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1 Introduction

Biodiversity is the variety of life on earth comprising species, ecosystem and genetic diversity. Conserving and sustainable use of biodiversity, as well as the fair and equitable sharing of benefits arising from the utilization of genetic resources are vital to social and economic development as well as to humanity’s survival, thus fundamental for sustainable development. Biodiversity is under threat by habitat loss, unsustainable use, and climate change to name a few. The rate of biodiversity loss as one of the dimensions of the planetary boundaries concept, has exceeded the most1. Forests are the most biodiverse terrestrial biome and serve as habitats for organisms, hydrologic flow regulators and soil conservers. Actions to protect biodiversity and forests are often outweighed by drivers of loss and degradation. This implies risks and constraints to all people.2 While protected areas cover 13% of the planet’s land, 6% of coastal and <1% open ocean area, one-third of ecosystems worldwide have been converted for human activities and another third has experienced degradation to varying extents.3

Biological diversity underpins ecosystem functioning and the provision of ecosystem services essential for human well-being. It provides, among others, for food security, human health, the provision of clean air and water; hence contributes directly to local livelihoods and economic development. The wealth of genetic resources is necessary for continuous adaptation of ecosystems and species. Even areas of the earth’s surface without or only under very extensive human utilization form part of essential “life support systems”.

The decline of biodiversity and forest threatens human welfare, especially the life supporting systems of rural poor and amongst the most vulnerable, including indigenous and local communities, women and children. 1.6 billion people4 depend directly on forests for their livelihood, including food, firewood, fodder, water, medicine, cultural and spiritual values. Those people are mainly the rural poor living in or around forests and complementing forest products with agriculture to satisfy their livelihoods. Forests cover 31% of global landmass and provide 80% of the world’s terrestrial biodiversity. Managed sustainably, they contribute substantially to all aspects of sustainable development.

2 Sustainable Development, Biodiversity and Forests

Investing in biodiversity and forest conservation and the sustainable use of their components is a contribution to sustainable development. Some benefits can be realized in the short term, but others can take longer periods spanning multiple human generations. On a daily basis, the importance of biodiversity for humanity lies in the various services,

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1 Rockström J. et al. 2009 Planetary Boundaries: Exploring the Safe Operating Space for Humanity
2 The Global Biodiversity Outlook 3 (GBO-3), 2010
which are delivered by healthy ecosystems. Biodiversity contributes to all dimensions of sustainable development (see table 1 next page):

Table 1: Three dimensions of sustainable development, focusing on biodiversity, including forests

| Economic Dimension | • Intact ecosystems provide goods and services\(^5\) such as inter alia genetic resources, wood, fibre, medical plants, clean water, carbon storage, pollination, regulation of pests and diseases, e.g. the contribution of insect pollinators to crop yields.  
• Three-quarters of the top ranking global prescription drugs contain components derived from genetic resources.\(^6\)  
• The protection of ecosystems like watersheds, have proven to generate high social benefits and economic returns. E.g. managing and restoring upstream watersheds with trees can be a cost effective method for conserving productive soils, regulating water flows and helping with water purification and ensuring its adequate supply, as multiple experiences in mountain areas have shown.  
• Restoration of degraded ecosystems and better use of traditional knowledge will increase both, economic return and the provision of ecosystem services (TEEB 2012) |
| Societal Dimension | • Biodiversity is closely linked to cultural, spiritual, traditional, recreational and religious values and represents a source of knowledge and education.  
• Nature in and around cities is often considered as a core element of effective urban planning, investment and management.  
• Livelihoods benefit from sustainably managed ecosystems, 1.6 billion people in the world depend on forests for food, shelter, fuel and medicine.  
• Biodiversity constitutes the basis of agriculture and global food security. Especially smallholder farmers in developing countries, including women farmers who account for 60-80% of all food production there\(^7\), depend heavily on continued availability and access to locally adapted crop varieties.  
• Society takes a lot of benefits from the existence of functional ecosystems and landscapes. For example healthy mountain ecosystems among others serve as safety nets and protect vulnerable people, especially women and girls, from natural hazards. |
| Environmental Dimension | • Genetic diversity is necessary for continuous adaptation of ecosystems and species and to build resilience for current and future needs.  
• Conservation and sustainable use of biodiversity is prerequisite for maintaining water cycles or soil nutrient cycles as well as to produce oxygen.  
• Intact biodiversity supports the sustainability of ecosystems and their goods and services, e.g. forests deliver services as they protect against natural hazards such as avalanches, floods and land degradation.  
• Healthy ecosystems help to regulate climate, e.g. through stocking carbon in their carbon pool and through supporting measures to adapt to the effects of climate change. |

