Expert Thematic Workshop on Landscape Approaches for the Post-2020 Global Biodiversity Framework

Background and Discussion Themes

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1. Background

At CBD COP 10 in 2010, the Strategic Plan for Biodiversity 2011-2020 was adopted as a plan to guide biodiversity conservation efforts in the UN Decade on Biodiversity. A major part of the Strategic Plan was the 20 Aichi Biodiversity Targets, which cover aspects of biodiversity policy in the CBD context. Ongoing assessments throughout the Decade have found that, while the Targets are ambitious and aspirational, most of them are not expected to be achieved by 2020.

As we approach the end of the Strategic Plan's timeframe, the CBD community is working to assess progress that was made during the decade, and to produce a new Post-2020 Global Biodiversity Framework. It is clear that efforts must be stepped up and made more effective if biodiversity conservation is going to help save our natural environment. With this in mind, organizations in the CBD community have been organizing a series of regional and thematic consultations and related events, to explore the factors and drivers that affect biodiversity, and how different perspectives can contribute to the effectiveness of the Post-2020 Global Biodiversity Framework.

During the Decade on Biodiversity, a large number of policies, mechanisms, and initiatives were developed to contribute to the implementation of the Strategic Plan. Many of these have increasingly used the concept of "landscape approaches", a term which has various understandings but generally refers to consideration of a geographical area as a holistic unit with of all of its natural habitats, land-uses, human settlements, and stakeholders. It is also an attempt to reconcile the tension between species and habitat on the one hand, and environmental goods and services on the other. This is different from other approaches, which often focus on selected species, economic activities, or protected areas. One example of an effort toward landscape approaches is the Satoyama Initiative, a global effort to realize "societies in harmony with nature", focusing on the concept of "socio-ecological production landscapes and seascapes" with dynamic mosaics of habitats and land-uses.

The Expert Thematic Workshop on Landscape Approaches for the Post-2020 Global Biodiversity Framework is intended to contribute to the process leading up to CBD COP 15 in China in late 2020. The workshop will be centered on discussions among the attending policymakers, experts, and stakeholders to explore ideas for how landscape approaches can contribute to biodiversity conservation while providing for sustainable livelihoods and the CBD's vision of "living in harmony with nature" by 2050, as well as related processes like the UN SDGs. Outcomes from the workshop will be provided to the CBD community for consideration in developing the framework.

The following pages provide background information for discussion on each of a number of themes relevant to landscape approaches, including key questions and draft recommendations to be included in CBD policy documents. Participants are encouraged to use these as a basis for discussion, to change or reformulate them as they see fit, and to share their own insight and experiences to generate effective ways of incorporating landscape approaches.

The working groups of the Workshop are divided into three thematic streams: (1) State and trends of landscape and seascape management; (2) Enabling environment; and (3) Implementation. Each stream has five sub-themes to be discussed.

2. Thematic Streams

Stream 1, Sub-theme 1: Coastal management

Background:

While there is no worldwide definition, *seascapes* are generally referred as "large, multiple-use marine areas, defined scientifically and strategically, in which government authorities, private organizations, and other stakeholders cooperate to conserve the diversity and abundance of marine life and to promote human well-being (Conservation International, 2011)". Localized interpretations tend to focus on the coastal seas, including "an area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/or human factors (Natural England, 2010)", or in Japan referred as "Satoumi" of "high productivity and biodiversity in the coastal sea with human inter-action (Yanagi, 2008). Central to these seascape concepts is that they emphasize on (i) the human interactions with sea for their livelihoods, (ii) the linkages between land and coastal sea areas (or "ridge to reef" approach), and (iii) the need to involve diverse stakeholders for its management.

The management of coastal seascapes (thereafter referred as "coastal management") thereby require a multi-disciplinary and cross-sectoral approach to gear stakeholders and decision makers toward multipleuse, systems-oriented modes of management, based on precautionary approaches and ecosystem management principles. CBD Decision II/10 encourages the wide adoption and implementation of integrated marine and coastal area management (IMCAM), which promotes a participatory process for decision-making to prevent, control, or mitigate adverse impacts from human activities in the marine and coastal environment, and to contribute to the restoration of degraded coastal areas. Coastal management using community-based approaches also provide a culturally-appropriate method for implementing provisions of the CBD related to coastal areas, in particular to the CBD programme of work on marine and coastal biological diversity (decision VII/5).

Relevant Aichi Biodiversity Targets: 5, 6, 7, 10, 11, 14, 18 / Relevant SDGs: 14, 13

Key questions:

- What are the issues and actions pertinent to coastal management of biodiversity which are not adequately addressed in the Aichi Biodiversity Targets and Sustainable Development Goals and should be incorporated in the post 2020 global biodiversity framework?
- How could coastal management approaches help to expand and enhance the conservation of coastal biodiversity beyond the 10 percent of marine protected areas set by ABT 11?
- Are there best practices of coastal management in a localized context with solutions to global challenges, in particular examples which promote cross-sectoral cooperation and stakeholder engagement?
- What are the capacity needs to implement management of coastal biodiversity?

- Parties should be encouraged to develop plans and policies for coastal management that
 enables effective involvement of stakeholders from different sectors in conservation of coastal
 biodiversity, thereby facilitating the mainstreaming of biodiversity in sectors in the coastal zone.
- The Global Biodiversity Framework should align itself with other frameworks and policy processes, to foster multidisciplinary and international collaboration, in order to enhance implementation of coastal management and coastal biodiversity conservation.

