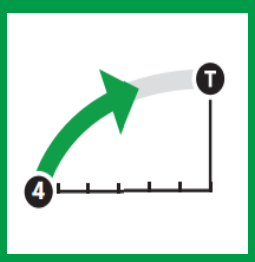
Aichi Biodiversity Target 11:
Natural Wealth and Multiple Benefits



Aichi Biodiversity Target 11 addresses the value of protected areas and other effective area-based conservation measures as proven, vital, and cost-effective nature-based strategies not only for conserving biodiversity, but for securing ecosystem goods and services, enabling climate change adaptation and mitigation, and helping countries achieve the Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development.

Up till now, the CBD Secretariat has organized six regional workshops, which resulted in 1,400 priority actions identified by governments from over 100 countries, to address all elements of Target 11. These national road maps, when implemented, will generate multiple benefits not only for the achievement of many elements of Aichi Biodiversity Target 11, but also to other Aichi Targets, relevant targets of the SDGs, and relevant Articles of the Paris Agreement on climate change mitigation and adaptation.

In order to make a stronger case for the implementation of priority actions, these fliers were developed. I trust they will be of value to many and inspire coordinated action for the implementation of these national road maps.

CBD UNEP WCMC European Commission IUCN WCPA BirdLife INTERNATIONAL UNDP

Co-financed by: Ministry of Environment Republic of Korea · german cooperation · Japan Biodiversity Fund · European Commission

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Implementation Implementation Implementation: How to make it happen?

CBD Secretariat's strategy on Aichi Biodiversity Target 11

In the midterm assessment of progress towards the achievement of Aichi Biodiversity Targets, presented in the fourth edition of the *Global Biodiversity Outlook* (2014), Target 11 showed a promising picture, suggesting that with more focus and systematic efforts, many elements of the target could be achieved by 2020. In order to facilitate the achievement of Target 11, the CBD Secretariat developed a two-phase strategy, which includes: renewing partnerships and commitments from partner organizations; developing baseline data for countries in the form of information dossiers; providing capacity development to Parties; and securing the submission of questionnaires, status matrices, and national actions (identified priority actions to be undertaken in the next four years, in the form of road maps).

First phase (2015-2016): Collecting information on the status of each element of Target 11, and focused actions, as a country driven process

Seek willingness and coordination with partner agencies → Develop country data dossiers → Communicate with PoWPA focal points → Conduct regional workshops and identify national actions → COP 13 reporting

Six workshops were held for countries in Africa, Asia and Pacific, Central and Eastern Europe, and Latin America and the Caribbean. The results are very encouraging, to date: of 124 countries that attended the workshops, 108 countries submitted information on the national status of Target 11, and 100 countries submitted their priority actions to be undertaken in the next four years.

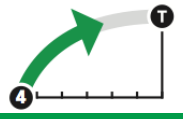
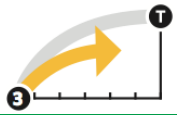
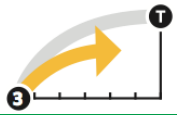
Through this series of workshops, more than 1,400 priority actions addressing all elements of Target 11 have been identified by countries, including:

- 186 actions to improve the protected area coverage of terrestrial and inland waters
- 62 actions to improve the protected area coverage of coastal and marine areas
- 207 actions to improve the coverage by protected areas of areas of particular importance for biodiversity and ecosystem services
- 172 actions to improve the ecological representation of protected area systems
- 238 actions to make protected areas more effectively managed
- 163 actions to make protected areas more equitably managed
- 172 actions to create well connected systems of protected areas
- 92 actions to integrate protected areas into the wider landscape and seascape
- 157 actions to improve the contribution of other effective area-based conservation measures

The analysis of the priority actions submitted by countries reveals that **when implemented**, they will not only contribute to achieve elements of Target 11, but will also contribute to:

- other Aichi Biodiversity Targets, namely 5, 6, 7, 9, 10, 12, 13, 14, 15, 18, 20 directly, and 1, 2, 19 indirectly;
- many Sustainable Development Goals and subtargets, namely 14.5, 15.1, 15.2, 15.5, 15.8 directly, and 1.2, 12.2, 15.7, 15.8 indirectly, through the goods and services provided by protected areas;
- climate change adaptation and Article 5.1 of the Paris agreement;
- the Sendai Framework for Disaster Risk Reduction, 2015-2030;
- synergistic implementation of requirements in other MEAs, including UNESCO-MAB, UNESCO-WH, Ramsar, CMS.

Summary of Progress towards Target 11, reported in the *Global Biodiversity Outlook 4* (2014)

Target Elements (by 2020)	Status
At least 17% of terrestrial and inland water areas are conserved	
At least 10% of coastal and marine areas are conserved	
Areas of particular importance for biodiversity and ecosystem services conserved	
Protected areas are ecologically representative	
Protected areas are effectively and equitably managed	
Protected areas are well connected and integrated into the wider landscape and seascape	

196 Information dossiers covering all CBD Parties were prepared

To help Parties collect and share information and data on the status of Aichi Biodiversity Target 11, the CBD Secretariat has prepared data dossiers using information from BirdLife International, the Digital Observatory for Protected Areas (DOPA), the Global Environment Facility (GEF), and the World Database of Protected Areas (WDPA). Each country data dossiers includes information on: estimated protected area coverage; terrestrial and marine ecoregions; Important Bird and Biodiversity Areas (IBA); Alliance for Zero Extinction Sites (AZE); overlaps between unprotected and partially protected IBAs and AZEs and candidate ecological region for further protection; and allocation and utilization of the country's fifth and sixth replenishment of the GEF.

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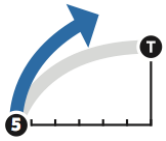
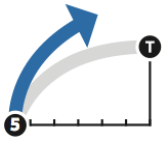
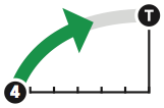
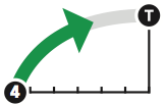
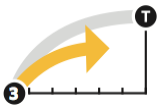
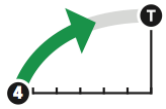
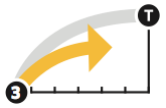
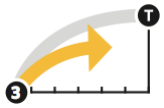
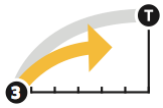
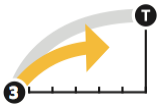
Implementation Implementation Implementation: How to make it happen?

CBD Secretariat's strategy on Aichi Biodiversity Target 11

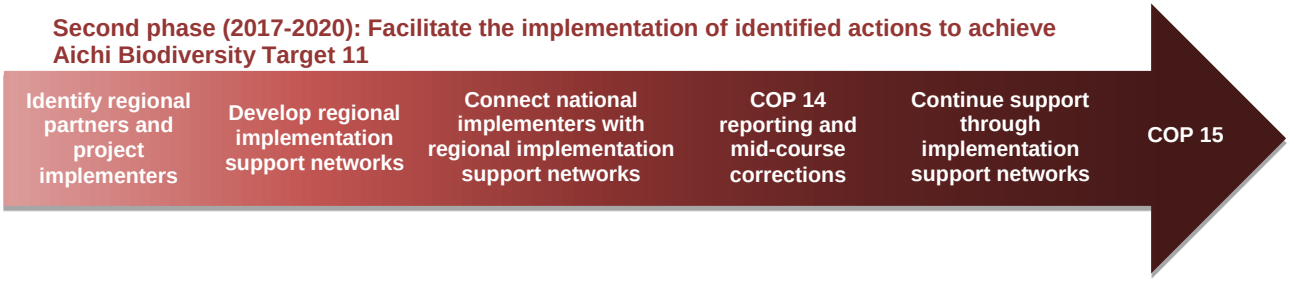
Given the presentation of identified actions following the six workshops, it is estimated that for some elements of the Target, progress will be improved compared to the midterm assessment presented in the fourth edition of the *Global Biodiversity Outlook*. For example, 42 countries submitted quantifiable actions or opportunities to improve protected area coverage of terrestrial and inland waters, which will collectively add over 710,000km^2 to the current global coverage of 19.85 million km^2. Including approved GEF projects and projects from other bilateral funding agencies, as well as the coverage of Indigenous and Local Community Conserved Areas and other effective conservation measures will further improve the outlook for terrestrial protected area coverage. For marine areas within national jurisdiction, the 10% target has already been met; actions identified by 25 will add over 1 million km^2, further improving the outlook for marine protected area coverage. These planned protected area additions will improve the coverage of both terrestrial and marine ecoregions, as well as areas of particular importance for biodiversity and ecosystem services. Additionally, with over 45 actions involving protected area management effectiveness assessments, over 70 actions for implementing or improving protected area management plans, and over 100 other actions for improving overall management effectiveness, this element may be met as well.

