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REPORT ON ISSUES IN PROGRESS: ECOSYSTEM CONSERVATION AND RESTORATION

Note by the Executive Secretary

I. INTRODUCTION

1. The Conference of the Parties considered the issue of ecosystem restoration at its eleventh meeting, on the basis of intersessional work undertaken in light of recommendation XV/2 of the Subsidiary Body on Scientific, Technical and Technological Advice (see document UNEP/CBD/COP/11/21) and adopted decision XI/16. In paragraph 1 of that decision, the Conference of the Parties "urges Parties and encourages other Governments and relevant organizations to make concerted efforts to achieve Aichi Biodiversity Targets 14 and 15 and targets 4 and 8 of the Global Strategy for Plant Conservation, and to contribute to the achievement of all the other Aichi Biodiversity Targets through ecosystem restoration through a range of activities depending on national circumstances".

2. In decision XI/16, the Conference of the Parties also invited Parties, other Governments and relevant organizations, and requested the Executive Secretary, to undertake certain activities to support countries in implementing ecosystem restoration (paragraphs 2 and 5). The activities include providing capacity-building in the form of workshops, the compilation of information, further development of tools and guidance, clarification of terms and definitions, and pursuing opportunities for collaboration.

3. Also at its eleventh meeting, the Conference of the Parties reviewed progress in implementing the programme of work on protected areas and adopted decision XI/24, providing further guidance to Parties, addressing, in particular, the integration of national action plans for the programme of work into updated national biodiversity strategies and action plans, the recognition of and support for community-based approaches to conservation and sustainable use of biodiversity *in situ*, and the promotion of technical cooperation to achieve Aichi Biodiversity Target 11, thus complementing its earlier decisions IX/18 and X/31.

** Reposted on 29 May with country names added to table 1 and figures added on page 9.

* UNEP/CBD/SBSTTA/18/1.

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4. Paragraph 10 of decision XI/24 requested the Executive Secretary to continue supporting implementation of national action plans for the programme of work and progress towards achieving Aichi Biodiversity Target 11 and other related targets at the national, subregional and regional levels, through activities such as the organization of subregional workshops on common priority actions identified in national action plans for the programme of work, the organization of online course rooms, and making available tools and technical guidance on those areas where progress is lacking, such as mainstreaming protected areas and defining area-based conservation measures.

5. As further explained in section II, the activities have been pursued in an integrated manner that complements progress towards the achievement of other relevant Aichi Biodiversity Targets.

6. Following a background section (section II), this note provides a progress report on activities of the Executive Secretary and partners, undertaken in response to paragraph 5 of decision XI/16 and paragraph 10 of decision XI/24, including a series of capacity-building workshops on ecosystem conservation and restoration, global studies on ecosystem degradation and restoration, and on leveraging public programmes, and further development of web portals for access to tools and guidance (section III). Section IV provides an overview of progress towards the relevant Aichi Biodiversity Targets.

7. The present note is an update from a previous progress report on ecosystem restoration and related Aichi Biodiversity Targets prepared for the seventeenth meeting of the Subsidiary Body (UNEP/CBD/SBSTTA/17/7).

II. BACKGROUND

8. Ecosystems and their biodiversity underpin economic growth, sustainable development and human well-being. Yet the loss of biodiversity continues, resulting in serious reductions in ecosystem goods and services, negatively impacting economic prosperity and environmental sustainability. Overexploitation of natural resources throughout centuries has widely disrupted the equilibrium within ecological systems, driving changes of ecosystems worldwide. Earth's ecosystems are degrading as a result of damage, unsustainable development and a failure to invest and reinvest in their productivity, health and sustainability. The well-being of the world population in the coming decades will in large part depend on conservation and restoration of ecosystems to maintain and enhance biodiversity and ecosystem services, thereby contributing to sustainable development while reducing environment-related risks.

9. The Strategic Plan for Biodiversity 2011-2020 includes three Aichi Biodiversity Targets that establish quantitative global targets for land-use change: to halve the rate of loss of natural habitats (Target 5); to protect at least 17 per cent of terrestrial areas and inland waters and 10 percent of coastal and marine areas as part of improved protected area networks with connectivity across the landscape (Target 11) and to restore at least 15 per cent of degraded ecosystems and enhance ecosystem resilience (Target 15).

10. The Secretariat's activities follow an integrated landscape-wide approach to promote activities, including policy, planning and economic tools and monitoring and evaluation systems common and complementary in meeting all three targets. Moreover, as the targets are mutually reinforcing, coherency within governance systems and multi-stakeholder involvement can contribute to the long-term success of restoration activities. The role and involvement of a variety of stakeholders in addressing these targets are also relevant to successfully managing REDD+[1] initiatives.

11. Achievement of these targets will also contribute to other Aichi Biodiversity Targets:[2] Target 7 (food security and sustainability); Target 12 (protecting species and preventing extinctions), Target 13

[1] REDD+ is used as a shorthand for "reducing emissions from deforestation and forest degradation, conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks in developing countries", consistent with paragraph 70 of decision 1/CP.16 of the United Nations Framework Convention on Climate Change (UNFCCC). The acronym REDD+ is used for convenience only, without any attempt to pre-empt ongoing or future negotiations under the UNFCCC.
[2] More information on the Aichi Biodiversity Targets can be accessed at http://www.cbd.int/sp/targets/

(maintaining genetic diversity) and Target 14 (maintaining ecosystem services). Further, in taking a landscape approach, these targets are closely linked to Target 7 (sustainable agriculture and forestry). Addressing these targets in an integrated landscape context can help to build a common constituency among local stakeholders.

III. PROGRESS REPORT ON ACTIVITIES AND LESSONS LEARNED

A. Regional and subregional workshops on ecosystem conservation and restoration

12. In response to paragraph 5 of decision XI/16 and paragraph 10 of decision XI/24, a series of regional and subregional capacity-building workshops on ecosystem conservation and restoration have been organized (table 1).

13. The expected outcomes of the workshops are:[3]

(a) Increased capacity in countries to use appropriate assessment, policy and planning tools to promote ecosystem conservation and restoration at all appropriate levels;

(b) Development of national targets and plans for ecosystem conservation and restoration within the framework of Aichi Biodiversity Targets 5, 11 and 15;

(c) Integration of these targets and plans into updated national biodiversity strategies and action plans and mainstreaming into broader national policies, plans and programmes;

(d) Strengthened partnerships for ecosystem conservation and restoration at national, local and regional levels; and

(e) Updated information for the twelfth meeting of the Conference of the Parties on the status of progress towards achievement of Aichi Biodiversity Targets 5, 11 and 15.

