The "Kumamoto Report" on Landscape Approaches for the Post-2020 Global Biodiversity Framework

Prepared by the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)

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This report is an output of the Expert Thematic Workshop on Landscape Approaches for the Post-2020 Global Biodiversity Framework held 3-6 September 2019 in Kumamoto, Japan, which was organized by the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) in cooperation with the Secretariat of the Convention on Biological Diversity (CBD), the Ministry of the Environment, Japan (MOEJ), and the Kumamoto Prefectural Government. The report is produced to be submitted as an input to the development of the post-2020 global biodiversity framework.

The report contains a brief introduction to the Expert Thematic Workshop and key issues related to landscape approaches and their importance to conservation and sustainable use of biodiversity, plus recommendations for the framework developed in discussions at the workshop, including specific wording where possible. It is the sincere hope of the participants that it will be a useful resource for the Conference of the Parties to the Convention (COP) as they develop the framework.

Contents

Introduction:	2
Recommendations for Specific Elements of the Post-2020 Global Biodiversity Framework:	
Area-based conservation	4
Mainstreaming biodiversity into other sectors, sustainable agriculture, and sustainable economic system	s .5
Scientific assessment, monitoring, evaluation, and reporting	6
Land degradation and restoration, and disaster risk reduction	7
Coastal biodiversity conservation	8
A gender-responsive framework	8
Nature-culture linkages	9
Global, national, and sub-national policy	. 10
Resource mobilization, capacity-building, and CEPA	. 11
Annex I: Programme of the Expert Thematic Workshop on Landscape Approaches for the Post-2020 Global	
Biodiversity Framework	
Annex II: List of Participants in the Expert Thematic Workshop on Landscape Approaches for the Post-2020	
Global Biodiversity Framework	. 16

Introduction:

Background and organization:

The Expert Thematic Workshop on Landscape Approaches for the Post-2020 Global Biodiversity Framework was organized in response to CBD COP 14 Decision XIV/34¹, calling for a "Comprehensive and participatory process for the preparation of the post-2020 global biodiversity framework" and encouraging governments and relevant organizations "to provide timely financial contributions and other support to the process for developing the post-2020 global biodiversity framework, including by offering to host global, regional, sectoral, or thematic consultations on this issue". UNU-IAS has been carrying out research and promotional activities on landscape approaches to conservation and sustainable use of biodiversity for human well-being throughout the UN Decade on Biodiversity 2011-2020. UNU-IAS collaborated with MOEJ to establish the Satoyama Initiative, a global effort to realize "societies in harmony with nature" through landscape approaches, which has made continuous contributions to CBD processes including through the International Partnership for the Satoyama Initiative (IPSI).

Considering the increasing attention paid to landscapes and landscape approaches in biodiversity conservation and related circles in recent years, and the CBD's recognition of the Satoyama Initiative in Decisions of each of its COPs since 2010, UNU-IAS offered to hold the Expert Thematic Workshop to explore the potential of landscape approaches to enhance the effectiveness of the post-2020 framework and produce recommendations to feed into its development process. Preparations were carried out in consultation with the CBD Secretariat and the co-chairs of the post-2020 process. Participants were selected for invitation with a view towards broad representation from CBD Parties, various perspectives including gender, youth, indigenous peoples and local communities (IPLCs), the private sector, and a diversity of on-the-ground and policy-related stakeholders at all levels. The workshop was held concurrently with the Eighth Global Conference of the International Partnership for the Satoyama Initiative (IPSI-8), for which UNU-IAS serves as Secretariat, so many of the participants were attending both events and already had experience working with landscape approaches in some form. Seventeen CBD Party governments were represented: Benin; Brazil; Cambodia; China; Colombia; Croatia; Dominican Republic; European Union; Georgia; Ghana; Japan; Kyrgyz Republic; Madagascar; Malawi; Netherlands; Sri Lanka; and Togo. In total, some 140 participants attended.

About landscape approaches:

Although, as mentioned, landscape approaches have gained attention in recent years, there are varying perspectives on what the term means. For the purpose of this workshop, a broad interpretation of the term was used to accommodate a wide diversity of participants from different backgrounds and sectors, rather than prescribing any particular interpretation. A general definition of a landscape approach as understood in workshop materials and discussions could be *any approach based on consideration of a landscape as meaning a geographical area in a holistic sense with all of its wild habitats, land-uses, human settlements, and stakeholders*. This differs from other conservation approaches that often focus on selected species, specific conservation objectives, biodiversity targets, economic activities, or protected areas among others. Similar to the ecosystem approach, which focuses on biophysical processes, a landscape approach more widely incorporates governance and nature's contributions to human well-being, in many cases at a larger geographical scale. Landscape approaches to biodiversity conservation can offer certain advantages over other conservation approaches by way of reconciling trade-offs and managing competing interests between stakeholders,

¹ All documents for the Workshop are available at: https://satoyama-initiative.org/events/3-6-september-2019-expert-thematic-workshop-on-landscape-approaches-for-the-post-2020-global-biodiversity-framework/

² As endorsed in CBD COP Decision V/6: https://www.cbd.int/decision/cop/default.shtml?id=7148

³ https://iges.or.jp/en/pub/promoting-landscape-approach-asia-pacific

integrating diverse perspectives such as sustainable development and human livelihoods, and bridging gaps with other processes such as those related to climate change or sustainable consumption and production.

The workshop and outcomes:

The programme of the workshop centered around in-depth discussions in smaller groups that were organized into three thematic streams and 15 sub-themes encompassing various elements of landscape approaches. It was organized in such a way that each participant had a chance to rotate through all 15 sub-themes, except for the facilitators and rapporteurs who only rotated when they were not running a session. This intensive procedure was designed to give all participants an opportunity to provide input on each of the sub-themes, a process that one of the Co-Chairs referred to as a "Kumamoto Stream Movement". From the discussions, a number of general principles, features, and characteristics for landscape approaches and why they should be a central element of the Post-2020 Global Biodiversity Framework could be identified.