Element:	At least 17% terrestrial and inland waters	At least 10% coastal and marine areas	Ecologically representative	Areas important for biodiversity	Areas important for ecosystem services
Status if Priority Actions are implemented as proposed					
Element:	**Effectively managed**	**Equitably managed**	**Well connected**	**Integrated into wider land/seascape**	**OECMs**
Status if Priority Actions are implemented as proposed					

Then, what is required to facilitate the implementation of these identified actions?

For making implementation a reality, focused actions, funding, technical support, monitoring and reporting are needed. All relevant partners, including relevant government ministries, departments, GEF implementing agencies, regional organizations, bilateral and multilateral funding agencies, the private sector, and conservation and community organizations, should consider aligning their activities towards supporting implementation of those identified actions as the primary framework of action and, thus, approach implementation in a concerted manner with comprehensive coordination among all.

Second phase (2017-2020): Facilitate the implementation of identified actions to achieve Aichi Biodiversity Target 11



The Subsidiary Body on Scientific, Technical and Technological Advice at its twentieth meeting adopted recommendations to facilitate the implementation of these identified actions for consideration by the COP at its 13th meeting, for example:

Invites Parties, other Governments, relevant partners, regional agencies, bilateral and multilateral funding agencies, in conjunction with the Secretariat of the Convention on Biological Diversity, taking into account information provided by, and in consultation with Parties and other Governments, and subject to the availability of resources:

To facilitate support networks at the regional and subregional level, as appropriate, to build capacity and support the implementation of national actions identified in national biodiversity strategies and action plans and, as appropriate, through the regional workshops for the achievement of Aichi Biodiversity Targets 11 and 12, to promote the preparation, use and sharing of technical guidance, best practices, tools, lessons learned, and monitoring efforts;

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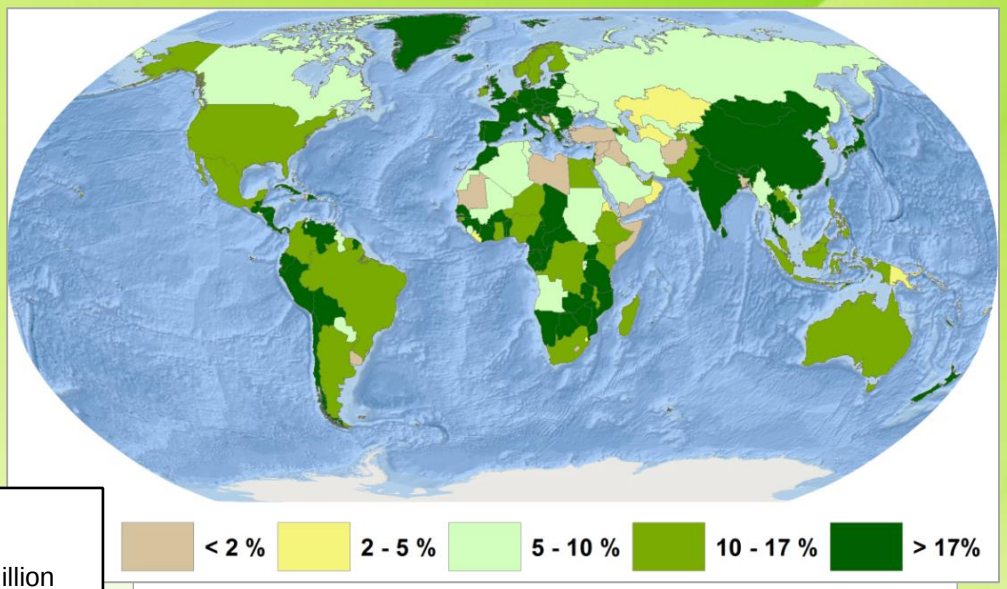
Aichi Biodiversity Target 11 – Terrestrial Quantitative Element

By 2020, at least 17 per cent of terrestrial and inland water areas are conserved...

Current global status*

14.7%

* as per the April 2016 release of the WDPA (reported in the *Protected Planet Report, 2016*)



Terrestrial protected area coverage, based on National Status submissions received from 92 countries during the regional workshops; data for the remaining countries from the World Database on Protected Areas (WDPA, April 2016). In all, **44%** of CBD Parties have reached or surpassed the 17% terrestrial protection target.

What is needed for achievement?

Designation of an additional 2.3% (over 3 million km^2) of terrestrial and inland waters as protected areas or other conserved areas.

Proposed actions from 42 Parties, approved GEF 5 projects from 53 Parties and existing ICCAs in 22 countries will add 2.9 million km^2 (over 2%).

After this, less than 0.2% remains to be added to achieve this element; though more areas may need to be designated for other elements (representation, areas important for biodiversity).

To facilitate the achievement of Target 11, the CBD Secretariat developed a two-phase strategy, which includes: 1) renewing partnerships and commitments from partner organizations, developing baseline data for countries in the form of information dossiers, providing capacity development to Parties; and 2) securing the submission of questionnaires, status matrices and national actions (priority actions to be undertaken in the next four years in the form of road maps).

Following completion of six regional workshops, in Africa, Asia-Pacific, Central and Eastern Europe, Latin America and the Caribbean (GRULAC), excluding Western Europe and Others Group (WEOG), more than 1,400 priority actions addressing all elements of Target 11 have been identified by countries (including **186 actions** to improve coverage of terrestrial and inland waters by protected areas).

Examples of priority actions

- ✓ Morocco aims to designate 25 new protected areas by 2020, covering 25,000 km^2, and increasing coverage to 19% for terrestrial and inland waters
- ✓ Brazil plans to add 1 million hectares of terrestrial protected areas in the Caatinga and Pantanal biomes with Global Environment Facility (GEF) support, as well as 6 million hectares within the Amazon Rain Forest with the support of the Amazon Region Protected Areas Program.

Examples of expected outputs of approved GEF 5 projects

- ✓ Brazil: Consolidation of National System of Conservation Units and Enhanced Flora and Fauna Protection **,** which will lead to at least 24 new protected areas being declared covering approximately 1 million hectares
- ✓ FYR Macedonia: Achieving Biodiversity Conservation through Creation and Effective Management of Protected Areas and Mainstreaming Biodiversity into Land Use Planning, which will increase protected area coverage from 8 to 12%

It is estimated that progress towards achieving this element is showing improvement compared to the midterm assessment from the fourth edition of the *Global Biodiversity Outlook* (2014), and the element can be achieved before 2020, and may even exceed the target by 2020.