14. The workshops are being organized in partnership with a number of organizations including, among others, the Food and Agriculture Organization of the United Nations (FAO), the World Resources Institute (WRI), the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the International Union for Conservation of Nature (IUCN), the World Conservation Monitoring Centre (UNEP-WCMC), the Center for International Forestry Research (CIFOR), BirdLife International and the United Nations Convention to Combat Desertification (UNCCD), as well as regional partners.

15. Where possible, at each workshop, participants include country experts on biodiversity nominated by the focal points of the Convention, country experts on planning, agriculture and/or forests nominated and supported through the Food and Agriculture Organization of the United Nations, and experts and researchers from relevant international and regional organizations.

16. The workshop programme typically comprises introductory presentations and case studies from the host country and from other countries inside and outside the region to enhance South-South and North-South collaboration and knowledge exchange. Additionally, the emphasis is on interactive dialogues and group exercises to promote mutual learning among the participants. A field study visit highlighting restoration efforts and successes is also an integral part of the programme. Background material is provided to participants in preparation for each workshop, focusing on tools to access information on the status and potential opportunities and risks for conservation and restoration, as well as relevant case studies and existing legislation related to Targets 5, 11 and 15.

[3] Further detail on the workshops was provided in annex II to document UNEP/CBD/SBSTTA/17/7.

Table 1. Timetable for subregional workshops on ecosystem conservation and restoration

Subregion	City, host country, dates	Countries Invited
Pacific	Suva, Fiji 25 to 29 November 2013	Australia, Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Zealand, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu
West Asia and North Africa	Amman, Jordan 1 to 5 February 2014	Afghanistan, Algeria, Bahrain, Cyprus, Egypt, Ethiopia, Iran (Islamic Republic of) Iraq, Jordan, Kuwait, Kyrgyzstan, Lebanon, Libya, Mauritania, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tajikistan, Tunisia, Turkey, United Arab Emirates, Uzbekistan, Yemen
South America	Linhares, Brazil 24 to 28 March 2014	Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela (Bolivarian Republic of)
Southeast Asia	Jambi, Indonesia 28 April to 2 May 2014	Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam
Caribbean	Belize City, Belize 28 April to 2 May 2014	Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago
Eastern and Southern Africa	Livingstone, Zambia 12 to 16 May 2014	Botswana, Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia, Zimbabwe
Europe	Isle of Vilm, Germany 2 to 6 June 2014	Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, European Union, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Ukraine, United Kingdom of Great Britain and Northern Ireland
Central, South, and East Asia	Jeju, Republic of Korea 14 to 18 July 2014	Bangladesh, Bhutan, China, Democratic People's Republic of Korea, India, Japan, Kazakhstan, Maldives, Mongolia, Nepal, Republic of Korea , Sri Lanka, Turkmenistan, Uzbekistan and Pakistan
Central Africa	To be determined	Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Rwanda, São Tomé and Príncipe
Central America	To be determined Tentatively: Costa Rica 8 to 12 September 2014	Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama
West Africa	To be determined	Angola, Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo

17. The following preliminary lessons arise from workshops and related case studies:

(a) A comprehensive land-use planning approach can help to reduce deforestation and loss of other native vegetation and to promote restoration. Such an approach should include a national legal framework that is applied according to the specific circumstances, needs and priorities in each region and/or biome of the country, and which provides for protection of vulnerable sites (eg: waterways, coastal areas, sloping land, hilltops) as well as, possibly, minimum areas of native vegetation;

(b) Successful approaches to tackle deforestation require a mix of policies and approaches involving several ministries and levels of government as well as the private sector and civil society, including regulations, positive and negative incentives, public and stakeholder engagement, monitoring and enforcement;

(c) A comprehensive monitoring system includes both regular and frequent near-real time monitoring and period high-resolution monitoring. By placing all data in the public domain, open to review and scrutiny, the accuracy, legitimacy and saliency of the data can be enhanced;

(d) Restoration is more costly than avoiding deforestation or other loss of native vegetation in the first place. Therefore it is important to take measures to control or avoid further deforestation, at the same time as promoting restoration;

(e) There are opportunities for large-scale restoration activities that can contribute to biodiversity conservation at the same time as contributing to climate-change adaptation and mitigation, measures to reduce desertification, and the protection of water resources and other ecosystem services;

(f) Restoration of natural corridors can help to establish or re-establish connectivity among protected areas in a landscape;

(g) Large-scale restoration is likely to be successful and equitable only if the long-term socioeconomic needs of local communities are met;

(h) Multiple sources of finance are required for conservation and restoration activities, including government budgets and private contributions as well as payment for ecosystem services. With a view to making restoration an economically viable activity, consideration should also be given to promoting restoration primarily though natural regeneration when there is sufficient ecosystem resilience, and to coupling income generation to restoration activities, for example by using fast-maturing shade trees that can provide an early financial return;

(i) Restoration activities need to give due attention to promoting both species and genetic diversity. The use of invasive species should be avoided.

18. Specific highlights of the workshops are available in annex I.

B. Global studies on ecosystem restoration

19. In 2013, the Executive Secretary commissioned a global study to provide information on ecosystem degradation and the potential for restoration in response to paragraph 5 of decision XI/16, in particular subparagraph (i). The outcome is a technical report on the Review of Global Assessments of Land and Ecosystem Degradation and their Relevance in Achieving the Land-based Aichi Biodiversity Targets —carried out by the World Resources Institute, ISRIC–World Soil Information, University of Western Australia, and the Netherlands Environmental Assessment Agency.

20. The report provides a conceptual framework for identifying and quantifying expected benefits of restoration based on reviews of global and selected sub-global estimates and assessments for areas of degradation and of restoration potential. Of the six ecosystem types assessed—agroecosystems, grasslands, forests, drylands, wetlands, and coastal areas—wetlands are the most degraded. Globally, the report indicates that the extent of degraded lands with opportunities for restoration and rehabilitation are substantial. However, land degradation and restoration potentials are context and scale specific, and value-laden, as it involves different stakeholder needs and perspectives. Lastly, the report suggests that returns on investments in restoration have been explored to a lesser extent, despite initial information revealing a potential for high-yielding investments and private sector engagement. The report will be made available for peer-review and for publication before the twelfth meeting of the Conference of the Parties.