Participants found that landscape approaches are effective and should be emphasized because they can:

- Bring together all stakeholders in the landscape, making biodiversity conservation more effective by
 avoiding or minimizing conflicts and trade-offs, as in a "ridge to reef" landscape approach linking inland
 and coastal landscapes.
- Place high value on human well-being at their center along with biodiversity conservation and are therefore more attractive to stakeholders outside of typical conservation circles.
- Embody a profound sense of local context through a "connection to place" felt by the resident
 community members, and therefore inspire people on the ground to work towards biodiversity
 conservation in their community's self-interest.
- Integrate **multiple values** in the landscape natural, cultural, spiritual, historical, heritage-related, and others thereby presenting biodiversity conservation as part of a comprehensive package of benefits to humans that is considered valuable and worthy of conservation by local communities.
- Contribute to more accurate data gathering, helping to provide **better information to guide policy** decisions through scientific assessment, monitoring, evaluation, and reporting mechanisms.
- **Bridge gaps** between biodiversity conservation obligations and other international, national, and subnational policymaking conventions and processes.
- Be **easier to communicate** to those who are less familiar with technical concepts related to biodiversity conservation, helpful in educating the general public and inspiring younger generations.
- Contribute to a rights-based approach, helping to recognize the rights of women, IPLCs, and disadvantaged members of society, by incorporating all stakeholders at the landscape level.
- Encourage **mainstreaming of biodiversity** into different sectors, particularly related to sustainable agriculture, production, and consumption.
- Address many of the direct drivers of change identified in the recent global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Direct drivers include changes in land and sea use and direct exploitation of organisms.
- Also, more effectively than other kinds of approaches, address the indirect drivers of change described
 in the IPBES report. Indirect drivers may be societal values and behaviors, and evolving human

- population dynamics and trends, and are specifically mentioned as difficult to address, but landscape approaches are identified as one potential solution.⁴
- Address the three objectives of the Convention on Biological Diversity –conservation of biodiversity; sustainable use of its components; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources – in a more integrated way.
- Generate synergies towards multiple SDGs, including those related to the conservation and sustainable
 use of nature, poverty, hunger, water, responsible consumption and production, climate action, and
 partnerships.

The specific recommendations for the Post-2020 Global Biodiversity Framework found in the next section embody these principles and are based on the results of the discussions held in the workshop, conforming loosely to the thematic streams and sub-themes listed above.

Recommendations for Specific Elements of the Post-2020 Global Biodiversity Framework:

This section contains specific recommendations for how landscape approaches can contribute to some of the elements of a post-2020 global biodiversity framework that have been discussed in consultations to date. The sub-sections below do not conform exactly to the sub-themes of the Expert Thematic Workshop, with some having been combined or reworded, although efforts have been made to include the major elements. Where possible, potential specific wording is provided.

Area-based conservation

Since a "landscape" is by definition a geographically defined area, area-based conservation is one of the elements where a landscape approach may be most relevant and effective. Building on existing work most closely related to Aichi Target 11, as well as "other effective area-based conservation measures" (OECMs), including a proposed thematic consultation on area-based conservation measures, and their own experiences with protected areas of various types, the participants made the following recommendations:

- The post-2020 global biodiversity framework should focus on area-based, scalable biodiversity
 conservation targets, with provision for periodic assessments of progress towards the agreed targets.
- Parties and other stakeholders should be encouraged to attend to all landscapes including those that
 are beyond the definitions of protected areas and OECMs but consist of dynamic mosaics of managed
 ecosystems as potential sites for area-based conservation given their relevance for "nature's
 contribution to people".
- To ensure ecological representativeness, effective and equitable management, and interconnectivity 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

⁴ According to the IPBES report, paragraph 30: "Sustainability transformations call for cross-sectoral thinking and approaches. Sectoral policies and measures can be effective in particular contexts, but often fail to account for indirect, distant and cumulative impacts, which can have adverse effects, including the exacerbation of inequalities (well established). Cross-sectoral approaches, including landscape approaches, integrated watershed and coastal zone management, marine spatial planning, bioregional scale planning for energy, and new urban planning paradigms offer opportunities to reconcile multiple interests, values and forms of resource use, provided that these cross-sectoral approaches recognize trade-offs and uneven power relations between stakeholders (established but incomplete)." [emphasis by the authors]

services across large landscapes, by introducing landscape approaches to locate potential or critical areas for conservation and use.

 Mechanisms for defining and recognizing OECMs should be designed to specifically include productive landscapes that demonstrate integrated landscape-scale resource and land-use management approaches.⁵

Mainstreaming biodiversity into other sectors, sustainable agriculture, and sustainable economic systems

The Global Assessment Report on Biodiversity and Ecosystem Services (2019) produced by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) identified that for terrestrial and freshwater ecosystems, land-use change has had the largest relative negative impact on nature since the 1970s and that in marine ecosystems, sea-use change is also the cause of large and widespread impact on the world's oceans. As one way of helping with this problem, the objective of biodiversity mainstreaming is to help reduce impacts that productive sectors, development investments and other human activities exert on biodiversity. Biodiversity mainstreaming 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)." Many Parties expect mainstreaming to be one of the major focuses of the post-2020 global biodiversity framework to achieve transformational change, for which incentive measures will play a crucial role along with regulatory measures. For these purposes, participants developed the following recommendations:

- The post-2020 biodiversity framework should encompass a "values" approach, based on shared understanding of the value of nature and the landscapes in which we live. To encourage innovative, long-term incentive systems a landscape approach is needed that accounts for social, cultural, historical, ethical, and other multiple values of a landscape.
- Subsidies for large-scale monocultural agriculture should be reduced where they are damaging to biodiversity (particularly when large amounts of some chemicals are used), while fair pricing should be sought for biodiversity-friendly products and services, taking into account the producer-borne costs of maintaining a healthy and sustainable multifunctional landscape with diversified agricultural systems.
- The framework should include an enumeration of biodiversity-friendly landscape-level agricultural
 practices, including small-holder farming, agricultural biodiversity conservation measures, agroecology,
 low-chemical-input agriculture, and others, and explicitly encourage their promotion through incentives,
 indicators, and other means.
- Fair and accurate **valuation of nature's contribution to people** should be explicitly recognized in the framework, taking an integrated landscape approach to all resources and elements (economic, nutritional, natural, cultural, and others) of the landscape, as well as the inherent value of nature.