Stream 1, Sub-theme 2: Degradation and restoration

Background:

Degradation of land due to human activity is among the main causes of biodiversity loss, and therefore Aichi Biodiversity Target 15 aims that "By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification". This also shows the strong link to climate change.

In general, the United Nations has focused mainly on drylands, centering on the United Nations Convention to Combat Desertification (UNCCD) and impacts on poverty, famine and conflict. Efforts to reduce and reverse land degradation tend to include terms like "improvement of systems for monitoring and verification", "Cooperation between organizations with different interests in land", and "promotion of incentives to encourage sustainable land management and the elimination of 'false incentives' that promote land degradation".

Landscape approaches have potential to address degradation through integrated land management. Incorporation of various sustainable production activities in landscape planning have in some cases been shown to help alleviate the effects of degradation and improve the resilience of ecosystems and wellbeing.

Relevant Aichi Biodiversity Targets: 15, 11, 5 / Relevant SDGs: 15, 6, 12, 13, 2, 1

Key questions:

- What incentives or activities lead to greater land degradation, and how can they be fixed or improved, including through landscape approaches?
- Individual measures such as afforestation and habitat restoration are often used to prevent land degradation, but could this be more effective through an integrated landscape approach, and how?
- How should the CBD work with the United Nations Convention to Combat Desertification, as stipulated in Aichi Target 15?

- A landscape approach should be emphasized in the post-2020 global biodiversity framework as a tool for aligning biodiversity goals with SDGs and other related processes.
- Landscape approaches to reducing and reversing land degradation, should be recognized for their ability to improve resilience and produce multiple socio-economic and cultural benefits while conserving biodiversity.

Stream 1, Sub-theme 3: Disaster Risk Reduction

Background:

In the wake of serious disasters such as earthquakes, droughts, and floods over the world, disaster risk reduction and climate change adaptation are one of the most urgent issues for the international community. ABT 15 seeks to enhance ecosystem resilience and the contribution of biodiversity to carbon stocks through conservation and restoration. In this regard, ecosystem-based approaches, which use biodiversity and the ecosystem functions and services to manage the risks, are expected to play a critical role. As mangroves buffer storm surges, for instance, restoration of mangroves contributes to storm risk reduction. In decision 14/5, the COP adopted the voluntary guidelines for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk management.

Landscape approaches share the same rationale as ecosystem-based approaches that both are based on biodiversity and ecosystem functions and services for human beings. Accordingly, landscape approaches have the potential to reduce disaster risk and climate-related impacts to a large extent. As a good example, an IPSI case study in Sri Lanka focuses on the traditional irrigation network of man-made lakes and ponds which enhance climate change adaptation in local communities.

In 2017, CARE Nederland and Wetlands International published a noteworthy paper titled "A Landscape Approach for Disaster Risk Reduction in 7 steps". When adopting landscape approaches to reduce disaster risks, it breaks down the process into 7 steps: 1) Initial assessment; 2) Stakeholder analysis and power mapping; 3) Multi-stakeholder processes; 4) In-depth problem & solution analysis; 5) Action planning; 6) Implementation; and 7) Adaptive management.

Relevant Aichi Biodiversity Target: 15 / Relevant SDGs: 13, 14, 15

Key questions:

- Given the advantage of landscape approaches in terms of disaster risk reduction and climate change adaptation, what needs to be incorporated into the post-2020 framework to galvanize concrete actions?
- How can we ensure coherence and simplicity in the post-2020 framework when there are other relevant initiatives such as the Paris Agreement on Climate Change and the Sendai Framework for Disaster Risk Reduction?
- How can we monitor and review the disaster risk reduction and climate change adaptation brought by landscape approaches?

- The potential to reduce disaster risk and maintain and increase climate resilience should be recognized as one of the main benefits of landscape approaches.
- Incorporation of landscape approaches into the post-2020 framework will function as a link to other international initiatives such as the Paris Agreement on Climate Change and the Sendai Framework for Disaster Risk Reduction.

Stream 1, Sub-theme 4: Cultural landscapes – nature and culture and the links between biological and cultural diversity

Background:

From its beginning, the CBD has included recognition of the role of indigenous peoples and local communities (IPLCs) in biodiversity conservation, most prominently based on Article 8(j) of the Convention, which calls on Parties to respect, preserve, and maintain knowledge, innovations, and practices of IPLCs "embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity", with IPLCs often being recognized in CBD documents as the keepers of biodiversity. With this background, the CBD Secretariat and UNESCO formed a Joint Programme on Links between Biological and Cultural Diversity and has organized Summits and other events. The most recent Nature-Culture Summit held during COP 14 in Egypt was conceived as a preliminary step in the creation of a Nature-Culture Alliance, made up of interested participants in CBD processes, to further promote nature-culture links post-2020.

The Aichi Biodiversity Targets captured these ideas most strongly in Target 18, with the aim that, "By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels." Landscape approaches have been prominent in related processes, as IPLCs often occupy areas that could be considered "cultural landscapes", "biocultural landscapes", and the like.

Relevant Aichi Biodiversity Target: 18 / Relevant SDGs: 16? (this issue is generally underrepresented)

Key questions:

- How do nature-culture links enhance our understanding of landscape approaches, and viceversa?
- How should these nature-culture links be incorporated in the post-2020 global biodiversity framework? As a standalone target, or as a cross-cutting issue, or otherwise?
- How can a post-2020 "Nature-Culture Alliance" contribute to policy, including CBD processes?