21. Initial findings of the report were presented at a Discussion Forum on Ecosystem Conservation and Restoration organized by the Secretariat of the Convention, with support from the Japan Biodiversity Fund, at the 2013 Global Landscapes Forum, held in the margins of the eighteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, in Warsaw, Poland. The Discussion Forum highlighted targeted actions from developing country experts from Brazil and Indonesia, in pursuing an integrated approach to address ecosystem restoration potentials within and across sectors, as well as efforts from international organizations, including the Convention on Biological Diversity, the Food and Agriculture Organization of the United Nations, the United Nations Convention

to Combat Desertification, the International Union for Conservation of Nature and the World Resources Institute on cross-sectoral cooperation and country support mechanisms. Experts also highlighted experiences with remote sensing, spatial assessments and policy development in different regional contexts.

22. The Secretariat of the Convention has also initiated, with funding from the Governments of Germany, the Republic of Korea and South Africa, a global study on the potential of public programmes with socioeconomic and development objectives to contribute to large-scale biodiversity conservation and sustainable use and ecosystem restoration, and how biodiversity conservation and ecosystem restoration can contribute to poverty alleviation and development. The study has two major components: (i) a global overview and (ii) three in-depth country studies based on the experiences of Brazil, the Republic of Korea and South Africa. The global study provides a global review of public programmes with socioeconomic and development objectives that have been used for biodiversity conservation and ecosystem restoration, including through review and analysis of different case studies from all countries in all geographical regions. The in-depth country studies will focus on using these types of programmes to achieve large-scale conservation and restoration. These in-depth country studies will be standalone reports that accompany the global study, summarized and included as chapters within the report of the global study. Although the country studies are not yet final, key lessons can be distilled from them.

23. The country study from the Republic of Korea identified five key factors for success. The first key for success was strong leadership and political will; then Korean President, Park Chung-hee provided a strong vision and leadership for the reforestation of denuded forest land. Under his leadership, forest rehabilitation was chosen as the top priority government project. Another key factor for success was the establishment of strong institutions, and the placement of these institutions within key government ministries responsible for poverty reduction and economic growth. A third key factor was the integration of the national forest rehabilitation programme within the top priority government policies such as the 5-Year Economic Development, the National Comprehensive Physical Development Plan, and *Saemaul Undong* (the rural development programme). Another important factor in the success of the rehabilitation programme was the continuous economic growth of the country which helped it transition from heavy reliance on fuel wood to other energy sources, thus reducing pressures on forest resources. Finally, the migration of a significant proportion of the rural population into cities also helped to reduce the pressure on forests.

24. The South African country study identified six key factors for success. The first was the transition of the country in the 1990s from apartheid to democratic rule that allowed it the opportunity to re-write almost all of its laws. During this time, the Government was open to try new approaches and this helped with the establishment of the programme. In addition, high level political support was a key success factor. The programme received support from the highest levels of government, particularly as it was aligned with the Government's Reconstruction and Development Programme (RDP). Related to this was the establishment of the post of senior technical advisor to the Minister to provide advice on the implementation of the programme. Another key factor of success has been the linking of the environmental conservation with social needs of the population; the programme aims to achieve environmental and social/economic objectives simultaneously therefore avoiding competition between potentially disparate goals. In order to succeed for such a long time (since the early 1990s), the programme has continually emphasized its economic benefits including through the use of labor intensive invasive species management. Publicity has been another key success factor, as well as the ongoing allocation of reliable and consistent funding at national government level.

C. Access to tools and guidance

25. In preparation for the eleventh meeting of the Conference of the Parties, a number of studies were carried out, with the support of the Society for Ecological Restoration, and made available as three information documents.[4] The studies underscore a wealth of available information (more than 1500

[4] UNEP/CBD/COP/11/INF/17, UNEP/CBD/COP/11/INF/18 and UNEP/CBD/COP/11/INF/19

documents) on guidance, tools and technologies for ecosystem restoration. A dedicated webpage on the Convention's website[5] is under development to provide user-friendly access to these resources, and to other relevant websites, including:

(a) The Global Partnership on Forest and Landscape Restoration (GPFLR):[6] a proactive network of Governments, organizations, communities and individuals with the purpose of catalyzing and reinforcing a network of diverse examples of restoration of forests and degraded lands that deliver benefits to local communities and to nature, and fulfil international commitments on forests;

(b) The GPFLR Learning Network:[7] a platform to connect forest and landscape restoration practitioners worldwide, to exchange experiences and ideas on how forests, trees and their functions can effectively be restored;

(c) Landscapes for People, Food and Nature:[8] a collaborative initiative to foster cross-sectoral dialogue, learning and action. The partners involved aim to understand and support integrated agricultural landscape approaches to simultaneously meet goals for food production, ecosystem health and human well-being. Partners (People and Reforestation in the Tropics: a Network for Education, Research and Synthesis)[9]: a network that brings natural and social scientists together to address the complexity of socio-ecological processes that shape tropical reforestation;

(d) NBSAP Forum:[10] provides support for action and implementation on national biodiversity strategies and action plans through 2020;

(e) The Society for Ecological Restoration:[11] a global network dedicated to the science and practice of ecological restoration;

(f) CBD website on the programme of work on protected areas (PoWPA):[12] provides in-depth, practical, user-friendly information on the goals of the PoWPA, including interactive e-learning curricula.

IV. PROGRESS TOWARDS AICHI TARGETS 5, 11 AND 15

A. Progress towards Aichi Biodiversity Target 5

26. At the time of writing, of the 25 national biodiversity strategies and action plans (NBSAPs) received since the Strategic Plan for Biodiversity 2011-2020 was adopted, almost all either directly (12 countries[13]) or indirectly (13 countries) refer to Aichi Biodiversity Target 5 in their national targets.