⁵ This is supported by the May 2019 G7 Environment Ministers' Meeting Communique, paragraph 43: "With respect to the integrity of marine and terrestrial ecosystems, we recognize the utmost importance of ecologically representative and well-connected protected areas, increasing coverage and improving their management as necessary, and of fighting deforestation, ecosystem degradation and desertification. We also recognize that the conservation and sustainable use of biodiversity requires action on the ground. This includes both across landscapes (aiming at sustainable agriculture and at

biodiversity requires action on the ground. This includes both across landscapes (aiming at sustainable agriculture and at sustainable forest, soil and land management, including the reduction of the rate of urban sprawl, the integration of nature into cities, the revitalization of brownfields and the restoration of degraded lands into a natural state, and seascapes (aiming at sustainable fisheries and sustainable ocean management including maritime spatial planning). [continues]"

Research and valuation projects should be encouraged where they are practical and are not used to delay implementation.

- The status of mainstreaming of biodiversity should be reported as an integral part of National Biodiversity Strategies and Action Plans (NBSAPs) and National Reporting, to include all "4 P's" of a landscape approach: People; Productive sectors; Principles (connectivity, inclusion, transparency, etc.); and Policymaking.
- Access and benefit sharing regimes should explicitly apply to communities that live in and sustainably
 manage terrestrial and coastal landscapes as productive, dynamic, and biodiversity-friendly socialecological systems (called "cultural landscapes", "biocultural landscapes", "socio-ecological production
 landscapes and seascapes", and the like).
- The framework should encourage exploration of synergies with **certification schemes** for products and services that are produced sustainably, particularly those considering a landscape perspective for areas that are sustainably managed; this will also encourage private-sector investment.
- The framework should promote agricultural biodiversity as a fundamental tenet of sustainably managed
 agricultural landscapes, drawing on the linkage between agrobiodiversity and nutrition as a bridge to
 SDG 1 on "Zero Hunger".

Scientific assessment, monitoring, evaluation, and reporting

There is clearly a large demand among policymakers for accurate information on the state of biodiversity. The UNEP Global Environment Outlook Reports and the CBD's Global Biodiversity Outlooks have been regularly updating information. More recently IPBES has been producing a series of assessments of the state of biodiversity and ecosystems and thematic assessments on impacts on specific areas of interest, such as pollination and land degradation and restoration. One of the key messages from the IPBES Global Assessment Report is the need to support more integrated landscape and seascape approaches to enhance biodiversity conservation and sustainable use. Participants identified the following recommendations:

- The post-2020 framework should encourage parties to provide adequate resources for scientific
 assessments at the landscape scale and ensure that appropriate information sharing platforms allow for
 the free exchange of knowledge necessary for effective landscape-level implementation. For example, a
 body of experts could be established at the regional level to serve as an information hub on landscapes.
- The framework should explicitly recognize indigenous and local knowledge as valid and important as
 other knowledge systems along with so-called modern scientific knowledge, and encourage further
 investigation, including systemic research, of its inclusion in assessment regimes as appropriate with
 consideration of Free, Prior and Informed Consent (FPIC), and its effectiveness in informing landscapemanagement practices.
- The framework should call for collaboration with scientific and practitioner networks such as
 Consultative Group on International Agricultural Research (CGIAR), IPSI, Programme on Ecosystem
 Change and Society (PECS) and others to assess effective landscape management for biodiversity and
 human well-being, including multi-disciplinary collaboration and inclusion of IPLCs, citizen science and
 local communities.
- The post-2020 global biodiversity framework should encourage monitoring and evaluation of biodiversity and human well-being at the landscape scale, including community-based monitoring, as it is a more effective scale in many cases than regional or national levels.

- Monitoring, evaluation, and reporting mechanisms should be designed for adaptive landscape
 management in addition to reporting on status and progress, and should include independent experts
 where appropriate.
- 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. to include holistic and subjective dimensions.
- Parties should be encouraged to develop biodiversity-friendly land-use planning using the landscape as
 a fundamental unit of area, in recognition of the landscape approach as a proven-effective tool for this
 purpose.
- The framework should stipulate the development of effective and standardized (as appropriate) indicators applicable to landscapes, using existing tools and global indicators where available, covering social, economic, environmental, and cultural dimensions and even issues related to governance. Indicators should be considered in a wider landscape framework, avoiding a focus on single goals or targets, with reference to baseline and historical data, and should be linked to SDGs where possible.