- ❖ Forty-two countries submitted quantifiable actions or opportunities to improve protected area coverage for terrestrial and inland water areas, adding **712,085 km^2** to the current 19.8 million km^2. Additionally, 43 other countries have identified priority actions which include the expansion of terrestrial protected areas, with the area being added still to be determined.
- ❖ Expected outputs of approved GEF 5 projects from 53 countries, not included in priority actions, add another **227,735 km^2**.
- ❖ Both the Programme of Work on Protected Areas and successive decisions of the CBD COP (IX/16 and X/31) accord recognition to private protected areas and Indigenous and Local Community Conserved Areas (ICCAs). Including existing ICCAs, excluding those with clear overlaps with the existing protected area network or where conservation status is unclear, adds almost **2 million km^2**.

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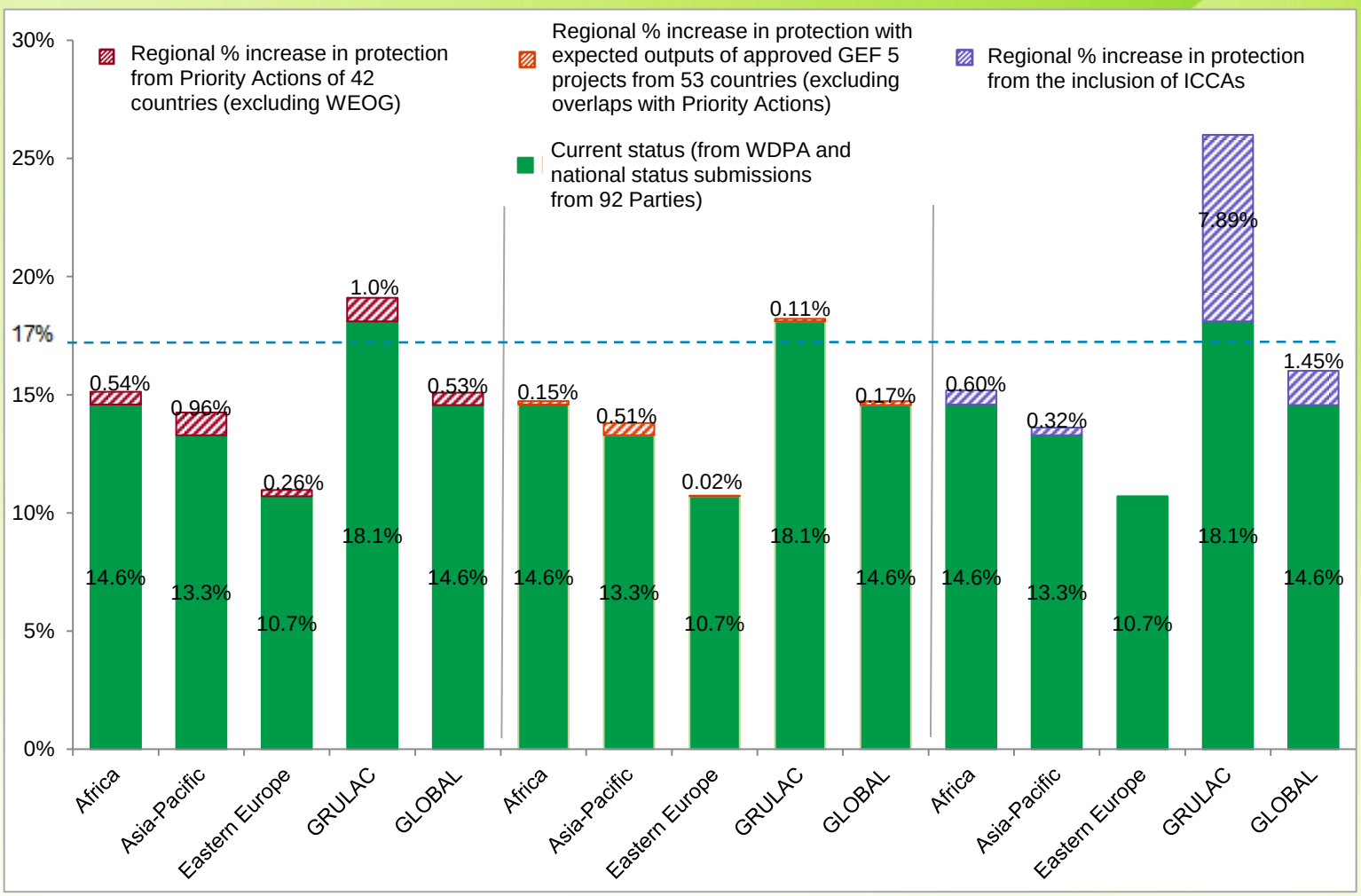
Improvement in the status of the terrestrial quantitative element of Target 11



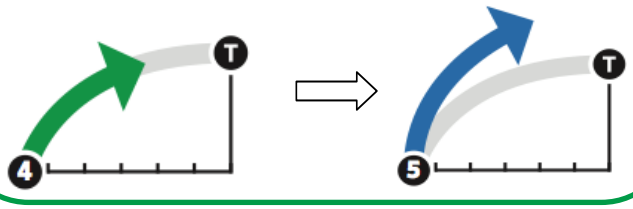
This estimation of progress does not incorporate planned protected area expansions from the WEOG region, nor does it include a comprehensive assessment of ICCAs for all countries. As such, the outlook may change as more Parties report on actions being taken to implement this element of the Target, a systematic assessment of ICCAs in all countries is completed, and other national protected area categories that may not currently be listed in the WDPA are identified and mapped (examples could include the protected forests or forest reserves in India and the Gazetted wetlands in Uganda). Inclusion of GEF 6 projects, and those funded through other bilateral agencies will further improve the outlook for achievement of this element.

With a systematic effort by all, the opportunity exists to meet and exceed this element of the Target by 2020.

Target 11 Implementation Status

Status from *GBO-4*

Status if Road Maps are implemented as proposed



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Aichi Biodiversity Target 11 – Marine quantitative element

By 2020, at least 10 per cent of coastal and marine areas are conserved...

Current global status*

10.2%**

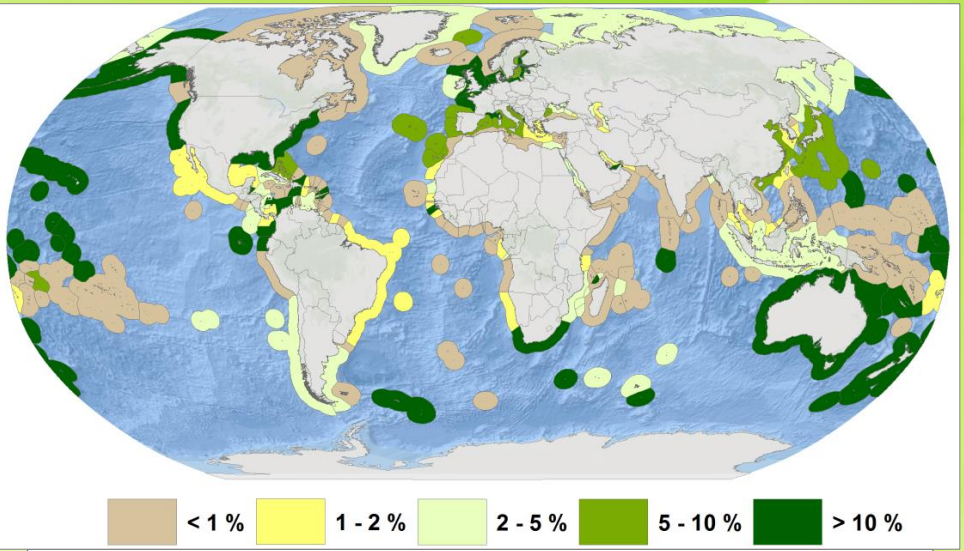
**for areas within national jurisdiction (0- 200 nm)

* as per the April 2016 release of the WDPA (reported in the *Protected Planet Report, 2016*)

What is needed for achievement?