- In light of the demonstrated fact that IPLCs are the keepers of biodiversity through maintenance
 of their biocultural landscapes, any post-2020 biodiversity target on IPLC issues should explicitly
 reference nature-culture links at the landscape level.
- The COP and its Decisions should encourage the recognition and further investigation of the concept of biocultural diversity as a useful tool for achieving biodiversity, and should include the "Nature-Culture Alliance" explicitly in its programmes of work.
- The landscape approach should be encouraged as the key tool for CBD Parties to implement conservation policies in terrestrial and coastal landscapes inhabited by IPLCs, due to the strong links between nature and culture typically found in such areas.

Stream 1, Sub-theme 5: Area-based conservation Background:

Area-based conservation (ABC) is the primary conservation strategy to facilitate *in-situ* biodiversity conservation (Article 8). Protected areas (PAs), generally defined as geographically defined areas designated or regulated and managed to achieve specific conservation objectives, have been the cornerstones of ABC: they stock important natural, cultural and social capital and yield flows of economically valuable goods and services while buffering unpredictable climate change impacts. With the recognition that many areas without legal designation as PAs can render effective conservation, the phrase "other effective area-based conservation measures" (OECMs) was introduced in the Aichi Biodiversity Targets. Although OECMs can contribute to multiple Targets, Target 11 specifically states that "By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape."

The current progress in meeting Target 11 requires further efforts to integrate PAs and OECMs into the wider landscapes and seascapes and mainstream them across sectors. The recent IPBES Global Assessment Report shows that the continual PA expansion may exceed numerical targets of terrestrial and marine environments by 2020. Yet, it reveals moderate progress in terms of conservation of areas of particular importance, ecological representativeness, effective and equitable management, and connectivity and integration of PAs and OECMs in the wider landscapes and seascapes. The extent and distribution of OECMs is poorly documented partly due to only recent establishment of definition and guidelines for identifying and reporting OECMs. No global indicator is available to measure to what extent areas of importance for ecosystem services are protected or how effective such protection is. Furthermore, there is no agreed methodology for tracking progress towards equitable management.

Recognizing the work related to socio-ecological production landscapes and seascapes (SEPLS) under the Satoyama Initiative, Decision 14/8 welcomes the voluntary guidance on integration and mainstreaming of PAs and OECMs into the wider land- and seascapes as well as on governance and equity of them, and encourages Parties and other stakeholders to apply the guidance. In this connection, SEPLS has been mapped under the GEF-Satoyama Project by using the Satoyama Index³ together with the data sets to identify potential areas of importance for conservation and sustainable use of SEPLS (Natori 2019; Kadoya and Washitani 2011).⁴

Relevant Aichi Biodiversity Target: 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 15, 18 / Relevant SDGs: 13, 14, 15

¹ https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services

² Decision 14/8 defines an OECM as "A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity with associated ecosystem functions and services and where applicable, cultural, spiritual, socioeconomic, and other locally relevant values."

³ Satoyama Index is an ecological index of ecosystem or habitat diversity in agricultural landscapes.

⁴ https://aag.secure-abstracts.com/AAG%20Annual%20Meeting%202019/abstracts-gallery/22550; https://www.sciencedirect.com/science/article/pii/S0167880910002963

Key questions:

- What are the specific objectives to be achieved in integrating and mainstreaming PAs and OECMs into landscapes, seascapes and sectors and enhancing governance and equity of them?
 What good practices can be applied or scaled up through landscape approaches for ABC?
- How should landscape approaches be incorporated in the post-2020 global biodiversity framework in light of their application for ABC? How can the ABC based on landscape approaches advance the achievement of relevant sustainable development goals?
- What methodologies and tools can Parties and other stakeholders use to assess and report the
 progress in ABC based on landscape approaches? What are the specific challenges and
 opportunities in regard to data availability, collection and analysis to measure the progress in
 ABC?

- The post-2020 global biodiversity framework should include scalable targets or measurements to assess the progress in ABC, taking advantage of the recent methodological development and research on landscape approaches that highlight multidimensional integrity of human-nature interactions on a landscape/seascape scale.
- Parties and other stakeholders should be encouraged to attend to landscapes and seascapes
 that are beyond the definitions of PAs and OECMs but consist of dynamic mosaics of managed
 ecosystems as potential sites for ABC given their contributions to various ecosystem services for
 human well-being.
- To ensure ecological representativeness, effective and equitable management, and connectivity
 of protected and conserved areas, the post-2020 global biodiversity framework should further
 promote identification, mapping and prioritization of areas important for essential ecosystem
 functions and services, by introducing landscape approaches, for instance, with the use of the
 Satoyama Index to locate potential or critical areas for conservation.

Stream 2, Sub-theme 1: Sustainable agriculture

Background:

Sustainable agriculture ⁵ encompasses and enhances the following dimensions of (i) **agricultural biodiversity** ⁶, (ii) **agrodiversity** ⁷ (diverse production systems), and (iii) **agro-ecosystems**, whereby ecological, social and economic aspects will strive to be achieved. However, unsustainable practices of agriculture are detrimental to the well-being of people and Nature and cause biodiversity loss: IPBES Global Assessment in 2019 reported that agriculture related "changes in land and sea use" and "direct exploitation of organisms" as the top two drivers of change responsible for global biodiversity loss.

