policies are implemented, there is a need to understand the entry points to mainstreaming such issues into the appropriate planning processes. Essentially, this comes down to making a sufficient business case to development actors by demonstrating the cost benefits and the long-term sustainability of appropriate action - at the right time, and using rhetoric and evidence that is persuasive to them based on their needs. There is therefore a major need to understand policy and development processes, and how they can be influenced. Recognizing the 'messiness' of policy and decision-making processes, champions need to be creative and entrepreneurial to find and take advantages of 'windows' for change.[8]

9. 'Ecological infrastructure' can be a more appealing term for mainstream policy-makers who understand the value of - and need to invest in - other forms of infrastructure to generate income and jobs. It is a concept that can addresses the connectivity of ecosystems, and the provision of ecosystem services, including the mitigation and adaptation to climate change and minimizing natural disaster risks. The primary objective of 'ecological infrastructure' is the contribution to developing a greener and more sustainable economy by investing in ecosystem-based approaches delivering multiple benefits in addition to technical solutions, and mitigating the adverse effects of traditional infrastructure[9]. An example would be the use of ecosystem-based approaches (EBA) for coastal protection through marshes/flood plain restoration rather than constructing dikes. The potential for good returns from investments by governments in ecological infrastructure is high.[10] An example is services provided by the Nakivubo Swamp to the Greater City of Kampala, Uganda. In terms of water purification, it was estimated at US$2 million/year would be the cost of the manmade infrastructure required to provide a similar service, whereas the cost of managing the wetland in order to simultaneously optimise its waste treatment potential and maintain its ecological integrity is about US$235,000 per year[11]. As such, 'ecological infrastructure' is a language that decision-makers can intuitively understand, and tangible initiatives that produce results can often be a rallying-point.

International policy processes can support change.

10. The currently on-going Post-2015 UN Development Agenda and SDGs processes present a unique and important opportunity to address many of the current challenges and worries for the future in a proactive, coherent and cost-effective ways. It can be used as a vehicle to appropriately integrate all of the dimensions of Sustainable Development by taking into considerations biodiversity and ecosystems services as critical assets and substantial opportunity to achieve sustainable social and economic development in addition to a healthy and resilient planet for our survival.

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[8] E.g., Kingdon, J. 2002. Agendas, alternatives, and public policies. (2nd. Edition). New York: Longman.

[9] EEA. 2011. *Green infrastructure and territorial cohesion: The concept of green infrastructure and its integration into policies using monitoring systems*. EEA Technical Paper No. 18/2011. European Environment Agency.

[10] See TEEBChapter 9: Investing in ecological infrastructure. [Available online: http://www.cbd.int/doc/case-studies/inc/cs-inc-teeb.Chapter%209-en.pdf].

[11] PEI. 2008. *Making the Economic Case: A Primer for Mainstreaming Environment in National Development Planning.*

But policy-change is not enough; downstream interventions need to result.

11. While changing policy is important, it does not itself necessarily result in comprehensive change. In fact, at an upstream policy level, the links between biodiversity and poverty alleviation are relatively well-made, but this does not guarantee success on the ground. Downstream, progress is thin as development continues to drive further degradation of ecosystems and loss of biodiversity which result in poor people not benefiting adequately from the services they provide in biodiversity protection. More emphasis is therefore required on downstream interventions which generate tangible benefits for the poor. The bottom line is that society, in particular the poorest segments, depends on the essential resources that a healthy biodiversity and ecosystems provide.

The Expert Group may wish to consider the following ideas for possible inclusion in new recommendations and/or guidance for implementation

(i) Promote the concepts of 'ecological infrastructure' and related (e.g. green jobs) within relevant policy processes at domestic and international levels.

(ii) Promote the development of biodiversity-based products and services; facilitate small-, medium- and large-scale entrepreneurs to demonstrate innovative approaches, and then capture information on the contributions of such endeavours to poverty reduction, income generation, job creation and national accounts.

(iii) Explicitly promote the scaling up of successful initiatives; build scaling up strategies into the design of initiatives, where its intended to scale the intervention across geographies (beyond the national level) or sectors.

(iv) Encourage the development and implementation of "ABS Business Incubators"; institutional arrangements set up for converting biodiversity-based innovations into viable businesses. Specifically, these incubators in one or more countries would allow small- and medium-size enterprises to grow and position themselves to engage on ABS agreements under the provisions of the Nagoya Protocol. May be supported by the Global Environment Facility (GEF) and other financing partners.

(v) Collate case studies of, and develop guidance on, strategies for scaling up successful 'ecological infrastructure' and creation of 'green jobs' or 'green poverty reduction'.

(vi) Partner with the OECD to work on developing the evidence base and making business cases for such interventions, to provide policy support to government actors in developed and developing countries.

(vii) Ensure 'Biodiversity for Development' initiatives reflect the importance of urbanization and slum issues, and that guidance, tools, capacity building, etc. incorporate this dimension.