For marine areas within national jurisdiction (from 0 – 200 nm) the 10% target has already been achieved.

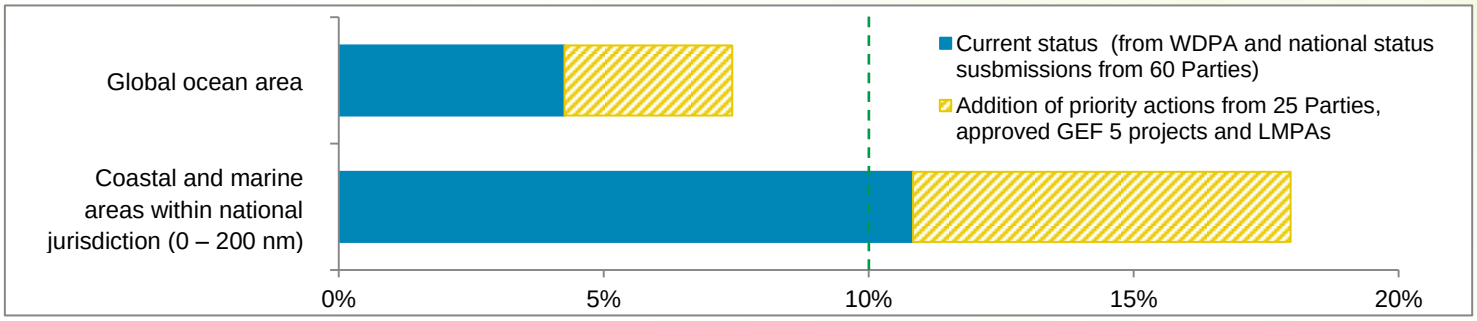
However, 129 CBD Parties with maritime borders have not reached 10% coverage.



Coastal and marine protected area coverage, for areas within national jurisdiction (from 0 – 200 nm), based on National Status submissions received from 60 countries during the regional workshops; data for the remaining countries from the World Database on Protected Areas (WDPA, April 2016). In all, **18%** of CBD Parties with maritime borders have reached or surpassed the 10% target for coastal and marine protected area coverage.

To facilitate the achievement of Target 11, the CBD Secretariat developed a two-phase strategy, which includes: 1) renewing partnerships and commitments from partner organizations, developing baseline data for countries in the form of information dossiers, providing capacity development to Parties, and 2) securing the submission of questionnaires, status matrices and national actions (priority actions to be undertaken in the next four years in the form of road maps).

Following the completion of six regional workshops, covering all UN regions except for the Western Europe and Others Group (WEOG), more than 1,400 priority actions addressing all elements of Target 11 have been identified by participants (including **62 actions** aimed at improving coverage of coastal and marine protected areas).



Progress towards achieving this element has shown improvement compared to the midterm assessment carried out for the fourth edition of the *Global Biodiversity Outlook* (2014); for coastal and marine areas within national jurisdiction (0 – 200 nm) the 10% target has already been surpassed.

- Twenty-five countries have submitted quantifiable actions or opportunities to improve protected area coverage of coastal and marine areas, adding **990,507 km^2** to the current 15 million km^2. Eight of these Parties will reach or surpass the 10% target if their actions are implemented as proposed. Twenty-five additional countries have identified priority actions which include the expansion of marine protected areas, with the area being added still to be determined.

- Information on large marine protected areas and marine managed areas (LMPAs) communicated by 6 Parties outside of the workshops will add another **8.9 million km^2** to areas within national jurisdiction.

- A recently announced large MPA in the Ross Sea off the Antarctic coast will add **1.55 million km^2**; together with the 6 other LMPAs and the increase from priority actions and GEF projects, protected area coverage in the whole ocean will increase from 4.3 to 7.4%.

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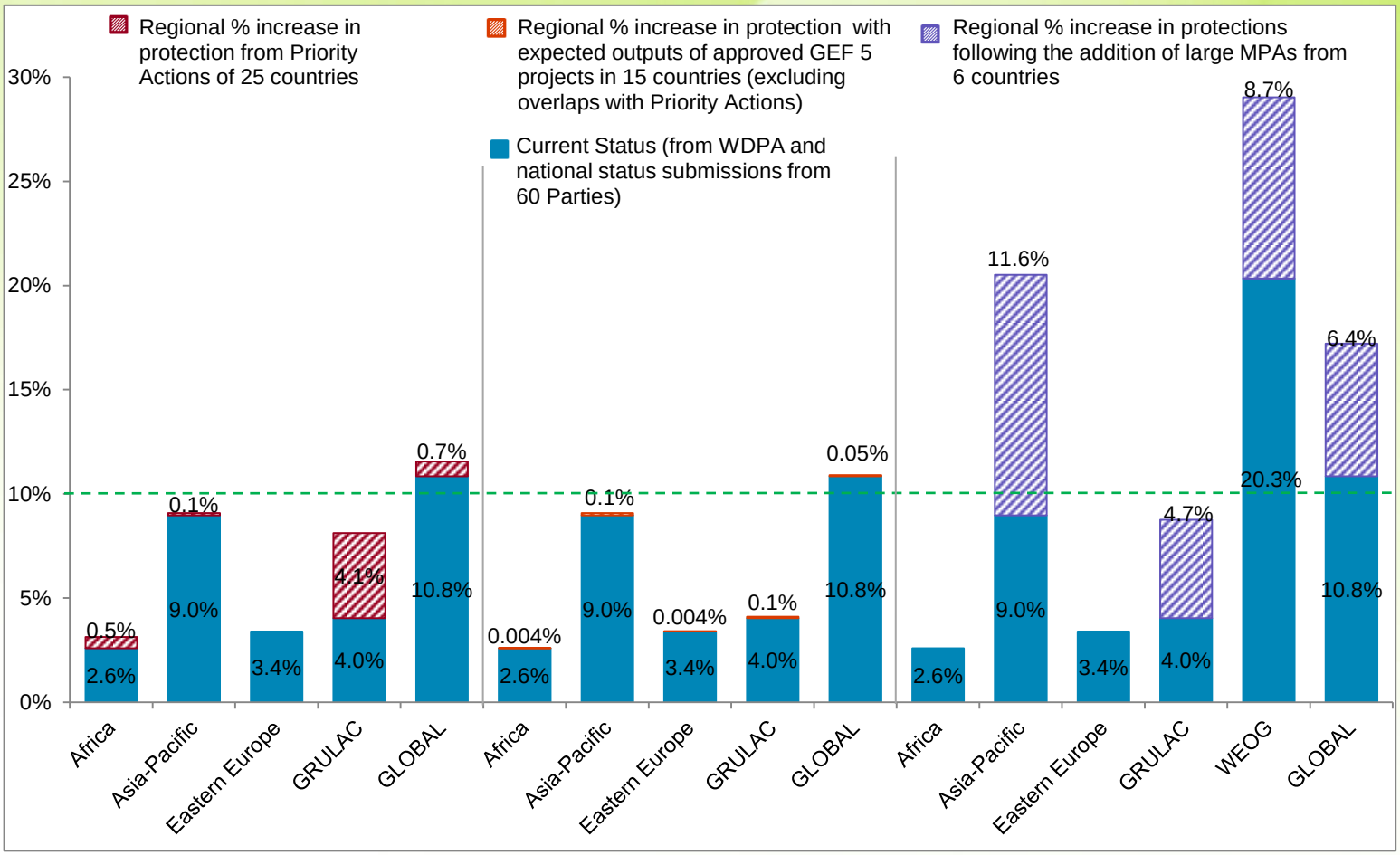
Examples of priority actions

- ✓ India plans to enhance coastal and marine protected area coverage by 5,000 km^2.
- ✓ Mexico aims to successfully create two new marine protected areas (334,933.62 and 11,825.63 km^2 respectively), increasing coverage of marine territories of the country to nearly 11%.
- ✓ Sudan has plans to create 3 marine protected areas, which will cover approximately 2,000 km^2.

