



# TOWARDS POST-2020 EXPERTISE ON #13

## LANDSCAPE APPROACHES IN A POST-2020 GLOBAL BIODIVERSITY FRAMEWORK — A TOOL TO STRENGTHEN BIODIVERSITY

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**Landscape approaches have been recognised by the parties to the Convention on Biological Diversity (CBD) as a tool to improve the sustainable use of biodiversity for a long time. Integrating them into the paradigm of the discussions at COP15 will create a window of opportunity to improve the quality of sustainable use mechanisms and raise the level of ambitions of the post-2020 global biodiversity framework.**

Landscapes influence and form human behaviour. At the same time, they are often the result of human activities.

The interrelation between conservation, sustainable use of biodiversity, and landscapes implies that a strong, landscape-oriented stance needs to be taken to reach the 2050 vision and harmony between nature and people.

Biodiversity will greatly benefit from the inclusion of the holistic concept and pragmatic tools of landscape approaches in the post-2020 global biodiversity framework.

Many successful examples of initiatives and projects have shown that this concept, when thoroughly implemented, can be a valuable tool to put sustainable use of biodiversity into practice.

**BUILDING ON EXISTING  
EXPERIENCE AND  
CONCRETE EXAMPLES  
CAN HELP IN THE  
DEVELOPMENT OF THE  
POST-2020 BIODIVERSITY  
FRAMEWORK, LAYING  
DOWN MORE CONCRETE  
LANDSCAPE-RELATED  
TARGETS AND THE  
RESPECTIVE INDICATORS.**



Cassava farming in Sierra Leone.

## THE RELATIONSHIP BETWEEN LANDSCAPES AND BIODIVERSITY

From undisturbed or less disturbed to populated and cultivated, the conditions of the landscape–human relationship are very diverse. Human-made resource use, spatial planning, and infrastructure activities are some of the most impactful activities, and landscapes are the combined result of all these interacting functions. Human activities also impact what landscapes look like. Their perceptions can be via visual experience, photos, films, and maps, and the ensuing assessments are often subjective, depending on the underlying values of the individual, a group of experts, or even parts of society, e.g. national or regional communities such as Indigenous Peoples and Local Communities (IPLCs). Nevertheless, attempts have been made to use objective criteria and matrices, such as the documentation of landscape services <sup>1</sup>.

Diverse ecosystems and biotopes quite often result in diverse landscapes. The variety of ways humans use land, e.g. how agricultural or forestry activities are undertaken and the resulting landscapes, are clear examples of this interdependence. Another variable lies in the difference and interface between urban and rural settlements, which shows how infrastructures (community development, transport, and housing) impact landscapes and biological diversity as they interfere with ecosystem connectivity. Various landscapes are not only visible to people; they can be operationalised as an ecosystem service <sup>2</sup>. These landscape approaches and analyses can inform decision-making on plans, programmes, and projects with a positive or negative impact on landscape and biological diversity, and support biodiversity-positive policies.

Despite the term “landscape” being explicitly mentioned only in Aichi Target 11 (“...areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ..., and integrated into the wider landscapes and seascapes”), landscapes and their interrelation with biodiversity are indirectly addressed by Aichi Targets 5, 7, and 14. Sustainable Development Goal (SDG) 15 (Life on Land) is in particular relevant for approaches to landscapes and biodiversity. SDG 9 (Industry, Innovation and Infrastructure) as well as SDG 11 (Sustainable Cities and Communities) can also have strong landscape approaches, components, and impacts on biodiversity. As landscapes are strongly tied with biodiversity and human activities, it is important to operationalise policies that make this interlinkage more visible and understandable to stakeholders.

Relevant tools (such as comparative maps) are needed for that purpose. COP15 can be the appropriate moment to make sure that the post-2020 global biodiversity framework includes the possibility to improve biodiversity by political and technical decisions on the landscape level in different sectors such as infrastructure, rural and urban development, or tourism.