Land degradation and restoration, and disaster risk reduction

Degradation of land due to human activity has been found to be among the main causes of biodiversity loss in the IPBES Global Assessment and other places. Landscape approaches share the same rationale as the ecosystem approach as recognized by the CBD, while landscape approaches may go further in recognizing the inseparability of biodiversity and ecosystem functions and services for human beings, as well as humans' ability to positively influence biodiversity through landscape management practices. Accordingly, landscape approaches have the potential to contribute to land and ecosystem restoration and to reduce disaster risk and climate-related impacts to a large extent. Participants identified the following recommendations:

- A landscape approach should be emphasized in the post-2020 global biodiversity framework as a tool for aligning biodiversity goals with SDGs, other conventions, and related processes on degradation and disaster risk reduction.
- In the post-2020 framework, landscape approaches should be recognized as a way of encouraging a cross-sectoral, interdisciplinary and collaborative governance framework in disaster risk reduction and climate change adaption.
- National, regional and local disaster risk reduction strategies and action plans that are based on landscape approaches should be implemented with involvement of all relevant stakeholders with particular attention to the needs and priority of local communities, including IPLCs and women.
- Landscape approaches should be emphasized in sections of the framework related to reducing and
 reversing land degradation, due to their ability to motivate local community stakeholders to action,
 improve resilience, ensure provision of ecosystem services such as groundwater recharge, and produce
 multiple socio-economic and cultural benefits while conserving biodiversity.
- The framework should leverage landscape approaches as a bridge to the UN Decade on Ecosystem
 Restoration, as an integrated landscape approach naturally brings together biodiversity, ecosystem
 restoration, disaster risk reduction, climate change adaptation, resilience, chemical-use reduction, and
 other related concepts.

Coastal biodiversity conservation

Coastal landscapes are of particular importance for biodiversity conservation because of their importance for both terrestrial and marine biodiversity and their vulnerability to effects of pollution, climate change, over-use, and others. Due to their inherent bringing together of diverse influences and issues – terrestrial/marine, upstream/downstream, etc. – coastal landscapes are an area where integrated approaches can be most needed and most effective. Participants identified the following recommendations:

- Parties should be encouraged to work with independent experts to develop ambitious strategies for
 coastal landscape management that enable effective involvement of stakeholders from different
 sectors, with emphasis on enabling those who work in coastal areas, facilitating the mainstreaming of
 biodiversity in sectors in the coastal zone. For example, incentive plans could be developed to integrate
 the tourism sector and hotel companies in coastal management with a landscape approach.
- A "ridge to reef" landscape approach should be encouraged for coastal management in the framework, in recognition that the coastal ecosystem is affected by upstream management as well as areas connected by ocean currents, for example through excessive use of chemicals.
- The framework should take advantage of potential synergies with other conventions and processes made possible by the cross-cutting issues and challenges facing coastal landscapes, including climate change, pollution, and wetlands issues.

A gender-responsive framework

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, with a number of the participants in this Expert Thematic Workshop attending and reporting on its outcomes and focusing this time specifically on gender issues as they apply to landscape approaches. Land use in productive landscapes is highly gendered, with women responsible for many production and resource use and management activities, and in many parts of the world spending more time in the landscape, so it is particularly important from both a rights and a conservation standpoint to consider gender in landscape approaches. At the same time, gender responsiveness is a potentially powerful means of making landscape approaches more effective due to women's personal investment and participation in sustainable landscape management. Participants identified the following recommendations:

- In recognition that women often have a more holistic approach to resource and land use, the framework should encourage national and sub-national policymakers to specify that women and women's organizations and agencies are equitably represented in landscape strategy development, project planning, implementation, monitoring, and evaluation of conservation projects.
- The framework should specifically state that women are often most directly affected by various factors
 in productive landscapes, and encourage recognition of women's rights, tenure, 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.
- The framework should encourage synergies between women and other often-disadvantaged members
 of society in implementation of landscape approaches; for example, youth are often more receptive to
 gender issues, and women often hold more power and authority in IPLCs and rural communities, and so
 can contribute more to biodiversity conservation and human livelihood.

- As a general precept, the framework should work towards recognizing women as active players and
 agents of change in integrated landscape management, rather than passive beneficiaries of nature's
 contributions to people as has often been the case to date. This should be reflected in genderresponsive budgeting and funding to create an enabling environment.
- Accountability mechanisms in the framework should include specific incentives toward allowing all
 genders to have legitimate land tenure and control over resources in the landscape, as women are
 prohibited from owning land in some places.
- The framework should identify and embed gender-responsive indicators throughout targets, including a landscape approach, and make use of relevant gender-responsive indicators that have been agreed under the SDGs framework.

Nature-culture linkages

The need for integration of cultural, spiritual, heritage, and other elements of the landscape into biodiversity conservation efforts – to help people see the values of the biodiversity they rely on not as an abstract scientific value but as an invaluable part of their own life – received a great deal of attention in nearly all of the thematic discussions at the Expert Thematic Workshop. This shows how these nature-culture linkages are a cross-cutting issue that can increase the effectiveness of all other aspects of the conservation agenda. Many of these discussions highlighted the importance of "connection to place", meaning that it is exactly people's deep sense of connection to their own landscapes and seascapes that inspires them to take action. For this reason, it is important that the framework should explicitly feature the link between humans' cultures and ways of life, and the surrounding nature and biodiversity that makes them possible as a central premise. Moreover, a landscape approach encourages flexibility to deal with new challenges in a changing landscape, and therefore is effective at leveraging cultural traditions to help solve problems including climate change, economic changes, and others. Participants identified the following recommendations:

- The framework should encourage the recognition and further investigation of the concept of **biocultural diversity** in the form of "biocultural landscapes" as a useful tool for achieving biodiversity goals, and should include the "Nature-Culture Alliance" explicitly in its programmes of work.
- In light of the demonstrated fact that many IPLCs are keepers of biodiversity through maintenance of landscapes that function as multifunctional social-ecological systems, any post-2020 biodiversity targets, indicators, etc. regarding IPLC issues should explicitly reference nature-culture links at the landscape level.
- The framework should explicitly encourage land rights and tenure for IPLCs that sustainably manage landscapes as social-ecological systems, including capacity-building and support mechanisms for communities to maintain these rights.
- Landscape approaches should be encouraged as a 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 and connectivity across the landscape typically found in such areas.
- The framework's indicators should include an **indicator or indicators to encompass cultural landscapes**, for example based on designation of landscapes including under UNESCO's Man and Biosphere Programme and Cultural Landscapes under the World Heritage Convention, FAO's Globally Important Agricultural Heritage Systems (GIAHS) Programme, IUCN's landscape categorization system, and others, including areas not covered by these mechanisms as appropriate.