CBD COP Decision XIII/3 recognized that "agriculture, forestry, fisheries and aquaculture, and tourism, among other sectors, depend heavily on biodiversity and its components, as well as on the ecosystem functions and services that they underpin, that these sectors also impact on biodiversity". The Decision then urged Parties and invites other Governments 'to strengthen their efforts to mainstream conservation and sustainable use of biodiversity within and across various sectors, including agriculture, forestry, fisheries and aquaculture, and tourism at all levels and scales". International efforts, including the FAO Biodiversity Mainstreaming Platform, are also welcomed "to build bridges between sectors, identify synergies, align goals and develop integrated cross-sectoral approaches to mainstreaming biodiversity in the agriculture, forestry and fisheries sectors". Landscape approaches which promote the collective management of biodiversity by various stakeholders to a multifunctional landscape are examples of such integrated cross-sectoral approaches to facilitate biodiversity mainstreaming.

Relevant Aichi Biodiversity Targets (ABTs): 3, 4, 5, 6, 7, 13, 14, 18 / Relevant SDGs: 2, 12, 14, 15

Key questions:

- Apart from those in ABTs and SDGs, what other issues and actions on sustainable agriculture for biodiversity should be addressed in the post-2020 global biodiversity framework?
- How are landscape approaches helpful in mainstreaming biodiversity into agricultural sectors and promoting synergies with other related conventions?
- What are best practices or policies which promote sustainable agriculture for biodiversity conservation?

- Landscape approaches should be recognized in the Global Biodiversity Framework for their ability to enable to sustainable agriculture that enhances agricultural biodiversity, agrodiversity and agro-ecosystems that provide for human wellbeing and resilient livelihoods.
- Parties should be encouraged to implement management of productive landscapes with multifunctional uses to facilitate biodiversity mainstreaming in agricultural and other sectors.

⁵ "Agriculture" here takes the broad FAO definition which includes forestry, livestock and fisheries sector.

⁶ Agricultural biodiversity is a broad term that includes all components of biological diversity of relevance to food and agriculture, and all components of biological diversity that constitute the agricultural ecosystems, also named agro-ecosystems (CBD COP decision V/5, appendix).

⁷ Agrodiversity refers to the many and dynamic ways in which farmers use the natural diversity of the environment for livelihoods, including not only choice of crops but also management of land, water and biota as a whole.

Stream 2, Sub-theme 2: Scientific assessment

Background:

The Strategic Goal E of the current Strategic Plan of the CBD seeks to ehance implementation through participatory planning, knowledge management and capacity building. One the Targets towards achieving this goals is Aichi Target 19 that states that "By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied".

The CBD has constantly striven to engage with multiple partners to increase awareness about new and emerging topics related to the objectives of the Convention, and further also highlight the state and trends of biodiversity across different regions, drivers of changes and implications to human wellbeing across major stakeholder groups, with a clear emphasis always on indigenous and local communities.

Over the last decade and a half, some major global assessments on the state of the world's biodiversity have been done. The Millennium Ecosystem Assessment is a considered a seminal body of work, that communicated clearly the links between ecosystems, biodiversity and ecosystem services and clearly noted the consequences of different pathways we might seek to follow, on biodiversity and human wellbeing. The UNEP Global Environment Outlook Reports and the CBD's Global Biodiversity Outlooks have been regularly updating information. More recently, the IPBES, set up as a Science-Policy interface brought out a series of assessments including 4 Regional and 1 Global Assessment of the state of biodiversity and ecosystems and thematic assessments on impacts on specific areas such as Pollinators, Land Degradation and Restoration, and methodologies to build scenarios. These, combined with reports such as those of IPCC, the Planetary Health Commission and others have contributed to a more nuanced understanding on the connections between status of biodiversity and various drivers in different parts of the world.

One of the key messages from the global assessment of IPBES is the need to support more integrated landscape and seascape approaches to enhance biodiversity conservation. This finding finds echo in socio-ecological research findings and in the policy implementation space such as the GIAHS of FAO.

Relevant Aichi Biodiversity Target: 19 / Relevant SDGs: ? (this issue is cross-cutting)

Key questions:

- How can the principles of landscape approaches be incorporated into post-2020 biodiversity framework in a manner that allows monitoring and assessment (e.g., as a vision / strategic goal / specific targets)?
- How can experiences from landscape approaches be integrated into mainstream scientific assessments?

- Scientific assessment should be included in the global biodiversity framework to understand the
 relevance of integrated landscape approaches towards achieving conservation and sustainable
 use of biodiversity and several of the SDGs.
- Parties should request the Executive Secretary of the CBD to collaborate with scientific and practitioner networks such as IPSI, PECS and others to assess landscape approaches.

Stream 2, Sub-theme 3: Links to SDGs and related policy frameworks Background:

Among the SDGs, biodiversity is most directly covered in Goals 14 (life below water) and 15 (life on land), although at least 7 Goals and 29 Targets are somehow related. The mainstreaming of biodiversity into development policies, plans, and programmes can be expected to strengthen efforts toward both biodiversity goals and the SDGs. For example, synergies have been recognized between biodiversity and SDGs in terms of sustainable forest and grassland management, ecosystem-based disaster risk reduction, and climate change adaptation, and can also contribute to other objectives.

An IPSI analysis of case studies demonstrating landscape approaches showed that such approaches are most closely related to SDGs 12 (sustainable consumption and production), 15 (life on land), 2 (zero hunger), 8 (decent work and economic growth) and 1 (no poverty).