## THE “LANDSCAPE APPROACH” AND OTHER SIMILAR CONCEPTS

Several different but interrelated concepts are used within the CBD context, including “ecosystem approach”, “landscape approach” <sup>3</sup>, “area-based conservation measures”, and “spatial planning”. Though all of them are dealing with different areas of expertise and policies, there is also a large overlap and a strong link to be explored and enhanced. For most of them, there is no easy and clear definition. Although they somewhat lack conceptual clarity, they can provide a good basis for an ambitious implementation of the post-2020 targets once they are fixed. This will require a thorough assessment and analysis of the different concepts to provide more clarity to the scientific community and decision-makers. This holds especially true for the terms “landscape-” and “ecosystem approach”. “Spatial planning” is usually understood as a technical tool for the implementation of landscape approaches, while “area-based conservation measures” are referred to as possible outcomes when applying a landscape approach to the sustainable use of biodiversity.

For the purpose of this brief, the landscape approach is understood as an approach integrating ecological patterns and processes with socioeconomic and institutional values in defined geographical territories. It is based on specific ecosystem management techniques and is generally linked to national policies. The terms landscape and landscape approach can be applied at any scale depending on the nature of the problem being addressed but are generally used at spatial scales of several thousand square kilometres.

## LANDSCAPE APPROACHES IN THE CBD CONTEXT

Already in 2010 at COP10, the parties recognised the importance of landscape-level initiatives and asked for more ambition. They established a direct link to the landscape approach in the Strategic Plan for Biodiversity for 2011–2020 while highlighting the presence of important information gaps on the topic. Strategic Goal B of the plan, to “Reduce the direct pressures on biodiversity and promote sustainable use”, and Target 7 are perhaps the most relevant in this regard. The latter states: “By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.” As sustainability can only be achieved in an appropriate spatial context, the landscape level is arguably the most important scale on which to improve the sustainable management of agricultural and forest ecosystems in their socio-economical contexts.

As a first step, the CBD, in cooperation with other international organisations including the FAO, IUCN, and the UNCCD, developed a compilation of guidance for the implementation of landscape approaches <sup>4</sup>. Besides a summary of references, it also contains a number of principles for three important aspects for landscapes focused on commodity production, governance issues at landscape level, and landscape approaches for conservation and development. Some

<sup>1</sup> UNEP, Report 2014, Measuring ecosystem services: Guidance on developing ecosystem service indicators.

<sup>2</sup> Millennium ecosystem assessment, 2005, <https://cutt.ly/lgrSNZN>

<sup>3</sup> In the CBD context, usually including seascapes.

<sup>4</sup> <https://cutt.ly/WfOV47b>





Aerial view of field, Germany.

best practise examples, like initiatives by the FAO or the Satoyama Initiative <sup>5</sup> are given as references for implementation.

The International Partnership for the Satoyama Initiative (IPSI) is well recognised by the CBD and referred to in Decisions of each of its COPs since 2010. This partnership is made up of several hundred organisations at different levels—from local to global—and explores ways and means for using and managing natural resources sustainably while fulfilling the 2050 Vision of “living in harmony with nature”. Landscape approaches are a key instrument of the IPSI and are promoted in trainings, workshops, and concrete projects worldwide. Though much has already been achieved, we are still far from reaching targets and sound implementation of sustainable management in our production systems. Building on existing experience and concrete examples can help in the development of the post-2020 biodiversity framework, laying down more concrete landscape-related targets and respective indicators.

### LANDSCAPE PERSPECTIVES IN THE POST-2020 BIODIVERSITY FRAMEWORK

Steps have been taken to promote a landscape perspective in the post-2020 GBF in a more concrete way. The framework’s zero draft <sup>6</sup> was particularly explicit in its 2030 Action Target 1:

“Retain and restore freshwater, marine and terrestrial ecosystems, increasing by at least [50%] the land and sea area under comprehensive spatial planning addressing land/sea use change, achieving by 2030 a net increase in area, connectivity and integrity and retaining existing intact areas and wilderness.”