- Communications, Education, and Public Awareness (CEPA) materials developed along with the post-2020 framework should emphasize nature-culture linkages and the positive effects humans can have on nature and biodiversity.
- The framework should consider and take advantage of the "Biocultural Community Protocols" concept as recognized under the Nagoya Protocol including developing them, and integrate concepts of landscape approaches and cultural importance of the landscape for IPLCs in these protocols.

Global, national, and sub-national policy

Proposals for the framework envisage substantial progress towards the 2050 global vision of living in harmony with nature and contributions to SDGs. Taking into account that landscapes are part of the global socioecological system, the framework should encourage actions towards the vision in landscapes. One of the greatest strengths of landscape approaches is that they can help to bridge biodiversity conservation with other priorities including sustainable development, climate change adaptation, and others as they interact in the landscape. For this reason, the mainstreaming of biodiversity with a landscape approach into development policies, plans, and programmes can be expected to strengthen efforts toward both biodiversity goals and the SDGs. While movements towards the mainstreaming of biodiversity have led to a strong need for cooperation with other conventions and frameworks, workshop participants found that cooperation has been mostly limited to the implementation of some joint projects and information sharing. Participants agreed that better alignment is needed in policy processes across different scales and levels from sub-national policy to national policy including NBSAPs, to global processes like the SDGs.

In addition to thematic discussion on landscape approaches and NBSAPs, a side event was held during the Expert Thematic Workshop on "Application of Landscape Approaches for National Biodiversity Strategies and Action Plans (NBSAPs)". This was related to a research project by United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) and the University of Tokyo Institute for Future Initiatives (UT-IFI) in cooperation with the CBD Secretariat on the status and trends of incorporation and application of landscape approaches for NBSAP development and implementation, and linkages between landscape approaches and the global goals, including Aichi Biodiversity Targets. As part of this project, a manual on application of landscape approaches for NBSAPs is being developed to assist policy administrators and practitioners in incorporating and implementing landscape approaches to develop, update and implement NBSAPs in specific national contexts.

Participants identified the following recommendations:

- The framework should seek synergies realized through landscape approaches towards multiple SDGs, including SDGs 14 and 15 on conservation and sustainable use of biodiversity, SDG 6 on water, SDG 2 on hunger, SDG 12 on responsible consumption and production, SDG 13 on climate, SDG 17 on partnerships, and SDG 1 on zero poverty.
- The framework should enhance its relationship with the SDG process by addressing the links between biodiversity and other SDGs that are currently under-recognized in landscapes, including SDG 9 on industry, innovation, and infrastructure, SDG 16 on peace, justice, and strong institutions, SDG 7 on energy, SDG 4 on education, and SDG 5 on gender equality. This will help the framework contribute to the SDG pledge to "leave no one behind" in a holistic manner.
- The framework should use common interests such as climate change, disaster risk reduction, and land
 restoration that the CBD shares through a landscape approach to build synergies with other conventions
 and policy processes.

- Relevant stakeholders should be encouraged to carry out further research into global policy aspects of landscape approaches to biodiversity conservation in terms of their links to SDGs and other policy frameworks.
- The framework should strengthen the NBSAP process, taking advantage of the utility and applicability of landscape approaches for NBSAPs and other relevant national policies, by strengthening coordination mechanisms to bring together all the sectors to mainstream biodiversity into sustainable development in a landscape approach.
- Capacity building opportunities should be provided for Parties and other stakeholders, including NGOs
 and groups working with practitioners on the ground, to incorporate and apply landscape approaches to
 effectively develop, update and implement NBSAPs and other related policies, including the manual for
 inclusion of landscape approaches to be produced by UNU-IAS and UT-IFI in cooperation with the CBD
 Secretariat.
- The framework should encourage parties to strengthen public-private partnership as appropriate, as
 well as cross-level and cross-sectoral cooperation in NBSAP implementation, taking into account all
 members of society including women, youth, IPLCs and others in an integrated landscape approach.

Resource mobilization, capacity-building, and CEPA

It has been pointed out in several of the post-2020 framework development events to date that a clear and effective strategy for Communications, Education, and Public Awareness (CEPA) is needed as an integral part of the framework, as worldwide understanding of the importance of biodiversity still lags behind desired levels. A landscape approach can be particularly effective in this area, owing to the fact that people who may not prioritize biodiversity conservation as an abstract concept may be highly motivated to conserve their own landscape including the cultural, economic, and biological values they rely on for their own lives. Likewise, 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. Capacity building for landscape approaches includes strengthening capacity for traditional knowledge and management practices, ensuring environmental sustainability, income generation, and others, and the landscape can be an important factor in considering the scale and scope of capacity-building projects. Participants identified the following recommendations:

- Landscape approaches can be particularly effective for capacity-building of younger generations, as
 many youths can easily understand the importance of their own landscape (as opposed to complex
 scientific concepts they may not have yet learned in higher education), and should therefore be
 emphasized in the framework. For example, ways could be found to encourage students to carry out
 grassroots-level research in their landscapes.
- The framework should encourage incentives for people to engage in CEPA activities not necessarily monetary incentives, but including opportunities for exchange between landscapes inter- or intranationally, knowledge sharing, etc.; these efforts should take advantage of existing partnerships and networks such as IPSI, NBSAP Forum, Indigenous Peoples' and Local Community Conserved Areas and Territories (ICCA) Consortium, and others.
- The framework should make every effort to **communicate technical concepts in easy-to-understand language**, for example "the surrounding landscape" when discussing "buffer zones around no-touch protected areas" and the like.