In addition to the SDGs, conventions and frameworks related to biodiversity and landscape approaches include UNFCCC, UNCCD, World Heritage, Ramsar, CITES, and CMS (Convention of Migratory Species). Among these, FAO's Globally Important Agricultural Heritage Sites (GIAHS) is an example of a programme that actively incorporates the landscape approach, and UNESCO's Man and Biosphere (MAB) programme is related although it does not specifically mention the landscape approach.

While the movement towards the mainstreaming of biodiversity has led to a strong need for cooperation with other conventions and frameworks, cooperation has been mostly limited to the implementation of some joint projects and information sharing.

Relevant Aichi Biodiversity Targets: 15, 20 / Relevant SDGs: 14, 15, 17 (and all SDGs in general)

Key questions:

- What are policy areas outside of biodiversity conservation where landscape approaches have potential to have the most impact, and how can people working in those areas be convinced of the effectiveness of landscape approaches?
- How can existing frameworks incorporating a landscape approach such as GIAHS, MAB, or the Satoyama Initiative be expanded or replicated in other policy frameworks?

- Elements of the post-2020 global biodiversity framework incorporating landscape approaches should emphasize their links to the SDGs and other policy frameworks due to their contributions to aligning the goals of different frameworks.
- The CBD community should be encouraged to carry out further research into landscape approaches in terms of their links to SDGs and other policy frameworks.

Stream 2, Sub-theme 4: Sustainable economic systems for landscapes and seascapes Background:

Originating from the international recognition of the importance of sound incentive measures in achieving biodiversity conservation and sustainable use (Article 11), the COP extended its consideration to not only economic but also social, cultural and ethical valuations of biodiversity, taking into account both market and non-market values (Decisions III/18 and IV/10A). To help Parties to develop policies and formulate financial mechanism guidelines, the COP adopted a programme of work on incentive measures (Decision V/15). Noting incentive measures as essential elements of conservation and sustainable use particularly at the local-community level, the COP agreed to integrate actions on incentive measures in thematic work programmes for synergy (Decision V/15). Moreover, the COP agreed to enhance information sharing on good practices, lessons and challenges through assessments and capacity building (Decision IX/6).

The programme of work has been implemented specifically under Aichi Biodiversity Targets 2, 3 and 20, but the latest IPBES Global Assessment Report finds insufficient achievement of these targets. Poor or moderate progress has been made to Target 2 in integrating biodiversity values into development, poverty reduction, planning accounting and reporting. Albeit some successful international initiatives, the Report shows no significant increase in investment in environmental impact assessments while pointing to limited availability of tools and assessments to measure the progress. Likewise, the absence of global indicators to assess the progress in eliminating harmful incentives hinders the achievement of Target 3. At the same time, the challenges in scaling up and implementing exemplary initiatives and local practices have led to poor progress in applying positive incentives for conservation. Financial resources to implement the Strategic Plan for Biodiversity 2011-2020 have been increased, but are still insufficient as spelled out in Target 20. In particular, the developing countries with high biodiversity but many threatened species are often least adequately funded.

Many Parties expect biodiversity mainstreaming as one of the major focuses of the post-2020 global biodiversity framework to achieve the transformational change, for which incentive measures will play a crucial role along with regulatory measures (CBD/POST2020/PREP/1/1). Taking landscape approaches, the Satoyama Initiative has shed light on the values of cultural and historical landscapes and seascapes to foster appreciation of traditions and customs and provide incentives for their conservation. The case studies of the Satoyama Initiative demonstrate effective incentive measures, including promotion of locally produced goods and diversification of local income sources through eco-certification systems to protect cultural and ecological landscapes, which contribute to securing livelihoods and revitalizing local businesses in the long term. IPSI has been nurturing a global platform to share knowledge and experiences and promote lessons learnt in broader policy processes at the local, national, regional and global levels. This will allow for the methodological development of incentive measures particularly for scale-up and implementation.

Relevant Aichi Biodiversity Target: 2, 3, 4, 19, 20 / Relevant SDGs: 1, 8, 9, 12

Key questions:

What are the critical considerations to be made in enhancing and implementing incentive
measures through landscape approaches? What are the challenges and opportunities in taking
landscape approaches to scale up or replicate good practices of incentive measures in different
circumstances?

- How should landscape approaches be incorporated in the post-2020 global biodiversity
 framework in light of their use in designing, implementing, assessing and reporting incentive
 measures? How can the incentive measures based on landscape approaches advance the
 achievement of relevant sustainable development goals (e.g., SDGs 8 (decent work and
 economic growth), and 12 (responsible production and consumption))?
- How can landscape approaches contribute to the methodological development to measure the
 progress of incentive measures? What are the specific challenges and opportunities in regard to
 data availability, collection and analysis to develop and implement incentive measures and
 assess and report their progress?

- The post-2020 biodiversity framework should place more emphasis on effective implementation
 of incentive measures with close attention to social, cultural, historical and ethical values of
 biological diversity so as to develop and enhance sustainable economic systems for landscapes
 and seascapes.
- Parties and other stakeholders should be encouraged to consider landscape approaches as a
 useful tool to design, implement, assess and report incentive measures in the way that
 incentives and possible outcomes of the measures are relevant across different stakeholders,
 sectors and levels.
- Methodologies should be developed and advanced to measure the progress of incentive measures by taking advantage of landscape approaches and the case studies augmented under the Satoyama Initiative that offer local experiences and lessons and suggest ways to scale up good practices.