Examples of expected outputs of approved GEF-projects

- ✓ Tuvalu: Implementing a Ridge to Reef Approach to Protect Biodiversity and Ecosystem Functions, where existing marine conservation areas in the 10 locations will be expanded to cover 15% of Tuvalu's coastline.
- ✓ Guatemala: Conservation and Sustainable Use of Biodiversity in Coastal and Marine Protected Areas, which will lead to the gazzetting of three new multiple-use MPAs (IUCN Category VI).

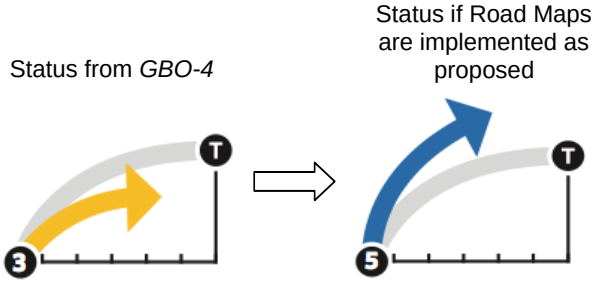
Improvement in the status of the marine quantitative element of Target 11 (for marine areas within national jurisdiction, 0 – 200 nm) over the next four years, if Actions and GEF projects are implemented as planned



This estimation of progress does not incorporate planned protected area expansions from the WEOG region, nor does it include all with maritime borders locally managed marine areas (LMMAs) that may be in operation. As such the outlook may change, as more Parties report on actions being taken to implement this element of the target and a more complete assessment of LMMAs is conducted. Inclusion of GEF 6 projects, and those funded through other bilateral agencies will further improve the outlook for achievement of this element.

With a systematic effort by all, the opportunity exists to further improve the status of this element of the target by 2020.

Target 11 Implementation Status



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Aichi Biodiversity Target 11 – Areas Important for Biodiversity

Areas of particular importance for biodiversity …

Current global status*

Of 12,532 Important Bird and Biodiversity Areas (IBAs), 2,539 are completely covered, 3,230 are 50-98% covered, 2627 are 2-50% covered and 4,136 are not covered by existing protected areas.

Of 585 Alliance for Zero Extinction sites (AZEs), 114 are completely covered, 137 are 50-98% covered, 107 are 2-50% covered and 227 are not covered by existing protected areas.

Of 4,333 other Key Biodiversity Areas (KBAs), 720 are completely covered, 1,058 are 50-98% covered, 907 are 2-50% covered and 1,648 are not covered by existing protected areas.

* As assessed by BirdLife International using the April 2016 WDPA release, for the *Protected Planet Report 2016*.

IBAs, AZEs and other KBAs are networks of sites that are important for the global persistence of biodiversity, which are systematically identified using globally standardized criteria. These sites, collectively termed KBAs (key biodiversity areas), have been treated as "areas of importance for biodiversity" in the language of Target 11.

Further information on these sites is available at:

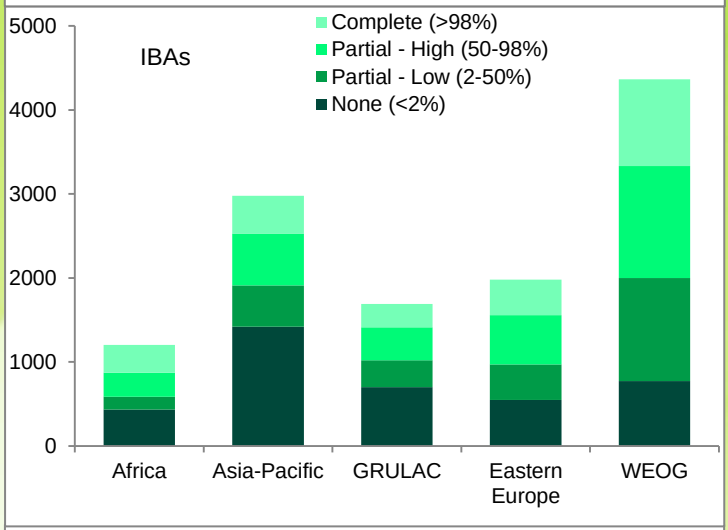
http://datazone.birdlife.org/site/search
www.keybiodiversityareas.org/home
www.ibat-alliance.org/ibat-conservation/login
www.zeroextinction.org/

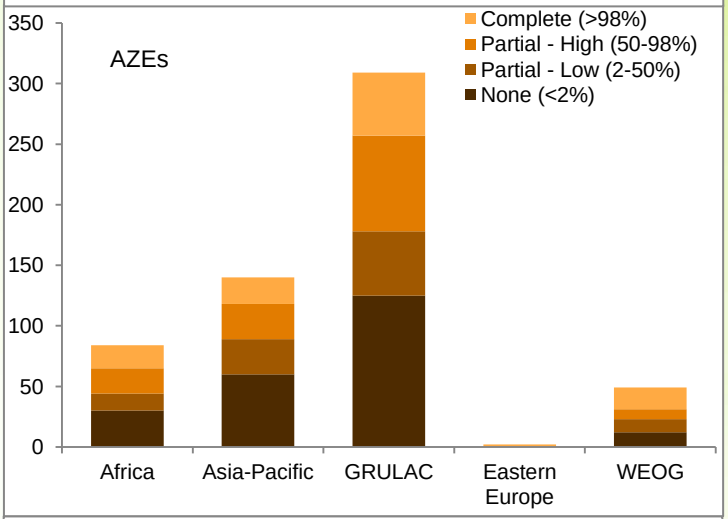
What can be achieved by 2020?

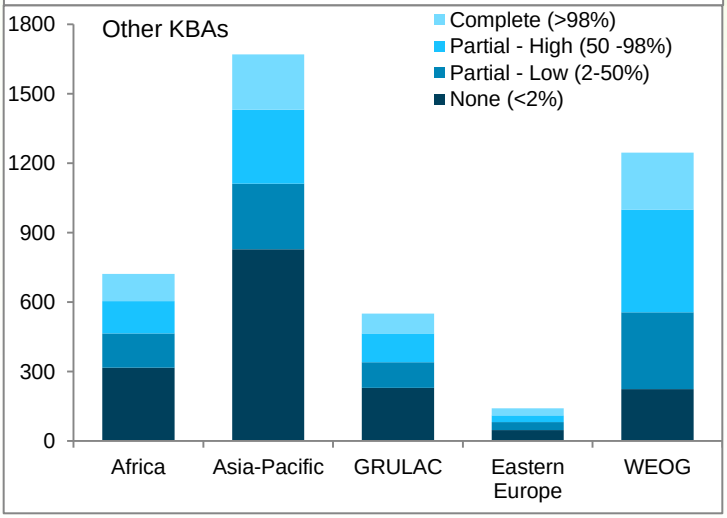
Ensuring that at least half of all IBAs and other KBAs are completely covered and that all sites have at least partial coverage, plus ensuring that all AZEs are completely covered by protected areas and other effective area-based conservation measures.

This will require that at least 3,727 IBAs, 471 AZEs and 1,447 other KBAs are brought to complete coverage, and 4,136 IBAs and 1,648 other KBAs have at least partial coverage.

Number of IBAs, AZEs and other KBAs at different levels of protected area coverage, as assessed by BirdLife International using the April 2016 WDPA release.







To facilitate the achievement of Target 11, the CBD Secretariat developed a two-phase strategy, which includes: 1) renewing partnerships and commitments from partner organizations, developing baseline data for countries in the form of information dossiers, providing capacity development to Parties, and 2) securing the submission of questionnaires, status matrices and national actions (priority actions to be undertaken in the next four years in the form of road maps).