3 International Processes on Biodiversity and Forests

On an international level, the Convention on Biological Diversity (CBD) is an important global instrument to protect and sustainably manage biodiversity. It was signed at the United Nations Conference on Environment and Development (UNCED, Rio 1992) and has presently 193 parties. In 2010, the 10th Conference of the Parties (COP) to the CBD adopted in Nagoya, Aichi Prefecture, Japan the global Strategic Plan for Biodiversity 2011-2020 with its five goals and twenty Aichi Biodiversity Targets, representing a universally agreed framework for action on biodiversity and a foundation for sustainable development for all stakeholders. The Strategic Plan was subsequently endorsed and/or supported by the governing bodies of other biodiversity-related conventions. Parties to the CBD have developed their national biodiversity strategies and action plans. Switzerland has adopted its national biodiversity strategy in spring 2012 and is currently developing a

\(^5\) The Millennium Ecosystem Assessment (MA 2005)  
\(^6\) Farnsworth et al., 1985; Masood, 2005  
\(^7\) CBD Secretariat, 2011
related action plan. At COP-10, Parties to the CBD have also adopted the **Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization** which aims to implement the third objective of the CBD. Switzerland is also a Contracting Party of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), which promotes the conservation and sustainable use of all crop varieties.

The **20 Aichi Biodiversity Targets** represent a modern and comprehensive approach to biodiversity, not only focusing on "conservation", but equally on "sustainable use" and "fair and equitable benefit sharing" – thus the three objectives of the CBD. The Targets contain numerous links to other components of sustainable development, such as food security, water quality, economic activities, urban areas, etc. Forests are covered in quite a number of targets.

The importance of forests for sustainable development has been recognized by the UNCED in 1992 through the adaptation of Chapter 11 of Agenda 21. The multiple roles and ecosystem services of forests as well as the importance of halting deforestation and introducing a sustainable management has been recognized. However, a legally-binding convention on forests has not been agreed upon in Rio and neither in the processes after Rio (Intergovernmental Panel on Forests (IPF) and the Intergovernmental Forum on Forests (IFF)).

In October 2000, the Economic and Social Council of the United Nations (ECOSOC), in its Resolution 2000/35, established the United Nations Forum on Forests (UNFF), a subsidiary body with the main objective to promote “the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end”. A non-legally binding instrument on forests was negotiated in 2002 that developed four global objectives for all types of forests (shortly known as the Forest Instrument). In spite of these efforts, forests have not been housed by an overall recognized convention and the forest agenda is treated in a fragmented way amongst the various multilateral environmental agreements and the UNFF. A thorough review of the UNFF process is underway since May 2013 and at its 11th session in 2015, the UNFF will decide upon the future international arrangement on forests. Simultaneously, various regional initiatives look at regional solutions for forests. E.g. in the UNECE region, a process is underway for the establishment of a regional convention on forests.

Other legal instruments in force promote sustainable trade such as the International Tropical Timber Agreement ITTA. The ITTA promotes the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and promotes the sustainable management of tropical timber producing forests. The REDD+ mechanism contributes to a range of policy goals in addition to climate change mitigation. It can promote biodiversity conservation and secure the provision of ecosystem services.

### 4 Existing proposals for the integration of biodiversity and forests in the post 2015 agenda

The **Millennium Development Goal** (MDG) 7 on environmental sustainability contains a target aiming for a significant reduction in the rate of loss of biodiversity by 2010. In addition, forests are recognized as a safety net for the poor. By having biodiversity and forests siloed into one environmental goal, their contribution to the socio-economic related

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8 Reducing Emissions from Deforestation and Forest Degradation REDD. The "+" includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks
MDGs was not taken into account. This experience has led to the realization of the need to consider biodiversity and forests in a more integrated manner, with a view to leverage their cross-cutting contribution for the achievement of other goals.

The report of the High-Level Panel of Eminent Persons on the post-2015 development agenda\[2\], has addressed biodiversity and forests in two targets under its proposed Goal 9: “manage natural resource assets sustainably”. 9c: “Safeguard ecosystems, species and genetic diversity” and 9d: “Reduce deforestation by x% and increase reforestation by y%”. In addition, the panel says that the value of natural resources and biodiversity should be taken into account in adaptation measures to climate change.

The report of the UN Global Compact\[3\] is recognizing the importance of biodiversity and the fact that it is a limited resource. Forests are covered in Goal 5 on Good nutrition for all through sustainable food and agricultural systems through a target to “Stop and turn back annual increases in greenhouse gas emissions and deforestation resulting from farming and livestock production by 2020”.