27. For example, in its NBSAP, Cameroon[14] proposes a new policy orientation to reverse and halt the trend in biodiversity loss as a way to establish a strong nature base that is indispensable for socioeconomic growth. In attaining its 2013 vision for biodiversity, Cameroon identifies four strategic goals, twenty national level targets and ten ecosystem-specific targets. Among its national targets, Cameroon sets targets to reduce at least by half the rate of degradation and fragmentation of ecosystems

[5] http://www.cbd.int/restoration

[6] http://www.forestlandscaperestoration.org/

[7] http://forestlandscaperestoration.ning.com/

[8] http://landscapes.ecoagriculture.org/

[9] http://partners-rcn.uconn.edu/page.php?4

[10] http://www.nbsapforum.net/

[11] http://www.ser.org

[12] http://www.cbd.int/protected/e-learning/

[13] Democratic People's Republic of Korea, Dominican Republic, Finland, France, Japan, Malta, Switzerland, Timor-Leste, United Kingdom of Great Britain and Northern Ireland, Cameroon, Colombia and Venezuela.

[14] Cameroon's NBSAP ia available at http://www.cbd.int/nbsap/about/latest/default.shtml#Cameroon

and the loss in habitats by 2020 and commits to rehabilitate degraded ecosystems and habitats by 2020 to re-establish and/or recover lost species and to maintain these to ensure long-term sustainability. Coupled to this, it sets targets with particular ecosystem specificities, for action by 2020. These include developing and/or intensifying integrated action frameworks on all activities (mining, industrial logging, smallholder agriculture, and illegal logging) that impact on forest biodiversity conservation; reducing by at least 30 per cent bushfire incidence; increasing the use of alternative energy and reducing pressure on fuel wood; and reducing mangrove forest and associated coastal forest degradation and loss. It pledges for wetlands of great significance to be under management plans and to restore and protect at least 10 per cent of degraded fresh water catchment areas and riparian zones by 2020. Furthermore, the impacts of natural disasters leverage policy commitment to rehabilitate at least 25 per cent of sites degraded by droughts or floods within semi-arid ecosystems by 2020. Priority actions, time frames, performance indicators and implementation institutions have been identified for each of the ecosystem-specific targets to monitor and evaluate action.

28. As in many NBSAPs, the Dominican Republic[15] recognizes that the main loss of biodiversity and habitats comes from the exploitation of natural resources and pledges that by 2016, the rate of loss of natural habitats is reduced by 25 percent and degradation and fragmentation is also slowed.

29. In its NBSAP, the United Kingdom of Great Britain and Northern Ireland[16] outlines its strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea, underscoring support for healthy well-functioning ecosystems and the establishment of coherent ecological networks. A coordinated set of actions has been identified to deliver on more than one target. For example, action to reduce pressures on biodiversity may be targeted to habitats but be beneficial to priority species. Among its targets, the United Kingdom aims, by 2020, to improve wildlife habitats with 90 per cent of priority habitats in favourable or recovering condition and at least 50 per cent of sites of special scientific interest in favourable condition, while maintaining at least 95 per cent in favourable or recovering condition; ensue more, bigger and less-fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 200,000 ha; conserve at least 17per cent of land and inland water, especially areas of particular importance for biodiversity and ecosystem services; and restore at least 15 per cent of degraded ecosystems as a contribution to climate-change mitigation and adaptation.

30. These and other NBSAPs, including Timor-Leste,[17] focus greatly on mainstreaming biodiversity and on the use of incentives to sustainably use resources, while generating increased revenue for its protection.

31. Further information is available in chapter 5 of the Technical Study for the fourth edition of the Global Biodiversity Outlook (GBO-4).[18]

B. Progress towards Aichi Biodiversity Target 11

32. Progress towards the achievement of Target 11 was presented to the fourth meeting of the Ad Hoc Open-ended Working Group on Review of Implementation of the Convention (UNEP/CBD/WGRI/4/INF/5) and the eleventh meeting of the Conference of the Parties (UNEP/CBD/COP/11/26). An update is available in chapter 11 of the Technical Study for GBO-4.[18]

33. Globally, protected area coverage of terrestrial and inland waters continues to expand. The World Database on Protected Areas reports an increase of terrestrial protected areas (as a percentage of total

[15] Dominican Republic's NBSAP is available at http://www.cbd.int/doc/world/do/do-nbsap-01-es.pdf

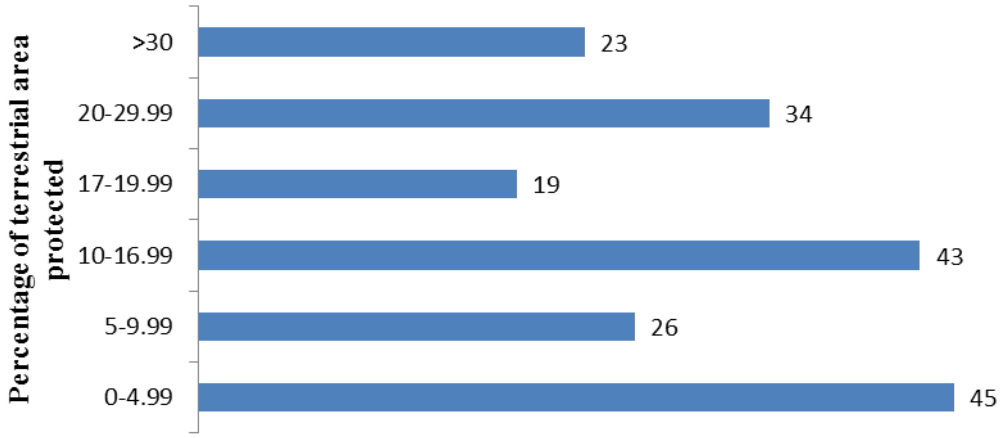
[16] The United Kingdom of Great Britain and Northern Ireland has separate biodiversity strategies and/or action plans for its four devolved administrations. To date, the NBSAP for England has been updated in line with the Strategic Plan for Biodiversity 2011-2020. It is available at http://www.cbd.int/nbsap/about/latest/default.shtml#United Kingdom

[17] Timor-Leste NBSAP available at http://www.cbd.int/doc/world/tl/tl-nbsap-01-en.pdf

[18] UNEP/CBD/SBSTTA/18/INF/8.