Following completion of six regional workshops, in Africa, Asia-Pacific, Central and Eastern Europe, Latin America and the Caribbean (GRULAC), excluding the Western Europe and Others Group (WEOG), more than 1,400 priority actions addressing all elements of Target 11 have been identified by countries (including **203 actions** to improve the coverage of areas of particular importance for biodiversity and ecosystem services).

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Improvement in the protected area coverage of areas important for biodiversity

Examples of priority actions

✓ Solomon Islands will review the status of existing KBAs, AZEs and IBAs; they plan to target full protection for at least 2 AZEs and partial protection for at least 3 other AZEs.

✓ Montenegro plans to bring unprotected IBAs under protection, either by expanding existing protected areas or by establishing new protected areas.

✓ Colombia plans to protect at least 3 IBAs and 3 AZEs within protected areas; currently 40% of IBAs are not protected, while 25 AZEs are not protected and 17 have only partial protection.

It is estimated that progress towards achieving this element is showing improvement compared to the midterm assessment carried out for the fourth edition of the *Global Biodiversity Outlook* (2014).

- Twenty-four Parties have identified priority actions directed towards improving the protection of IBAs and/or AZEs, with 12 countries providing the specific number of sites where protection would be improved. If actions from these 12 countries are implemented as planned, at least 65 IBAs and 11 AZEs will have improved protection status.

- Parties expanding marine protected areas have: 672 IBAs with a marine component, of which 518 have less than 50% coverage under existing protected areas; 293 other KBAs with a marine component, of which 201 have less than 50% coverage under existing protected areas; and 41 marine AZEs, where 29 are not completely covered by existing protected areas. While Parties expanding terrestrial protected areas have: 3,908 terrestrial IBAs, of which 2,455 have less than 50% coverage under existing protected areas; 1,715 other terrestrial KBAs, of which 1,178 have less than 50% coverage under existing protected areas; and 388 terrestrial AZEs, where 323 are not completely covered by existing protected areas. While planned protected area increases will not be able to cover all of these sites, mapping of the areas being created, with respect to coverage of areas important for biodiversity, will provide a clearer picture regarding progress towards achieving this element of the Target.

- Other effective area-based conservation measures, including Indigenous and Local Community Conserved Areas (ICCAs) and locally managed marine areas (LMMAs), among others, and other national protected area categories not currently contained in the WDPA (like the protected forests or forest reserves in India and the Gazette wetlands in Uganda) may also improve the coverage of IBAs, AZEs or other KBA sites.

KBAs in terrestrial areas protected through GEF

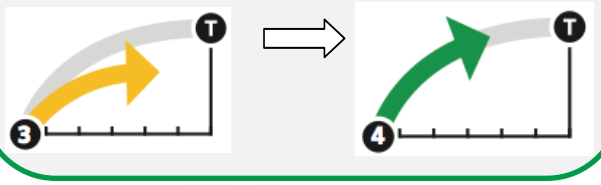
✓ As of 2015, GEF has supported the development of 1,292 terrestrial protected areas (51% of them in tropical biomes) in 119 countries, covering a total area of 2,785,350 km^2; of these terrestrial protected areas, 58% are considered Key Biodiversity Areas.

This estimation of progress does not incorporate planned protected area expansions from the WEOG region, nor does it include a full assessment of the coverage of areas important for biodiversity by all existing ICCAs, LMMAs or other effective area-based conservation measures which may not yet be included in the WDPA. As such, the outlook may change as more Parties report on actions being taken to implement this element of the Target, as well as the quantitative area-based elements, and a systematic mapping of these protected area additions, as well as ICCAs, LMMAs and other national protected area categories not currently listed in the WDPA is completed. Inclusion of GEF 6 projects, and those funded through other bilateral agencies will further improve the outlook for achievement of this element. ***With a considerably more concerted and systematic effort to establish protected areas and OECMs to effectively conserve areas important for biodiversity, it may be possible to achieve this element of the Target by 2020.***

Target 11 Implementation Status

Status from *GBO-4*

Status if Road Maps are implemented as proposed



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Aichi Biodiversity Target 11 – Ecological Representation

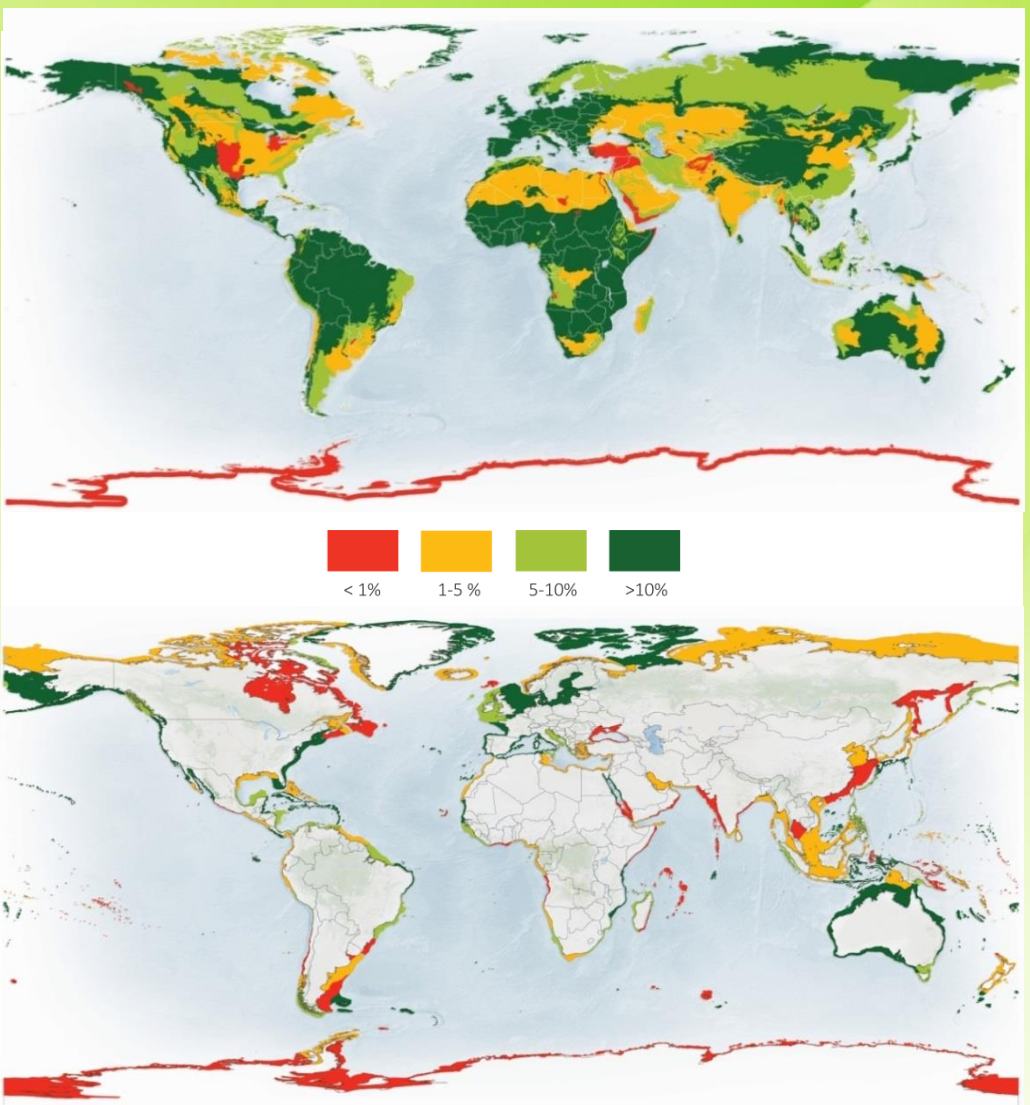
Protected areas are ecologically representative …

Current global status*

Of 821 terrestrial ecoregions (excluding 4 Antarctic ecoregions), 481 have 10% or more coverage under existing protected areas.