According to the Sustainable Development Solutions Network SDSN, securing ecosystem services and biodiversity as well as ensuring good management of water and other natural resources, is one of ten priority challenges of sustainable development. Biodiversity loss is considered as one of the main threats to end extreme poverty. The SDSN proposes a standalone goal: “Secure ecosystem services and biodiversity, and ensure good management of water and other natural resources”. In addition, the SDSN addresses forests specifically in target 6b “Halt forest and wetland conversion to agriculture, protect soil resources” as well as in target 8b on improved practices in forestry to reduce greenhouse gas emission.

The Report\[11\] on biodiversity makes four complementary recommendations: Biodiversity should be integrated into overarching goals, specific biodiversity-related targets and indicators should be integrated into goals on food security and nutrition, water and health. Biodiversity should also be included as a central component of goals for global “life support systems” such as goals relating to the protection of ecosystems, including land, forests and oceans, and their natural resources. Lastly, the SDG framework should provide the enabling conditions for the conservation and sustainable use of biodiversity.

The issues brief on forests highlights two main options to include forests within SDGs: (i) a stand-alone SDG on forests that particularly addresses the fact that global forestry has been dealt with in a highly fragmented way in the past and that a separate goal under the SDGs could ensure a comprehensive, consistent and balanced approach to forests and their relation to people and sustainable development. (ii) A cross-cutting SDG focusing on land, forests, biodiversity, energy, water and other renewable natural resources that would highlight the full value of natural resources and their multiplier effects not only to the environment but also for economic growth, social development, gender equity, peace and security. Under such a goal, it is presumed that the various existing targets on terrestrial

\[3\] Issue briefs on biodiversity and on forests are prepared by technical support teams for the Open Working Group’s discussion
natural resources, set forth in the outcomes of major UN conferences, such as the Aichi Biodiversity Targets, the Forest Instrument and the sustainable land management approach of the UNCCD could be aligned and utilized.

5 Swiss Position

Biodiversity and forests are fundamental for sustainable development and therefore need to be integrated in a new goal framework. A truly sustainable development framework must not only acknowledge the role of biodiversity and forests for sustainable development, it must also provide the enabling conditions for the conservation and sustainable use of biodiversity and forests, as well as a more equitable sharing of benefits derived from the utilization of genetic resources, and for the reduction of drivers of biodiversity loss, deforestation and degradation. The following reflections shall provide the basis for integrating biodiversity and forests into sustainable development goals:

- The global Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets shall be taken into account.

- **Biodiversity and forest targets and indicators must be connected with**, or integrated into goals that relate to tangible constituents or determinants of human well-being, in particular goals on sustainable agriculture, food security and nutrition, pollinators, genetic resources, and on sustainable growth. In addition, there are also clear links to possible goals on governance, energy, water or cities.

- The following elements, based on the Aichi Targets, should be **mainstreamed and integrated** into the different sustainable development goals:
  - Underlying causes of biodiversity and forest loss are addressed, such as by the integration of biodiversity values into policy processes, by the removal of harmful incentives and the promotion of positive incentives
  - Direct pressures on biodiversity should be reduced (such as habitat loss, over-exploitation of species, pollution, invasive species) and sustainable use should be promoted (including forestry, agriculture and fisheries)
  - Ecosystems, species and genetic diversity should be safeguarded, including through well managed and interconnected protected areas and the prevention of extinction of threatened species.
  - Enhance the benefits from biodiversity and ecosystem services, by restoring ecosystems and enhancing their resilience and by the fair and equitable sharing of rights and benefits arising from the use of genetic resources.
  - Improve access and rights to biodiversity and to forest resources in order to reduce poverty and empower rural areas
  - Implement biodiversity conventions and strategies better through broad participation, preserving and promoting traditional knowledge and encouraging the exchange of knowledge.

- **A dedicated goal on biodiversity (including forests)** could be developed in order to address the life supporting role of biodiversity and ecosystems including forests in the earth’s water, nutrients and material cycles and contribution to resilience to their various pressures like climate-change and as a factor in societal and economic development. A stand-alone goal should not be developed at the cost of coherent mainstreaming among the overall target system.

- Targets should include reducing or halting deforestation and degradation, restoration of deforested and degraded land, sustaining the multiple roles and functions of all types of forests, forest lands and woodlands contributing to poverty alleviation and economic development of rural population, as well as **strengthening the role of**
sustainable forest management and governance in order to conserve and enhance carbon stock, address resilience to disaster risks and impacts, as well as to mitigate the adverse impact of climate change.