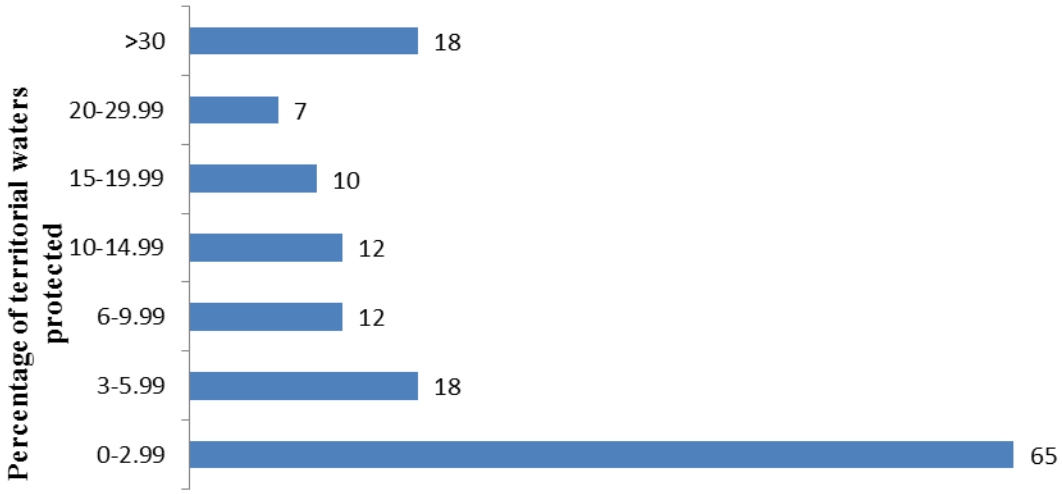
territorial area) from 14.4 per cent in 2010 to 14.6 per cent in 2012.[19] Seventy-six Parties have 17 per cent or more of their terrestrial surface areas protected. In other words, 39 per cent of the Parties to the Convention have met or surpassed the global target of securing at least 17 per cent of terrestrial and inland water areas by 2020 (figure 1).

Figure 1. Number of Parties and percent terrestrial area protected in 2012



34. Globally, protected area coverage of marine protected areas (MPAs) is also expanding gradually; the World Database on Protected Areas reports an increase of MPAs (as a percentage of territorial waters) from 9.5 per cent in 2010 to 9.7 per cent in 2012.[20] Forty-seven Parties (or 31 per cent of Parties that are not landlocked) have 10 per cent or more of their territorial waters protected (figure 2).

Figure 2 . Number of Parties and percent area of marine territorial waters protected in 2012



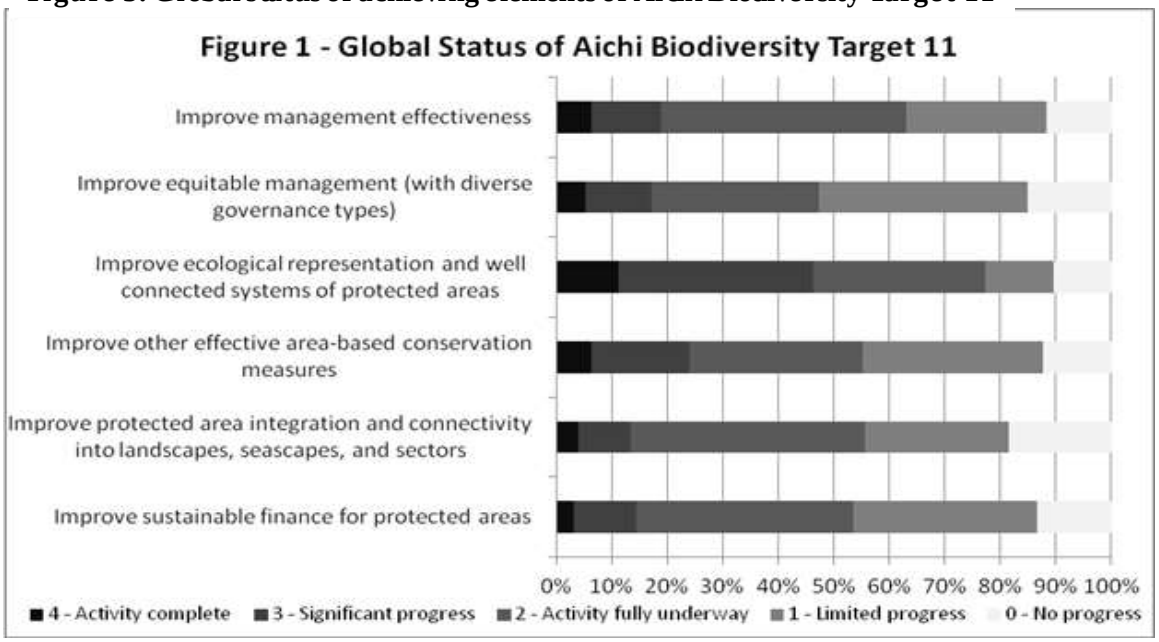
35. Progress in working towards the elements of Aichi Biodiversity Target 11 (namely, management effectiveness; equitable management; ecological representation and well-connected systems of protected areas; other effective area-based conservation measures; and integration and connectivity into landscapes

[19] Source: UNEP-WCMC, World Database on Protected Areas: http://www.wdpa.org/Statistics.aspx

[20] Ibid.

and seascapes) was assessed using a five point Likert scale, where "0" indicates that work has not begun and "4" indicates that the element has been achieved. Figure 3 summarizes progress made for 98 Parties that have officially submitted an action plan for implementing the programme of work on protected areas.[21] It illustrates that many activities are underway for each of the elements of Aichi Biodiversity Target 11. Elements with the most actions indicated are: improving ecological representation, and promoting well-connected systems of protected areas.

Figure 3. Global status of achieving elements of Aichi Biodiversity Target 11



Development of criteria for "Key Biodiversity Areas"

36. This section provides an update on the development of criteria for Key Biodiversity Areas. It complements the note submitted by IUCN and Birdlife International for the information of participants in the seventeenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (UNEP/CBD/SBSTTA/17/INF/10).

37. Aichi Biodiversity Target 11 requires the identification of "areas of particular importance for biodiversity and ecosystem services". Currently there are various approaches for listing areas of particular importance for biodiversity that are promoted by international organizations. These include: Important Bird and Biodiversity Areas (Birdlife International); Important Plant Areas (Plantlife International); Key Biodiversity Areas (Conservation International); and Alliance for Zero Extinction Sites.