Of 232 marine ecoregions, 84 have 10% or more coverage under existing protected areas.

* as per analysis carried out by the European Commission's Joint Research Centre (JRC) based on the April 2016 WDPA release.



Map showing the percent coverage for terrestrial ecoregions (excluding lakes, rock and ice) and marine ecoregions, by protected areas. This was assessed by the European Commission's Joint Research Centre (JRC) using a pre-processed version of April 2016 World Database of Protected Areas (WDPA) release for the *Protected Planet Report 2016.*

What is needed for achievement?

Increased coverage, by protected areas or other effective area-based conservation measures, for **340** terrestrial ecoregions and **148** marine ecoregions, which are currently less than 10% protected.

To facilitate the achievement of Target 11, the CBD Secretariat developed a two-phase strategy, which includes: 1) renewing partnerships and commitments from partner organizations, developing baseline data for countries in the form of information dossiers, providing capacity development to Parties; and 2) securing the submission of questionnaires, status matrices and national actions (priority actions to be undertaken in the next four years in the form of road maps).

Following the completion of six regional workshops, covering all UN regions except for the Western Europe and Others Group (WEOG), more than 1,400 priority actions addressing all elements of Target 11 have been identified by participants (including **172 actions** to improve the ecological representation of protected area systems).

Examples of priority actions

- ✓ In Sierra Leone two terrestrial ecoregions (Western Guinean lowland forests and Guinean forest-savanna mosaic) and one marine ecoregion (Gulf of Guinea West) will be priority sites for further protection, in order to improve the ecological representation of their protected area network.
- ✓ Bangladesh aims to extend the protection of the Sundarbans Mangrove Ecosystem by 4,609 km^2 and the Lower Gangetic Plains Moist Deciduous Forests by 3,000 to 4,000 km^2. The country also aims to formally declare a 1,738 km^2 marine park and a 582 km^2 marine reserve as protected areas, extending the level of protection of the Northern Bay of Bengal ecoregion.

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Improvement in the status of the ecological representation of protected area systems

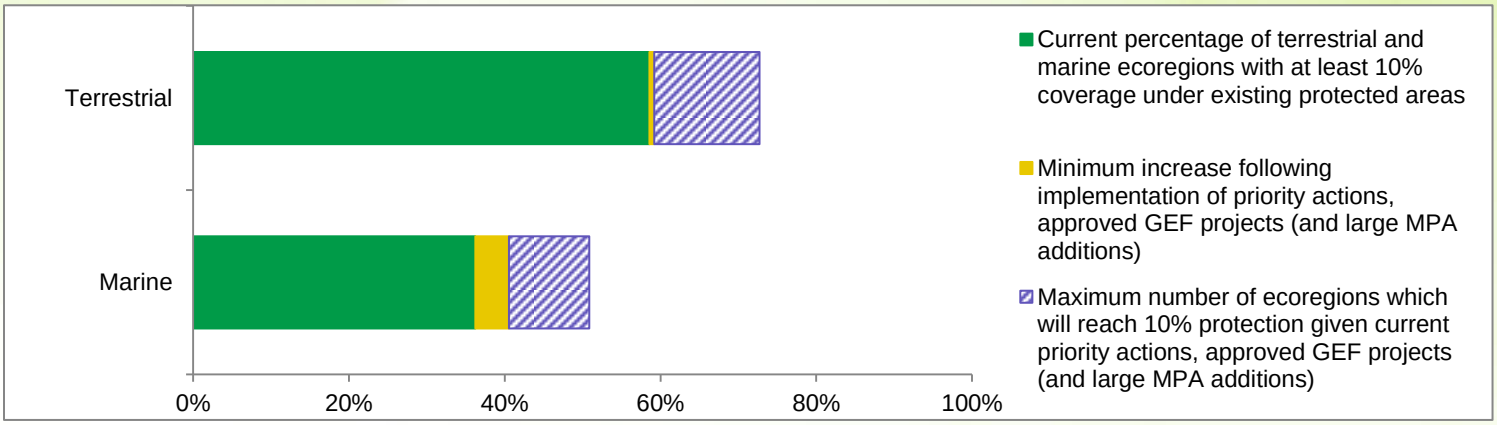
It is estimated that progress towards achieving this element is showing improvement compared to the midterm assessment from the fourth edition of the *Global Biodiversity Outlook* (2014), and that with systematic efforts the element may be achieved by 2020.

- Seventy-four countries have either submitted quantifiable actions or opportunities to improve terrestrial protected area coverage, or have an approved GEF 5 project with a terrestrial protected area expansion component. Given these protected area expansions at least 5, and potentially upwards of 100 terrestrial ecoregions will increase their protected area coverage above 10%. Additionally, 43 other countries have identified priority actions which include the expansion of terrestrial protected areas, with the area being added still to be determined; these additions will further improve the ecological representation for terrestrial protected areas.

- Thirty-eight countries have submitted quantifiable actions or opportunities to improve marine protected area (MPA) coverage, communicated information regarding the creation of large MPAs, or have an approved GEF 5 project with a MPA expansion component. These increases will lead to at least 10, and potentially more than 30 marine ecoregions surpassing 10% protected area coverage. Twenty-five additional countries have identified priority actions including the creation or expansion of MPAs where the area being added still needs to be determined, which will further improve coastal and marine ecological representation.

- Including all existing Indigenous and Local Community Conserved Areas (ICCAs), locally managed marine areas (LMMAs) and other effective area-based conservation measures would further improve the status of ecological representation within the global system of protected and conserved areas.

- There is a need for systematic mapping of all of these protected area additions, as well as those protected and conserved areas which may not currently be assessed within the WDPA, vis-à-vis coverage of terrestrial and marine ecoregions, and areas important for biodiversity and ecosystem services.

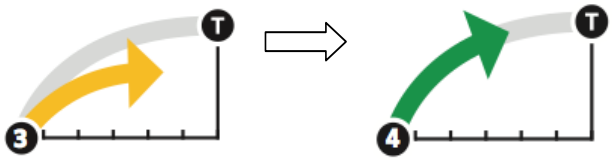


This estimation of progress does not incorporate planned protected area expansions from the WEOG region, nor does it include a full assessment of the ecological representation of existing ICCAs, LMMAs or other effective area-based conservation measures. Inclusion of information from GEF 6 projects, and those funded through other bilateral agencies will improve the outlook for achievement of this element. The outlook will further improve as more Parties report on actions being taken to implement this element of the Target, as well as the quantitative area-based elements, and a systematic mapping of these protected area additions, as well as ICCAs and other national protected area categories that may not currently be listed in the WDPA, is completed. ***With a systematic effort by all, especially with respect to increased mapping of the ecological representation of existing and future protected and conserved areas, the opportunity exists to meet this element of the Target by 2020.***

Target 11 Implementation Status

Status from *GBO-4*

Status if Road Maps are implemented as proposed



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Aichi Biodiversity Target 11 – Management Effectiveness