Stream 2, Sub-theme 5: Gender considerations at the landscape level Background:

The CBD recognizes "the vital role that women play in the conservation and sustainable use of biological diversity and affirms the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation" in its preamble. Recently, the resolution on the United Nations Decade on Ecosystem Restoration (2021–2030) adopted by the United Nations General Assembly reiterated the recognition of women's contribution and stressed the need to ensure their effective participation in ecosystem conservation and restoration. The only direct reference to women in the Aichi Targets is in Target 14: "By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable." The SDGs address the issue more directly, with a whole Goal on Gender Equality.

As part of the post-2020 process, a workshop was held on "Towards a gender-responsive post-2020 global biodiversity framework" in New York in April 2019. Key components of such a framework identified in the workshop were "Recognizing and enhancing women's agency, participation and leadership", "Promoting and protecting women's rights and access to resources", and "Enhancing and ensuring equitable benefits and human well-being". Specific recommendations for each of these were developed, and can be found in the workshop report.

Relevant Aichi Biodiversity Target: 14 / Relevant SDGs: 5

Key questions:

- How does a landscape approach relate to recognition of gender issues, promotion of women's rights and access to resources, and enhancement of equitable benefits?
- What actions, interventions, and approaches are effective for ensuring gender equality at the landscape level?

- Policy should specify that women and women's organizations are equitably represented in landscape strategy development, project planning, and implementation of conservation projects using an integrated landscape approach.
- Landscape-level resource planning should be encouraged, recognizing that women are often most directly affected by natural resources in productive landscapes, and appropriately incorporating women's rights and access to resources.
- Mechanisms should be created to recognize women's productive activities which often take
 the form of informal or home industry for their role in enhancing landscape diversity and
 sustainable livelihoods, and ensure that women receive the benefits equitably.

Stream 3, Sub-theme 1: Resource mobilization and capacity building Background:

Aichi Biodiversity Target 20 is considered an overall, cross-cutting target because it is that "the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels". In the context of landscape approaches, the theme of resource mobilization can turn into the issue of securing livelihoods for production landscapes and seascapes, conserving its biodiversity and ecosystems. Sustainable livelihoods depend on healthy ecosystems; and vice versa. Many case studies are available with good examples of strengthening both economic and ecological sustainability such as development of high-value-added farm and livestock products in rural areas.

In addition to resource mobilization on the community level, it is worthwhile to highlight financial support for role models of landscape approaches which have a spillover effect. In the IPSI context, Conservation International has implemented a project titled "Mainstreaming Biodiversity Conservation and Sustainable Management in Priority Socio-ecological Production Landscapes and Seascapes" with GEF support, and UNDP has built on its experience to incorporate a landscape perspective in many of its Small Grants Programme countries. This may indicate a wider trend of "landscape" being considered an important keyword for perceived effectiveness in the design and implementation of resource-mobilization schemes.

Capacity building for landscape approaches includes strengthening capacity for traditional knowledge and management practices, ensuring environmental sustainability, income generation, and others. These capacities can be strengthened through traditional institutional arrangements, indigenous and local communities' participation, and stakeholder training and awareness raising activities. The landscape can be an important factor in considering the scale and scope of capacity-building projects.

Relevant Aichi Biodiversity Targets (ABTs): 18, 19, 20 / Relevant SDGs: 8, 14, 15, 17

Key questions:

- Local and indigenous knowledge is prone to be held at the community level. How can we share the knowledge with other practitioners who face similar issues, while considering issues like free prior and informed consent?
- Resource mobilization and capacity building are reflected in ABTs 18, 19, and 20. From the perspective of landscape approaches, should we keep the existing targets or modify them in the post-2020 framework? If we need to modify them, how can we do it?
- How can we monitor and review the progress in resource mobilization and capacity building for landscape approaches?

- Partnership which enables experts and practitioners to exchange and disseminate local, on-the-ground experiences should be encouraged in the post-2020 framework.
- Flagship projects focusing on landscape approaches with financial support should be pursued to enhance recognition of these approaches and enhance their effectiveness.

Stream 3, Sub-theme 2: "CEPA": Communications, Education, and Public Awareness

According to the CBD website, "Among the many barriers to achieving the objectives of the Convention on Biological Diversity, and of the other biodiversity-related conventions, the lack of public awareness on the importance of biodiversity ranks as one of the most serious. Without an awareness of the importance of biodiversity to human well-being, citizens and stakeholders are not likely to take the steps needed to mainstream biodiversity considerations into their daily lives and practices. The lack of public awareness also contributes to the relatively low political priority given to biodiversity issues." With this in mind, Aichi Target 1 is specifically about awareness: "By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably."

The release of the IPBES Global Assessment Report on Biodiversity and Ecosystem Services in May 2019 brought a great deal of new attention to the problem of biodiversity loss. Still, other regional and thematic consultations held under the post-2020 global biodiversity framework process have identified communication as one of the key areas needing further attention in the framework.

Relevant Aichi Biodiversity Target: 1 / Relevant SDGs: 17

Key questions:

- What are the challenges in communicating what a landscape approach to biodiversity is, and how can they be addressed?
- What is needed in terms of education, in order to make a landscape approach more effective.