38. In addition, many countries have developed their own criteria and systems for identifying priority areas for conservation. For marine and coastal biodiversity, the Convention has adopted criteria for ecologically and biologically significant areas.

39. In 2009, an IUCN World Commission on Protected Areas and IUCN Species Survival Commission joint task force was established to convene a consultation process to consolidate scientific criteria and methodology to identify sites of global significance for biodiversity (also known as "Key Biodiversity Areas"). These criteria are developed to support national and regional processes in identifying important sites within their jurisdiction and intend to help government agencies, decision makers, resource managers, local communities, the private sector, donor agencies, and others to target the implementation of site conservation safeguards.

[21] The data was adapted from progress data on the implementation of the goals of the programme of work on protected areas. Data on improving sustainable financing was added to gain a more rounded perspective on the status of achieving Aichi Biodiversity Target 11.

40. Parties will determine how to apply the eventual IUCN proposals nationally, noting that the criteria and thresholds might differ for some national purposes.

41. Through a series of expert workshops, the process has identified some draft criteria for the identification of Key Biodiversity Areas. To qualify as a Key Biodiversity Area, a site must contribute significantly to the global persistence of one of the following:

(a) Threatened biodiversity;

(b) Geographically restricted biodiversity;

(c) Outstanding ecological integrity;

(d) Outstanding biological processes;

(e) Irreplaceability.

42. Annex II provides more information on the proposed criteria and links to the original workshop reports.

43. The currently proposed specific thresholds that quantify globally "significant" for each of these criteria were developed through a technical workshop held in December 2013.

44. So far, the work of the task force has focused largely on natural science-based criteria and thresholds. There has been less progress with sociocultural criteria for identification of key areas (for example important sites regarding cultural/religious biodiversity values) or to socioeconomic criteria (for example, sites of particular importance for ecosystem services).

45. It is intended that the task force will submit the Key Biodiversity Areas standard to the IUCN Council for endorsement in October 2014, and that the Key Biodiversity Areas standard will be launched at the World Parks Congress (Sydney, Australia, November 2014).

Governance of protected areas

46. The programme of work on protected areas suggests that Parties recognize and promote a broad set of protected area governance types related to their potential for achieving biodiversity conservation goals in accordance with the Convention, which may include areas conserved by indigenous and local communities and private nature reserves (Activity 2.1.2). Parties have recognized the importance of indigenous and local community conserved areas (ICCAs) in the programme of work on protected areas and in recent decisions of the Conference of the Parties. Specifically, decisions X/31 and IX/18 call for their recognition and support to be provided. Since ICCAs are often an effective mechanism for conservation, they can play a role in implementing the Strategic Plan for Biodiversity 2011-2020 and, in particular, in achieving Aichi Targets 11 (on protected areas), 13 (on food security), 16 (on the Nagoya Protocol on Access and Benefit-Sharing), and 18 (on traditional knowledge and customary sustainable use). A publication (CBD Technical Series No. 64[22]) was prepared in response to decision X/31, by which the Conference of the Parties requested the Executive Secretary to provide additional technical support through the development of toolkits, best practices, and guidelines on themes of the programme of work on protected areas in collaboration with Parties, partners and international organizations.

47. Private protected areas (PPAs) are recognized by both the Convention and IUCN, but have hitherto received less attention than other protected area governance types and are often not reported to the World Database on Protected Areas. PPAs can be owned and managed by individuals and groups of individuals, non-governmental organizations, corporations, research entities and religious entities. PPAs must meet the CBD and IUCN definitions of a protected area and should ensure long-term conservation, including maintenance of protected area status following ownership changes. PPAs are commonest in North and South America, Europe, Australia and some African countries. But PPA networks are beginning to be established in Asia as well. The geographical extent of PPAs is small compared with either state or community protected areas. However, PPAs are critical in some situations, e.g., where state

[22] http://www.cbd.int/doc/publications/cbd-ts-64-en.pdf

protection is difficult; as a rapid response to sudden threats to an ecosystem; to fill gaps in existing protected area systems; and where conservation organizations can focus fundraising on priority areas for conservation. As it becomes progressively more difficult to find areas suitable for government protected areas, the role of PPAs is likely to become progressively more important as a factor in achieving Aichi Target 11.

C. Progress towards Aichi Biodiversity Target 15

48. This section discusses the aspects of Aichi Target 15 related to ecosystem restoration and combating desertification. The aspects of Aichi Target 15 related to carbon stocks and climate-change mitigation and adaptation are discussed in the report to the Subsidiary Body on biodiversity and climate change (UNEP/SBSTTA/18/13).

49. Of the 25 Parties that have provided updated NBSAPs or National Targets since 2010, 22 include targets for ecosystem restoration. Ten of these provide quantitative targets: seven countries (Belgium, Belarus, Brazil, Dominica, Japan, Malta, the United Kingdom of Great Britain and Northern Ireland) and the European Union, have a target to restore at least 15 per cent of degraded lands (the same as the global Aichi Target 15); while Australia has a target to restore 100,000 ha by 2015, Iraq 100,000 ha by 2020, and Namibia to restore 15 per cent of priority areas by 2022.

50. A number of countries refer to the restoration of specific habitats in their targets. For example, Timor Leste has set a target related to the restoration of critical watersheds and China has set a target for the restoration of the aquatic environment and ecology and for degraded grasslands. Some countries have also specified how restoration is to be undertaken. For example, in its NBSAP, Belarus notes that they aim to decrease their use of single species forest plantations when undertaking restoration actions.

51. Regarding the development of policies and strategies, many Parties have reported good progress through their fifth national reports. For example Niger's fifth national report details provisions for the rehabilitation and preservation of biodiversity, including through rehabilitation of 150,000 ha of degraded habitats, protection of water bodies by stabilizing 35,000 ha of dunes; and development of agroforestry through assisted natural regeneration of 200 000 ha of land. Colombia has reported on the National Restoration Plan that addresses the drivers of loss and transformation identified by the Millennium Ecosystem Assessment and utilizes three implementation approaches: ecological restoration, rehabilitation and recovery.