- The framework should encourage Parties to include landscape-based education in school curricula and consider non-traditional mechanisms including cultural (dance, music, drama, storytelling) and technological (social media, GPS/GIS, drones) means, in recognition of the power of cultural landscape elements to inspire people.
- The framework's CEPA strategy should not only focus on the biodiversity crisis, but include a **positive view of "living in harmony with nature"** in vital and dynamic biocultural landscapes.
- The framework should explicitly aim to avoid "preaching to the converted" and reach audiences beyond
 the typical biodiversity community, considering all stakeholders in an integrated landscape approach;
 this should include consideration of languages, particularly those of deprived communities.
- Resource mobilization mechanisms should emphasize bringing together all stakeholders in a whole-landscape approach to build ownership by those in the landscape and encourage cooperation, especially the private sector. These efforts should receive continuing support from financial mechanisms like the Global Environment Facility (GEF).
- Resource mobilization is not just about money, but also involves other values that contribute to biodiversity-friendly landscapes including knowledge, technology, and human resources, meaning that resource mobilization mechanisms should include these other elements and their fair distribution.
- Capacity-building mechanisms including those aimed at national and international levels should be
 designed to account for local-level context and issues in the landscape on the ground, including issues
 of traditional and local knowledge.

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<u>Annex I: Programme of the Expert Thematic Workshop on Landscape Approaches for the Post-2020 Global Biodiversity Framework</u>

Tuesday	, 3 September 2019
14:00	Opening remarks Prof. Kazuhiko Takeuchi, UNU-IAS Mr. Minoru Kiuchi, State Minister of the Environment, Japan Ms. Caridad Canales, Secretariat of the Convention on Biological Diversity Representative of Kumamoto Prefectural Government Prof. Kazuaki Hoshino, Co-Chair of the Expert Thematic Workshop Prof. Alfred Oteng-Yeboah, Co-Chair of the Expert Thematic Workshop
14:20	Overview of the post-2020 process Mr. Basile van Havre (video), Co-Chair of the Post-2020 Process Mr. William Dunbar, UNU-IAS
14:50	About landscape approaches and their implications for the Post-2020 Global Biodiversity Framework Dr. Suneetha M. Subramanian, Workshop Facilitator
15:10	Structure, format, and organization of work of the workshop, planned outcomes and ongoing process after the workshop Dr. Suneetha M. Subramanian, Workshop Facilitator
15:45	Coffee break
16:00	Perspective presentations:
17:00	Plenary Discussion
17:30	Housekeeping announcements
	Group Photo
18:30	Reception Dinner Hosted by the Kumamoto Prefectural Government

Wednesd	Wednesday, 4 September 2019		
09:00	Thematic Stream 1 State and trends of landscape management		
	 Working Group Themes Coastal management Degradation and restoration Disaster Risk Reduction Cultural landscapes – nature and culture and the links between biological and cultural diversity Area-based conservation (protected areas and OECMs) 		
12:30 –	Lunchtime Session (optional) "Developing a manual for application of the integrated landscape and seascape approach for National Biodiversity Strategies and Action Plans (NBSAPs)"		
	Organized by UNU-IAS, The University of Tokyo Institute for Future Initiatives (UT-IFI) Supported by SCBD		
	Note: Boxed lunch will be provided to all workshop participants, regardless of participation in the lunchtime session.		
14:00 –	Break		
14:30 – 17:30	Expert Thematic Workshop / IPSI-8 Joint Public Forum		
Thursday, 5 September 2019			
09:00	Plenary Session • Comments from workshop facilitator		
9:05-9:20	3-minute reporting back from thematic stream 1		
9:20-9:25	Floor open to comments or questions about the workshop proceedings		
09:30	Thematic Stream 2 Enabling environment		
	Working Group Themes Sustainable agriculture Scientific assessment Links to SDGs and related policy frameworks Sustainable economic systems for landscapes and seascapes Gender		
12:30	Lunch (will be provided to participants)		

13:30	Thematic Stream 3 Implementation
	Working Group Themes Resource mobilization and capacity building Communications and CEPA Monitoring/Reporting/Evaluation NBSAPs and national-level policy Mainstreaming biodiversity into other sectors
16:30 –	Closing Plenary 3-minute report-back from thematic streams 2 and 3
17:00 –	Wrap up of the workshop and reminder of post-workshop process Comments from: Workshop Co-Chairs Dr. Suneetha M. Subramanian, Workshop Facilitator Representative of UNU-IAS Ms. Caridad Canales, Secretariat of the Convention on Biological Diversity
Friday,	6 September 2019
	Excursion organized by the Kumamoto Prefectural Government
08:30	Depart from Hotel Mielparque Kumamoto
	4 groups will visit sites in Aso Region and Minamata. See separate programme for details.
18:00	Return to Hotel Mielparque Kumamoto

Annex: List of Participants in the Expert Thematic Workshop on Landscape Approaches for the Post-2020 Global Biodiversity Framework