- A concrete communications strategy should be part of the Post-2020 Global Biodiversity
 Framework, and it should explicitly promote a landscape approach as an effective tool for
 biodiversity conservation.
- CEPA policies at the national level should employ a landscape approach, for example by
 identifying stakeholders and participants for training and education workshops at the landscape
 scale, in order to ensure equity and efficient resource use.
- Under a post-2020 Target on public awareness (following Aichi Target 1), sub-targets and indicators should include landscape approaches, to promote broader awareness of landscape approaches as a tool for achievement of multiple biodiversity targets, SDGs, and others.

Stream 3, Sub-theme 3: Monitoring/Reporting/Evaluation Background:

There is clearly a large demand among policymakers for accurate information on the state of biodiversity, as seen from continued requests for evaluation in the form of the Global Biodiversity Outlook (GBO) and the series of assessments produced by IPBES. The Convention on Biological Diversity calls for the identification of important regions and species, and different mechanisms have been developed in the form of Key Biodiversity Areas, Biodiversity Hotspots, and others.

Monitoring is an important piece of implementation of the Convention, and Parties are expected to include it in their National Biodiversity Strategies and Action Plans (NBSAPs) and national reports. Monitoring measures and items vary from country to country, but it is common to place emphasis on important protected areas and specific species such as those in danger of extinction. Monitoring is particularly important in evaluating the effectiveness of protected areas, and this need will increase with expansion into so-called "other effective area-based conservation measures" (OECMs).

Still, monitoring, reporting, and evaluation can be complicated when trying to use an ecosystem-based or landscape approach, as opposed to counting of species numbers, for example. Further, reporting systems under the CBD are targeted at national Parties, while it has been pointed out that specific species and protected areas are often managed at a local level, potentially leading to inaccurate reporting. For these reasons, monitoring, reporting, and evaluation methods may need to be reviewed if more integrated approaches, such as landscape approaches, continue to gain more attention in the post-2020 global biodiversity framework.

Relevant Aichi Biodiversity Target: 17 / Relevant SDGs: 15

Key questions:

- How do monitoring practices at the local level contribute to the adoption of integrated landscape management at larger scales?
- Is the national Party-based reporting framework used under the CBD effective, and how could it be improved?
- What does it mean to use a landscape approach for monitoring, reporting, and evaluation at the local level?

- The post-2020 global biodiversity framework should encourage monitoring and evaluation with an ecosystem approach at the landscape scale, as it is a more effective scale in many cases than regional or national levels.
- The post-2020 global biodiversity framework should provide for further investigation of how
 reporting systems can be improved to include reporting on biodiversity and ecosystem health in
 landscapes, moving beyond traditional reporting based on species numbers, hectares of
 protected areas, etc.

Stream 3, Sub-theme 4: NBSAPs and national-level policy Background:

National Biodiversity Strategies and Action Plans (NBSAPs) serve as the main implementation tool of the CBD to integrate biodiversity considerations into national decision-making and mainstream biodiversity across all sectors. Besides the obligation for planning and reporting in consideration of specific contexts (Articles 6, 24 and 10 (a)), Parties have been guided by COP decisions to enhance coordination, mobilize adequate resources, take an integrated approach and coherent actions, and promote synergies. In particular, Decision IX/8 urges Parties to take into account the ecosystem approach. Furthermore, Decision X/2 guides Parties to integrate biodiversity targets into national development and poverty reduction policies, national accounting, economic sectors and spatial planning processes in reviewing and updating NBSAPs in line with the Strategic Plan for Biodiversity 2011-2020 and particularly Aichi Biodiversity Target 2 for effective implementation.

To facilitate the development of NBSAPs, Aichi Biodiversity Target 17 specifies that "By 2015, each Party has developed, adopted as a policy instrument, and has commenced implementing, an effective, participatory and updated national biodiversity strategy and action plan." To date, 97% of the Parties (i.e., 190 of 196) have developed one or more NBSAPs, and 168 Parties have submitted NBSAPs since the adoption of the Aichi Biodiversity Targets but the compliance of these NBSAPs with the Targets is still a challenge. Moreover, in their views on the post-2020 global biodiversity framework, many Parties expressed the need to strengthen the NBSAP process and emphasize implementation of NBSAPs, recognizing the continued relevance of NBSAPs for CBD implementation (CBD/POST2020/PREP/1/1). The ecosystem approach considers humans as an integrated component of ecosystems and offers a strategy for the integrated management of land, water and living resources. Nevertheless, the current status of NBSAPs calls for more integrated, coherent and effective approaches to the NBSAP process.

With the understanding that landscape approaches attend multidimensional and multifunctional complexity of human-nature interactions in a more holistic manner, UNU-IAS and the University of Tokyo Institute for Future Initiatives (UT-IFI) have been conducting a research project with the support of the CBD Secretariat since 2016 to examine the relevance and applicability of landscape approaches for NBSAPs. The first phase (2016-2018) found that almost all NBSAPs reviewed (132 of 133) fully or partially referred to landscape approaches or similar concepts, while identifying good practices and challenges for incorporation. The second phase (2018-2020) continues to assist Parties to deepen the understanding of the approaches and their contributions to global goals. As part of this project, the manual as a technical guide for policy administrators is being developed through extensive consultation and for wider dissemination at COP15 to help Parties effectively apply landscape approaches for NBSAPs and relevant policies, plans and programmes.