52. On the development and implementation of national programmes for restoration, various approaches have been reported in the fifth national reports. South Africa has reported on ongoing work to restore priority ecosystems through natural resource management programmes (such as Working for Water and Working for Wetlands) that are being implemented as part of the Government's Expanded Public Works Programme. In addition to large-scale ecosystem restoration these programmes create large numbers of work opportunities for previously unemployed people.

53. In its fifth national report, Moldova reported on the elaboration and implementation of the national programme on ecological reconstruction of degraded forests and increase of forest areas. Through this programme, the agency responsible for restoration has approved technical norms for the ecological reconstruction of forest stands.

54. According to the fifth national reports, there has been tremendous progress in the restoration of specific ecosystems and biomes. For example, China reports the restoration and re-construction of coastal and marine areas such as coastal weed wetlands, mangroves, coral reefs, seagrass beds and *Suaeda* wetlands. Since 2010 a total investment of nearly 3.875 billion yuan RMB was made to restore mangroves and tidal flats and other important wetlands, with areas restored exceeding 2,800 km^2. South Africa reported major progress in restoring the health of St. Lucia, South Africa's flagship estuary and one of the most important nurseries for marine fish on the southeast African coast. Niger reported significant achievements in the natural regeneration of parklands.

55. China also reports the recovery of forest ecosystems with an increase in reforested area of 482,000 km^2 and forest coverage area of 23 per cent over that of a decade ago. These projects have also

enhanced restoration of habitats of wild species and resulted in an increase of species populations and numbers of species.

56. Further information is available in chapter 15 of the Technical Study for GBO-4.[23]

[23] UNEP/CBD/SBSTTA/18/INF/8.

Annex I

HIGHLIGHTS FROM THE SUBREGIONAL CAPACITY-BUILDING WORKSHOPS ON ECOSYSTEM CONSERVATION AND RESTORATION

Subregional workshop for the Pacific:

- Many countries in the Pacific highlighted the degradation of ecosystems caused by invasive alien species. They showcased various ecosystem restoration projects focussing on the eradication of invasive species taking place in the region, e.g. in the Cook Islands;
- The field trip to a Sago Palm restoration highlighted the importance of including local communities in restoration, and the role that non-governmental organizations can play in supporting government objectives.

Subregional workshop for West Asia and North Africa:

- Spatial planning tools and analysis can help raise political attention for ecosystem conservation and restoration.
- Raising public awareness of the economic values of ecosystems and biodiversity can improve understanding of the interdependencies between societal needs, the economy and natural capital.
- The use of Geographic Information Systems for data collection purposes and land-use planning varies from country to country but there are opportunities to coordinate across sectors.
- Estimates on ecosystem degradation relate mainly to extent and less about quality.
- Economic and financial considerations of ecosystem services and benefits are required.
- Opportunities are being explored to rehabilitate, intensify productivity, and diversify production in lowland areas, to provide forage while conserving biodiversity.
- Despite restoration success stories in Arab countries,[24] several countries lack holistic policy approaches on ecosystem management.
- For restoration activities to be viable, robust ecosystem management compliance and enforcement of current and future regulations and laws, and local community involvement are needed.
- Cooperation mechanisms amongst agencies can provide context-specific support to countries to achieve various Aichi Biodiversity Targets.
- Ecosystem restoration requires cross-sectoral coordination and economic support.
- The field visit to Azraq Wetland Reserve, a designated Ramsar site, demonstrated the conflicting demands for water resources between people and for the functioning of ecosystems.
- Species and genetic diversity are important considerations in ecosystem restoration.

Subregional workshop for South America:

- Brazil's successful approach to tackle deforestation (the Plan for Amazon Deforestation Prevention and Control) involves a mix of policies and approaches involving several ministries and levels of government as well as the private sector and civil society, including regulations, positive and negative incentives, public and stakeholder engagement, monitoring and enforcement.
- A comprehensive monitoring system includes both regular and frequent near-real time monitoring and period high-resolution monitoring. These correspond to Brazil's DETER and PRODES respectively. Similarly, Colombia has this dual system of monitoring.
- Efforts are required not only to intensify restoration of forest ecosystems, but also of savannahs, wetlands, paramos and other ecosystems of the South American region of high biodiversity value.
- A field visit to the seedling nursery in The Vale Reserve highlighted the importance of incorporating traditional knowledge into restoration efforts. It also physically demonstrated the

[24] Restoration programme of El Shouf forest in Lebanon; the Ichkeul Lake of the Ichkeul National Park in Tunisia; Argan Trees in Argan Biosphere reserve in Morocco: Water management in Saint Catherine Protected Area, Egypt; Nubian Ibex in Saudi Arabia; and the management of special habitats by the local community at the Samadi, Red Sea Coast - site where spinner dolphins are located.

difference between restoration and reforestation, which generated much discussion and interest from the participants.

- A second field visit to Fibria pulp factory in Aracruz showcased an experimental project of restoration with combined native tree species with eucalyptus. This project is done in conjunction with the Atlantic Forest Restoration Pact and researchers from the University of Sao Paulo, Superior School of Agriculture "Luis de Queiroz".
- Participants noted that the workshop provided an excellent opportunity for them to share their national experiences and create an informal network to continue the exchange of processes and outcomes.

Subregional workshop for Southeast Asia:

- Recognize that restoration is a more costly option than avoided deforestation.
- Take measures to avoid further deforestation through a variety of methods in order to successfully implement long-term restoration efforts.
- Integrate and use funds to tackle avoided deforestation, improve governance of protected area systems and assess restoration potentials to meet climate-change objectives, and enhance other ecosystem services and socioeconomic priorities.
- Use REDD+ funding more effectively for ecosystem restoration.
- Develop a Payment for Ecosystem Services scheme at the district and provincial levels to promote sustainable financing for conservation of biodiversity.
- Strengthen government support through developing new regulations and policies that promote ecosystem restoration activities.
- Support the creation of innovative solutions for the sustainable financing of biodiversity conservation and restoration.
- Strengthen the enforcement of current and future regulations and laws.
- Coordinate current GIS data across departments and work towards developing open-access systems.
- Develop and enforce norms to require entities that profit from the exploitation of natural resources to re-invest in the natural capital. Norms should be guided by tools/guidelines on restoration practices as well as safeguards on biodiversity conservation (e.g. logging concessions; mining companies through biodiversity offsets).
- Apply restoration activities on land with low opportunity costs.
- Promote increased sustainable land-use productivity for agriculture and cattle to allow for restoration activities.
- Identify opportunities to attract and engage private sector investment for ecosystem restoration and conservation.
- Encourage the design of activities which aim to be self-sustaining, not reliant on donor funding.
- Promote sustainable products and consumptions patterns of timber and non-timber wood products.
- Manage and promote the enhancement of genetic resources in restoration activities.
- Balance land-use priorities to meet livelihoods, food security, ecosystem resilience and productivity through integrated land-use planning for ecosystem restoration.