- Mr. Imran Ahimbisibwe, Environmental Protection Information Centre (EPIC), Uganda
- Mr. Fataï Aina, Amis de l'Afrique Francophone-Bénin (AMAF), Benin
- Mr. Alejandro Argumedo, Asociacion ANDES, Peru
- Ms. Joy Alsiken, Ifugao State University, Philippines
- Ms. Anara Alymkulova, "Institute for Sustainable Development Strategy" Public Foundation, Kyrgyzstan
- Mr. Carl Amirgulashvili, The Ministry of Environmental Protection and Agriculture of Georgia
- Prof. Tomohiro Araki, Tokai University, Japan
- Mr. Patrick Kofi Avumegah, Small Actions for Enterprise (SAFE) Ghana, Ghana
- Mr. Miguel Beltran, Asociación de Campesinos Vecinos del Parque Natural Nacional Serranía de los Yariguies (ASOCAPAYARI), Colombia
- Dr. Jasmine Black, Countryside and Community Research Institute (CCRI), University of Gloucestershire,
- Dr. Inocencio Buot, University of the Philippines Open University (UPOU), Philippines
- Dr. Leni Camacho, University of the Philippines Los Baňos, College of Forestry and Natural Resources,
 Department of Social Forestry and Forest Governance, Philippines
- Ms. Caridad Canales, The Secretariat of the Convention on Biological Diversity, UN Environment
- Ms. Somaly Chan, National Council for Sustainable Development, Ministry of Environment, Cambodia, Cambodia
- Ms. Su-Hua Chang, Fuli Farmers' Association, Chinese Taipei
- Dr. Jung-Tai Chao, Society for Wildlife and Nature (SWAN) International, Chinese Taipei
- Mrs. Cecilia Chauluka, Ministry of Natural Resources, Energy and Mining, Department of Forestry,
 Malawi
- Ms. Mei-Hui Chen, Forestry Bureau, Council of Agriculture, Executive Yuan, Chinese Taipei
- Dr. Szu-Hung Chen, National Chung Hsing University; Representative of Soil and Water Conservation Bureau (SWCB), Executive Yuan, Chinese Taipei
- Dr. Marie Codamon-Dugyon, Ifugao State University, Philippines
- Ms. Alice Cunningham, Shumei International, Japan
- Ms. Florence Daguitan, Indigenous Peoples' International Centre for Policy Research and Education (TEBTEBBA), Philippines
- Prof. Mohan P. Devkota, Amrit Campus, Institute of Science & Technology, Tribhuvan University, Nepal
- Dr. Devon Dublin, Conservation International Japan, Japan
- Mr. William Dunbar, IPSI Secretariat, the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
- Dr. Aljoša Duplić, Institute for Environment and Nature Conservation, Ministry of Environment and Energetic, Croatia
- Prof. Minoru Fukuzaki, Tokai University, Japan
- Mr. Maheswar Ghimire, Society for Environment Conservation and Agriculture Research and Development (SECARD), Nepal
- Dr. Olivier Hamerlynck, Kenya Wetlands Biodiversity Research Team (KENWEB), Kenya
- Mr. Scott Henderson, Conservation International, USA
- Ms. Isabela Hernández, Ministry of Environment and Natural Resources, Dominican Republic
- Mr. Yasushi Hibi, Conservation International Japan, Japan
- Prof. Kazuaki Hoshino, Kagoshima University, Japan
- Ms. Alice (Jing-Juan) Hsu, Tse-Xin Organic Agriculture Foundation, Chinese Taipei

- Ms. Chung-Yu Hsu, Hualien District Agricultural Research and Extension Station of the Council of Agriculture, Executive Yuan, Chinese Taipei
- Ms. Lan-Siang Huang, Fuli Farmers' Association, Chinese Taipei
- Ms. Ayami Imai, IPSI Secretariat, the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
- Mr. Gerald Jelod Jetony, Sabah Biodiversity Centre, Natural Resources Office, Sabah, Malaysia
- Dr. Malin Jönsson, Fundación Semillas de Vida, A.C. Mexico
- Mr. Ikuo Kabashima, Kumamoto Prefecture, Japan
- Mr. Patrick Kalas, Food and Agriculture Organization of the United Nations (FAO)
- Dr. Satoshi Kameyama, National Institute for Environmental Studies, Japan, Japan
- Ms. Reina Kawai, Shumei International, Japan
- Mr. Hidetada Kawasaki, Kumamoto Prefecture, Japan
- Dr. Uma Khumairoh, "Integrated Organic Farming Systems Research Centre (IORC), Faculty of Agriculture, Brawijaya University, Indonesia
- Mr. Minoru Kiuchi, Ministry of the Environment, Japan (MOEJ), Japan
- Mr. Masamitsu Koba, Aso Region GIAHS Promotion Association, Japan
- Ms. Raffaela Kozar, IPSI Secretariat, the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
- Mr. Issei Kubozono, Kumamoto Prefecture, Japan
- Dr. Anil Kumar, M S Swaminathan Research Foundation (MSSRF), Community Agrobiodiversity Centre, India
- Dr. Punnen Kurian, Tropical Institute of Ecological Sciences (TIES), India
- Dr. Kuang-Chung Lee, National Dong-Hwa University, Chinese Taipei
- Prof. Ling-Ling Lee, Society for Wildlife and Nature (SWAN) International, Chinese Taipei
- Mr. John Leigh, Asociacion Pro Desarrollo Agroindustrial de Camana (APAIC), Peru
- Mr. Yatish Anil Lele, The Energy and Resources Institute (TERI), India
- Mr. Heng-Hsin Liu, International Cooperation and Development Fund (ICDF), Chinese Taipei
- Mr. Chi-Yen Lo, Tse-Xin Organic Agriculture Foundation, Chinese Taipei
- Mr. Gabriele Lo Monaco, Delegation of the EU to Japan, European Union
- Dr. Hwan-Ok Ma, International Tropical Timber Organization (ITTO), Japan
- Dr. Tianxiao Ma, Institute of Zoology, Chinese Academy of Sciences, China
- Mr. Palakiyém Martin Ali Mamouki, Ministry of the Environment, Sustainable Development and Nature Protection, Forest Resources Branch, Protected Areas Division, Togo
- Ms. Hydie Maspinas, Hydrology for the Environment, Life and Policy (HELP) Davao Network, Philippines
- Dr. Augustin Orou Matilo, Ministry of Living Environment and Sustainable Development, Benin
- Mr. Shinya Matsumura, Kumamoto Prefecture, Japan
- Mr. Akimichi Matsunaga, Ministry of the Environment, Japan (MOEJ), Japan
- Ms. Megumi Matsuzaki, Kumamoto Prefecture, Japan
- Ms. Immaculée Mayugi, Groupe d'Intervention pour l'Encadrement et la Réhabilitation Intégrale (GIERI);
 Landcare Network DRC, DR Congo
- Ms. Kristina Mayo, Shumei International, Japan
- Mr. Adrienne McKeehan, Conservation International, USA
- Ms. Luciana Melchert, Ministry of Foreign Affairs, Brazil
- Mr. Jadder Ivan Mendoza Lewis, Asociación Sotzil, Guatemala
- Ms. Sashagay Middleton, Marine Ecosystems Protected Areas (MEPA) Trust, Antigua and Barbuda
- Mr. Jeff Miller, Fuli Farmers' Association, Chinese Taipei
- Mr. Koji Miwa, Institute for Global Environmental Strategies (IGES), Japan
- Dr. Yasuyuki Morimoto, Bioversity International, Italy