Other targets referred to the integration of biodiversity values in national and local planning and called for mainstreaming biodiversity in all economic sectors. This perspective was reaffirmed at the thematic workshops dedicated to landscape approaches organised by the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS and IPSI Secretariat, in cooperation with the CBD). Participants called for a focus on area-based, scalable biodiversity conservation targets, with provisions for periodic assessments of progress towards the agreed targets <sup>7</sup>.

All landscapes should be attended to, including those beyond the definitions of protected areas and “other effective area-based conservation measures” (OECMs). Due consideration is to be given to the dynamic mosaics of managed ecosystems as potential sites for area-based conservation and their relevance for “nature’s contribution to people”. It was also concluded that the framework should strengthen the National Biodiversity Strategies and Action Plans (NBSAPs) process, taking advantage of the utility and applicability of landscape approaches to NBSAPs for mainstreaming biodiversity into sustainable development.

Other issues covered by the recommendations are the effective and equitable management and

interconnectivity of protected and conserved areas; the identification, mapping, and prioritisation of areas important for essential ecosystem functions and services across large landscapes; and the use of landscape approaches to locate potential or critical areas for conservation and use. Some of these recommendations are reflected in the Draft Monitoring Framework for the 2030 action targets <sup>8</sup>. Those cover inter alia spatial planning, connectivity of protected areas, and coverage and representativeness of protected areas and OECMs.

Landscape approaches are getting high recognition as an important tool to implement the sustainable use of biodiversity in the context of the CBD. New and improved technology and tools (e.g. remote sensing or geographic information systems) are widely available and facilitate decision-making processes with the inclusion of stakeholders. However, challenges like competing or bargaining interests (e.g. production vs. conservation), spatial opportunities (e.g. connectivity), or the potential impacts of human land use (e.g. fragmentation) remain. Reflecting this in the monitoring framework and even more importantly in the NBSAPs, which are key to the implementation of the post-2020 global biodiversity framework, will be a strong sign for a landscape-positive way forward.

### FINDING GUIDANCE FOR IMPLEMENTATION

The “Voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction” (CBD Technical Series No. 93 (2019) <sup>9</sup> focus on a specific topic, namely climate change adaptation and disaster risk reduction, but also deal with ecosystem-based adaptation and landscape approaches. Those are seen as an interdisciplinary, cross-sectoral, and holistic approach to help overcome barriers by connecting all stakeholders involved. For implementation, the voluntary guidelines foresee a stepwise approach and provide toolkits for every step, e.g. to perform a landscape and stakeholder analysis. Ecosystem-based adaptation and disaster risk reduction are both seen as landscape approaches where decisions (policies, planning, and implementation) need to be based on spatial information. To implement such an approach will bring benefits for society and economy, such as the provision of natural resources, water management, and recreation, and for biodiversity by providing habitats for species. Among the necessary actions, aligning land cover and spatial use maps across different sectors (such as agriculture, forestry, urban planning, nature conservation, and fisheries), strengthening institutional coordination, and multi-stakeholder approaches for spatial planning are of particular significance.

In 2018, IUCN published “Biodiversity guidelines for forest landscape restoration opportunities assessments” <sup>10</sup>. This document provides context, resources and perspectives in view of the global interaction between biodiversity conservation and forest landscape restoration. Guiding principles include stakeholder involvement, the consideration

<sup>5</sup> The Satoyama Initiative was started by Ministry of the Environment of Japan (MOEJ) and the United Nations University Institute for the Advanced Study of Sustainability. Its International Partnership for the Satoyama Initiative (IPSI) was founded in 2010. <https://cutt.ly/NfONEmO>

<sup>6</sup> <https://cutt.ly/wfOBkSv>

<sup>7</sup> <https://cutt.ly/VfOBEzz>

<sup>8</sup> <https://cutt.ly/SfOBPtl>

<sup>9</sup> <https://cutt.ly/nfOBFPz>

<sup>10</sup> <https://cutt.ly/cfYJCjWn>



Mount Fuji taken from  
Chureito Pagoda, Japan.