Relevant Aichi Biodiversity Target: 2, 4, 6, 7, 11, 14, 15, 17, 18, 19, 20 / Relevant SDGs: 1, 2, 13, 14, 15, 16, 17

⁸ https://www.cbd.int/nbsap/

⁹ Haveh (2010) argues that although both ecosystems and landscapes are medium-numbered complex ecological systems, the former's complexity is based on the monodimensional material processes of flow of energy/matter and biophysical information whereas the latter's is multidimensional and multifunctional. He stresses that the latter deals with not only material processes and biophysical information but also cognitive and perceptional dimensions and cultural information.

Key questions:

- What are the key considerations to be addressed when incorporating and applying landscape approaches for NBSAPs? What critical actions need to be taken along the policy-making and implementation processes to incorporate landscape approaches into NBSAPs to influence policies, plans and programmes?
- How should landscape approaches be incorporated in the post-2020 global biodiversity framework in light of their application for NBSAPs and other related policies? How can the incorporation and application of landscape approaches in NBSAPs advance the achievement of relevant sustainable development goals?
- What are the capacity-building needs for Parties and other stakeholders to incorporate and apply landscape approaches in the development and implementation of NBSAPs and other relevant policies?
- What methodologies can Parties and other stakeholders use to measure the incorporation and application of landscape approaches in NBSAPs and other related policies?

- The post-2020 biodiversity framework should strengthen the NBSAP process, particularly its implementation, by taking advantage of the utility and applicability of landscape approaches for NBSAPs and other relevant national policies.
- Parties and other stakeholders should be encouraged to take into account the key considerations and critical step-by-step actions, which have been identified in the manual, to incorporate and apply landscape approaches for NBSAPs and other related policies.
- Capacity building opportunities should be provided for Parties and other stakeholders to incorporate and apply landscape approaches so as to effectively develop, update and implement NBSAPs and other related policies.

Stream 3, Sub-theme 5: Mainstreaming biodiversity into other sectors Background:

At COP13 held in Mexico in December 2016, the Conference of Parties adopted decision XIII/3 calling for Parties and other stakeholders to mainstream biodiversity in the four sectors that are directly dependent on biodiversity: agriculture, forests, fisheries and tourism. Furthermore, at COP14 held in Egypt in November 2018, the Conference of the Parties adopted decision XIV/3 calling on Parties and other stakeholders to mainstream biodiversity in the sectors of energy and mining, infrastructure, and manufacturing and processing.

The mainstreaming of biodiversity can be defined as "integrating or including actions related to conservation and sustainable use of biodiversity at every stage of the policy, plan, programme and project cycle, regardless whether international organizations, businesses or governments lead the process (CBD 2018)". The objective of mainstreaming biodiversity is to help reduce the negative impacts that productive sectors, development investments and other human activities exert on biodiversity, by highlighting the contribution of biodiversity to socioeconomic development and human well-being. This requires enhanced collaboration with development sectors and actors.

Landscape approaches which promote the collective management of biodiversity by various stakeholders to a multifunctional landscape is one of such integrated cross-sectoral approaches to facilitate biodiversity mainstreaming. "Ecohealth 10" and "ecological civilization" are some other efforts and approaches to mainstream biodiversity.

Mainstreaming is not limited to agriculture, and may include sectors such as **tourism**, **energy and mining**, **infrastructure**, **manufacturing and processing**, **and health**.

Relevant Aichi Biodiversity Targets (ABTs): 1, 2, 3, 5, 8, 14, 15, 17, 19 / Relevant SDGs: 3,7,8,9, 12, 15

Key questions:

• How are landscape approaches helpful in mainstreaming biodiversity into relevant sectors and promoting synergies with other related conventions?

- How could mainstreaming biodiversity in these relevant sectors achieve transformational change?
- Are there other approaches, best practices or policies which promote mainstreaming of biodiversity into relevant sectors?

- The status of mainstreaming of biodiversity should be emphasized and enhanced in the NBSAPs and National Reports.
- Landscape approaches should be emphasized in implementation regimes to facilitate biodiversity mainstreaming into all relevant sectors to achieve transformative change.

¹⁰ Holistic, transdisciplinary and cross-sectoral approach, that emphasizes the intimate interconnections between ecosystem health, human health and social justice. Ecohealth is inherently founded upon and guided by the principles of the ecosystem approach. (CBD-SBSTTA 2017a: 6)

3. Way Forward

Recommendations based on the themes identified in this document will be collected by the organizers and compiled into a workshop report, which will then be open for comments online. Participants are strongly encouraged to continue to actively take part in developing the report to make sure their perspectives are appropriately included. The final report will then be submitted to the post-2020 process co-chairs, CBD deliberating bodies, and other key people for use as an information document or otherwise as a resource. Outcomes will be disseminated in the CBD community through side events, contributions to policy negotiations, and other means, as well as through communications and social media networks. Workshop participants are encouraged to share outcomes and recommendations throughout their own networks.

This workshop is intended to be part of an ongoing and integrated process towards the Post-2020 Global Biodiversity Framework, and participants are encouraged to engage in subsequent thematic consultations and workshops. Further consultations are planned on area-based conservation, marine and coastal issues, land degradation and restoration, and others may be planned in the future, and the Open-Ended Working Group will also hold at least two more meetings before CBD COP 15.

Because landscape approaches for terrestrial and coastal landscapes have relevance for many different issues, there will be many ongoing possibilities to contribute to the post-2020 process. The organizers hope participants will continue to with the organizers and each other to promote landscape approaches for "living in harmony with nature".