- Mr. Hiroaki Murai, Ministry of the Environment, Japan (MOEJ), Japan
- Mr. Edward Mwamuye, Community Based Environmental Conservation (COBEC), Kenya
- Prof. Koji Nakamura, Kanazawa University, Japan
- Mr. Keiichi Nakazawa, Ministry of the Environment, Japan (MOEJ), Japan
- Mr. Toshio Nakano, Kumamoto Prefecture, Japan
- Dr. Maiko Nishi, IPSI Secretariat, the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
- Mr. Kazuaki Nishimura, Kumamoto Prefecture, Japan
- Mr. Hiroaki Nishio, Kumamoto Prefecture, Japan
- Dr. Lungten Norbu, Royal Society for Protection of Nature, Bhutan
- Mr. Jose Manuel Ochoa Quintero, Assessment and Monitoring of Biodiversity Program, Alexander von Humboldt Institute on Biological Research, Colombia
- Dr. Mordecai Ogada, Conservation Solutions Afrika, Kenya
- Mr. Yousuke Oguchi, Ministry of the Environment, Japan (MOEJ), Japan
- Mr. Mitsuyuki Okamoto, Ministry of the Environment, Japan (MOEJ), Japan
- Dr. William Olupot, Nature and Livelihoods, Uganda
- Ms. Bermet Omurova, State Agency of Environment Protection and Forestry of the Kyrgyz Republic
- Mr. Taisuke Ono, Kumamoto Prefecture, Japan
- Prof. Alfred Oteng-Yeboah, Ghana National Biodiversity Committee (NBC), Ghana
- Ms. Eri Otsu, O2farm, Japan
- Mr. Kota Otsu, O2farm, Japan
- Prof. Bishnu Hari Pandit, Kathmandu Forestry College (KAFCOL), Nepal
- Ms. Nathalie Viviane Raharilaza, Ny Tanintsika, Madagascar
- Ms. Mrinalini Rai, CBD Alliance
- Ms. Seheno Ramanantsoa, Ministry of Environment and Sustainable Development, Madagascar
- Mr. Johnnah Ranariniaina, Wildlife Conservation Society Madagascar, Madagascar
- Ms. Melina Sakiyama, Global Youth Biodiversity Network
- Dr. Jeeranuch Sakkhamduang, Institute of Environment Rehabilitation and Conservation (ERECON),
 Southeast Asia Office, Japan
- Mr. Yasukuni Shibata, IPSI Secretariat, the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
- Mr. Jady Smith, Live & Learn Environmental Education, Cambodia
- Dr. Hsiu-Ting Nmn Su, National Yunlin University of Science and Technology (YunTech), Chinese Taipei
- Dr. Suneetha Subramanian, United Nations University; Institute for Global Environmental Strategies (IGES)
- Ms. Yuka Suetsugu, Kumamoto Prefecture, Japan
- Ms. Kanako Sugimoto, Kumamoto Prefecture, Japan
- Mr. Wataru Suzuki, The Secretariat of the Convention on Biological Diversity, UN Environment
- Mr. Yuta Tabara, Kumamoto Prefecture, Japan
- Mr. Go Takahashi, ASEAN Green Justice Network (AGREEN), Myanmar
- Mr. Keisuke Takahashi, Tokyo Sustainability Forum, Institute for Global Environmental Strategies (IGES),
 Japan
- Mr. Yasuo Takahashi, Institute for Global Environmental Strategies (IGES), Japan
- Dr. Hiroaki Takiguchi, IPSI Secretariat, the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
- Mr. Eiji Tanaka, Ministry of the Environment, Japan (MOEJ), Japan
- Mr. Yoshito Tanaka, Kumamoto Prefecture, Japan

- Prof. Kazuhiko Takemoto, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)
- Prof. Kazuhiko Takeuchi, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS); Institute for Global Environmental Strategies (IGES); The University of Tokyo Institute for Future Initiatives
- Mr. Masaya Tatara, Ministry of the Environment, Japan (MOEJ), Japan
- Mr. Anuruddha Tennakoon, Environment Planning & Economics, the Ministry of Mahaweli Development & Environment, Sri Lanka
- Ms. Chan Ya Ting, National Yunlin University of Science and Technology (YunTech), Chinese Taipei
- Prof. Rashed Al Mahmud Titumir, Unnayan Onneshan and University of Dhaka, Bangladesh
- Mr. Toshio Torii, Ministry of the Environment, Japan (MOEJ), Japan
- Mr. Nutdanai Trakansuphakon, Pgakenyaw Association for Sustainable Development (PASD), Thailand
- Ms. Cora van Oosten, Wageningen Centre for Development Innovation, Wageningen University and Research, Global Landscapes Forum, Netherlands
- Ms. Chiachi Wang, Forestry Bureau, Council of Agriculture, Executive Yuan, Chinese Taipei
- Prof. Chin Shou Juju Wang, Chinese Society for Environmental Education (CSEE), Chinese Taipei
- Mr. Masahiko Watanabe, Tokai University, Japan
- Prof. Chen-Fa Wu, National Chung Hsing University; Representative of Soil and Water Conservation Bureau (SWCB), Executive Yuan, Chinese Taipei
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