<sup>11</sup> Council Directive  
92/43/EEC of 21 May 1992  
on the conservation of natural  
habitats and of wild fauna  
and flora;  
<https://cutt.ly/wgmAvjq>

<sup>12</sup> <https://cutt.ly/KfYCGVc>

<sup>13</sup> <https://cutt.ly/vfYCFKN>

<sup>14</sup> For instance, regions affected  
by desertification, salinisation,  
or erosion.

Cover page photo:  
Aerial view of Erechim,  
Rio Grande do Sul, Brasil

of technical possibilities, and the tailoring of strategies to local conditions. Landscape approaches are prominently mentioned across the publication. Landscapes rather than individual sites should be put in focus when establishing a mosaic of interdependent land uses, inter alia agriculture, protected areas, agroforestry systems, or ecological corridors. Like the “voluntary guidelines”, the document also gives detailed guidance on data sources and implementation methodology. CBD stakeholders will find in these and other guidance documents the tools to inform discussions, especially as regards to developing a monitoring framework and setting measurable indicators.

### FROM DESIGN TO IMPLEMENTATION, A VARIETY OF BEST CASES

Landscape approaches and land use management are applied in many different regions all over the world. In Europe they are successfully used to facilitate decision-making processes and implementation of various policies, including rural development, nature conservation, and the protection of habitats. Within the Natura 2000 program <sup>11</sup>, areas with sensitive habitats or protected species are identified by each member state of the European Union, balancing agriculture, forestry, or recreation with the overall aim to protect biodiversity.

The Global Environment Facility (GEF) Amazon Sustainable Landscapes Program <sup>12</sup> combines projects in six different countries (Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Suriname). It supports activities related to ecosystem connectivity and integrity, socio-ecological resilience, and sustainable economic development via an integrated landscape management system, which includes transboundary freshwater ecosystems, production, and protected areas. The resulting landscape mosaic consisting of protected areas, IPLCs territories, and sustainably managed surrounding landscapes maintains the required connectivity levels for key local ecosystems and species, and favours regional conservation and sustainable use of biodiversity efforts. Based on work started in 2011 for the identification of regions with key ecological functions and regions under “ecological protection redlining”, the Eco-Environmental Redlining in China <sup>13</sup> implements landscape approaches at large scale. “Key-eco function regions” serve as a living space for humans they provide services and products, while aiming for an ecologically intact environment.

“Redlining” regions then cover a range of protected areas or ecologically fragile areas <sup>14</sup>. “Ecological conservation redlining” areas are identified by an extensive mapping exercise. Their implementation is based on coordination between various governance levels—from governmental institutions and services to local communities—to establish a strict management regime. This holistic approach, including identification, mapping, and management of sensitive areas plays a key role in the protection of biodiversity in China.

### OPTION ON THE PATH TO COP15

Including landscape approaches in strategic documents and—equally important—concrete implementation measures and decisions is instrumental to reach any conservation and sustainable use of biological diversity objective, as well as the CBD’s short- and long-term goals. Action Target 1 in the zero draft of the post-2020 biodiversity framework very concretely addressed the interrelation of landscape and spatial planning. Triggering transformative change in biodiversity and the tools to meet its related goals depends on the mainstreaming of biodiversity-positive projects in various areas of human economic activities. The fact that landscape approaches have been successfully implemented in various contexts or territories and in many projects or initiatives proves that they are an experience-verified tool, advocating for their mentions in a revised Action Target 1 and ensuing documents.

Sectoral guidance is available (e.g. on forest landscapes, climate change adaptation, etc.) but the official CBD reference (SBSTTA document 15/3) is already ten years old. There is increasing evidence in respective strategies of the strength of landscape approaches in making biodiversity targets more visible and tangible. Therefore, there is a need for an updated, overarching source of information and common tools to enable parties to implement landscape approaches in a harmonised way and to improve mainstreaming and sustainable use of biodiversity. This could be materialised by a concrete reference to implementation of landscape approaches in the post-2020 biodiversity strategy as well as by calling parties to include landscape approaches in their NBSAPs, addressing also cities, subnational authorities, and non-governmental actors such as spatial planning organisations, businesses, NGOs, and others.

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