Subregional workshop for the Caribbean:

- There has been great progress in conservation in the Caribbean – many of the countries have completed ecological gap analyses, and some have prepared protected areas action plans. This means that the region is well placed to achieve Aichi Target 11. Good examples include the Bahamas (second ecological gap analysis, Belize (national protected areas system), St. Lucia.
- There is a lot of progress in designated marine protected areas. In that context, the political momentum provided by the Caribbean Challenge was highlighted several times. Examples include St. Vincent and the Grenadines, and Jamaica.

- A lot of work is ongoing in the region to restore degraded ecosystems. Several good examples were provided during the workshop e.g. Trinidad and Tobago (Narisha swamp), Belize (Laughing Bird Caye – coral restoration).
- While many countries have yet to begin, or have only just begun, the revision of their NBSAPs, they indicated that they expected to submit their NBSAPs and fifth national reports by September 2014.
- FAO highlighted the potential for restoration, and natural regeneration, provided by the abandonment of agricultural lands (former banana and sugar cane production) in many Caribbean countries. In order to shape the future of those lands, CBD Parties have to be proactive in setting policies for restoration and regeneration.

Subregional workshop for Eastern and Southern Africa:

- Conservation and restoration are complementary and should go hand in hand.
- Where feasible and appropriate assisted natural regeneration should be encouraged and supported as a key approach for ecosystem restoration. Natural regeneration is in general a more effective, less costly and easier to implement alternative.
- Experience and studies indicate that it is economically rational to invest in the restoration of degraded ecosystems as the benefits far outweigh the costs.
- Short-term values and gains by farmers and land owners should be promoted to encourage them to engage in forest and landscape restoration. For example, farmers in Niger have been able to re-green 5 million ha, and have received short-term benefits such as grain surpluses and cash income from non-timber forest products. These farmers have actively protected their trees in order to rely on them if their crops fail, particularly in drought years.
- Support national capacity-building in the economic valuation of the multiple benefits of restoration.
- To achieve Aichi Target 15, each country should consider working with the Global Partnership in Forest Landscape Restoration (GPFLR) as well as making pledges to the Bonn Challenge to begin the process of restoring a targeted number of hectares of degraded land before 2020.
- There needs to be more awareness of existing innovative financial mechanisms such as REDD+ and other funds to effectively avoid deforestation, improve governance of protected area systems, but also to restore degraded ecosystems. This will help countries to conserve and enhance biodiversity, meet climate-change objectives and improve food security.
- Adapt and strengthen implementation of national land-use policies and legislation so that they incentivize millions of smallholder farmers as well as commercial enterprises to invest in sustainable land management in general and in trees in particular, where appropriate.
- Empower and support indigenous and local communities to effectively manage their natural resources.
- Identify opportunities to attract and engage private sector investment for ecosystem restoration and conservation as well as for the development of agroforestry value chains.
- Strengthening institutions at all levels (regional, national, provincial and local – including local community institutions) to encourage collaboration on, and coordination of, efforts on conservation and restoration.

Annex II

DRAFT CRITERIA FOR KEY BIODIVERSITY AREAS

To qualify as a Key Biodiversity Areas, a site must contribute significantly to the global persistence of one of the following (All sites should be assessed against all the criteria, but meeting any one of the criteria is enough to qualify a site as a Key Biodiversity Areas):

A. Threatened biodiversity: identifies sites contributing significantly to the persistence of taxa that are formally assessed as globally threatened or expected to be classified as globally threatened once their risk of extinction is formally assessed; or nationally/regionally endemic taxa that have not been formally globally assessed but have been nationally/regionally assessed as threatened; or ecosystems that are formally assessed as globally threatened or expected to be classified as globally threatened once their risk of collapse is formally assessed;

B. Geographically restricted biodiversity: identifies sites contributing significantly to the persistence of species that are geographically restricted by having highly clumped populations or by occurring at few sites; or assemblages of species with geographically restricted ranges in centres of endemism or genetic distinctness; or ecosystems with geographically restricted distributions or which occur at few sites;

C. Outstanding ecological integrity: identifies sites contributing significantly to the global persistence of biodiversity because they are exceptional examples of ecological integrity and naturalness, as represented by intact species assemblages, comprising the composition and abundance of native species and their interactions, within the bounds of natural ranges of variation; or the most outstanding places, within biogeographic regions, of relatively intact regionally distinct, contiguous areas of ecosystem and habitat diversity that contain regionally distinct species assemblages with high contextual species richness;

D. Outstanding biological processes: identifies sites that, because of the evolutionary processes of exceptional importance that occur within them, contribute significantly to the persistence or rapid diversification of biodiversity; or that support species at key stages in their life-cycles, in which they occur in geographic and/or demographic aggregations; or that, because of the ecological processes of exceptional importance that occur within them, contribute significantly to the long-term persistence of biodiversity;

E. Biodiversity as identified through a comprehensive quantitative analysis of irreplaceability: sites of exceptional irreplaceability, as identified through complementarity-based approaches.

Further information is available in the reports of the meetings:

- Identifying sites that contribute significantly to the global persistence of biodiversity (Key Biodiversity Areas): Criteria and Delineation Workshop report, Front Royal, Virginia, USA 11-14 March 2013, IUCN WCPA/SSC Joint Task Force on Biodiversity and Protected Areas.[25]
- Development of the standard for identification of sites contributing significantly to the global persistence of biodiversity (Key Biodiversity Areas): recommendations from the Thresholds Workshop, Sapienza Universitá di Roma & Fondazione Bioparco di Roma, Italy, 1-5 December 2013.[26]

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[25] https://cmsdata.iucn.org/downloads/criteria_and_delineation_workshop_report_final_28january2014.pdf

[26] https://cmsdata.iucn.org/downloads/thresholds_workshop_report_final_28january2014.pdf