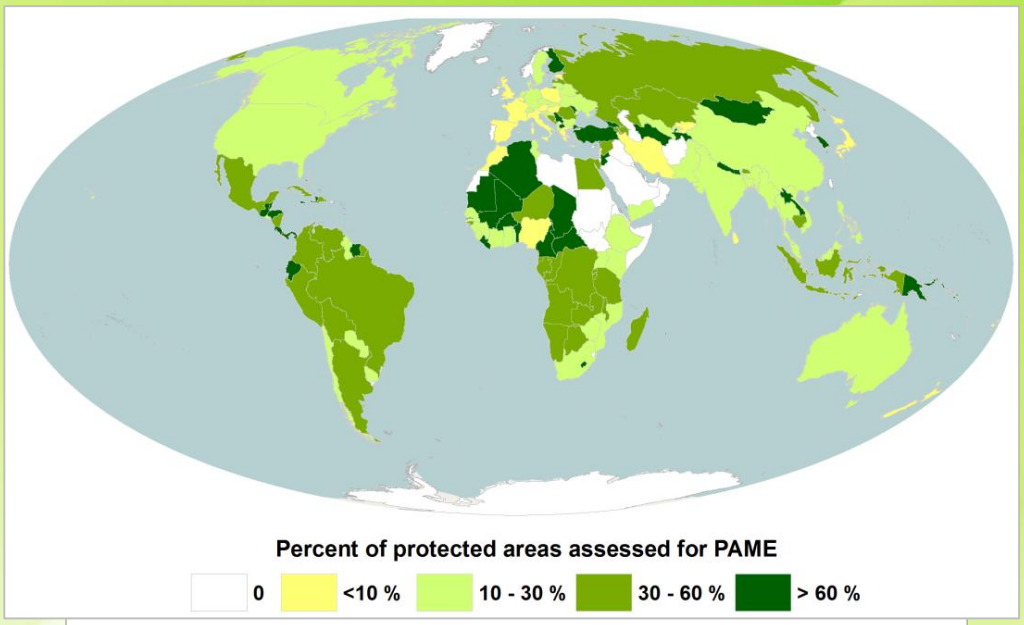
Effectively Managed

Current global status*

Forty-two CBD Parties (or 21.4%) have implemented management effectiveness evaluations in at least 60% of their protected areas.

Average protected area management effectiveness (PAME) scores, for all assessed protected areas, is 0.52.

* as of January 2015 in the Global Database on Protected Areas Management Effectiveness (GD-PAME) reported in Coad L, et al. (2015) Measuring impact of protected area management interventions: current and future use of the Global Database of Protected Area Management Effectiveness. *Phil. Trans. R. Soc. B,* 370 (1681).



National progress towards the 60% Protected Area Management Effectiveness (PAME) assessment target of decision X/31, measured as the percentage of the total area of the protected area network.

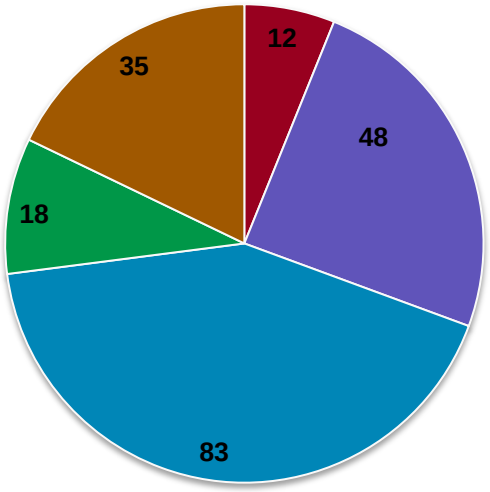
What is needed for achievement?

154 CBD Parties have yet to reach the 60% (by area) assessment target in decision X/31.

Efforts will also be needed to improve the PAME scores of assessed protected areas.

To facilitate achievement of Target 11, the CBD Secretariat developed a two-phase strategy, which includes: 1) renewing partnerships and commitments from partner organizations, developing baseline data for countries in the form of information dossiers, and providing capacity development to Parties; and 2) securing the submission of questionnaires, status matrices and national actions (priority actions to be undertaken in the next five years in the form of road maps).

Number of Parties with different levels of management effectiveness (based on overall average PAME scores*)



- Inadequate (< 0.33)
- Basic, with deficiencies (0.33 - 0.5)
- Basic (0.5 - 0.67)
- Sound (> 0.67)
- No assessments completed

* average against 36 separate indicators of management effectiveness

Following completion of six regional workshops, in Africa, Asia-Pacific, Central and Eastern Europe, Latin America and the Caribbean (GRULAC), excluding the Western Europe and Others Group (WEOG), more than 1,400 priority actions addressing all elements of Target 11 have been identified by countries (including **238 actions** to make protected areas (PAs) more effectively managed).

These include:

- Over 70 actions related to PA management plans
- Over 45 actions involving management effectiveness evaluations
- Over 100 other actions aimed at improving management effectiveness

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Examples of priority actions

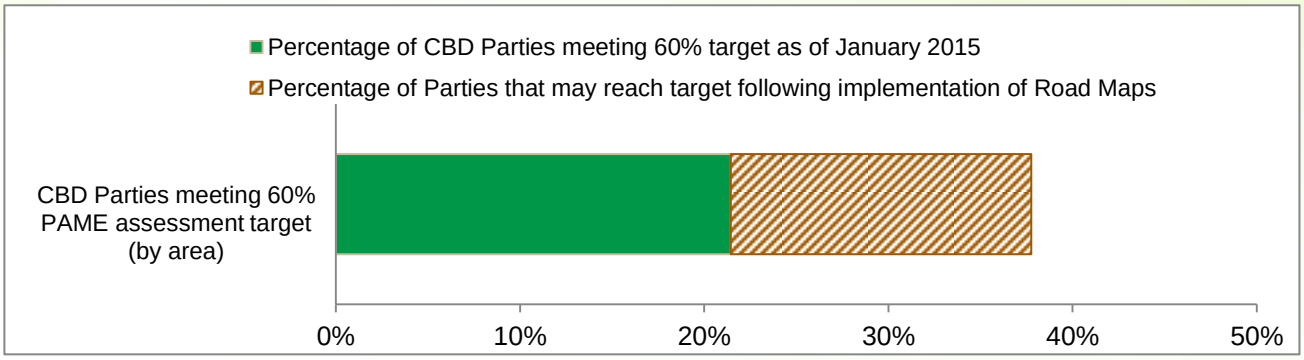
- ✓ Malawi will conduct PAME assessments in another 20% of protected areas (both area and number); as well as implement the results of PAME Tracking Scores done for assessments in 6 protected areas under GEF 5.
- ✓ Republic of Korea will ensure that 70% of terrestrial protected areas and 70% of marine protected areas will be evaluated, up from the current 42% and 20% respectively.
- ✓ Bangladesh has already conducted management effectiveness assessments (MEAs) for 17 PAs. MEAs for the rest of the PA network will be conducted soon; they then plan to conduct MEAs for 30% of PAs every year. As well, they will improve PA management in accordance to the results of MEAs and prepare and approve management plans for each PA.

Examples of management effectiveness (ME) components from the expected outcomes of approved GEF 5 projects

- ✓ Georgia: Increased Management Effectiveness Tracking Tool (METT) scores over baseline by at least 5%.
- ✓ Fiji: Improved ME of existing protected area system, as well as improved ME in 1 new terrestrial and 5 new marine protected areas.
- ✓ Mexico: Improved ME of existing and new protected areas, as measured by METT; Increased ME of 18 key protected areas; and 10 new protected areas (covering 5,600 km^2) meet or exceed their ME targets of 80%.
- ✓ Swaziland: Increasing METT score to at least 60.

It is estimated that progress towards achieving this element is showing improvement compared to the midterm assessment from the fourth edition of the *Global Biodiversity Outlook* (2014).

- ❖ Ninety-three countries have identified priority actions for addressing either the improvement of protected area management or the assessment of protected area management effectiveness (PAME).
- ❖ At least 63 countries have approved GEF 5 projects involving the expansion of protected area networks, which will all include management effectiveness assessments.
  - Many more countries have GEF 5 projects aimed at improving the management of existing protected areas.
- ❖ The Integrated Management Effectiveness Tool (IMET), developed in the frame of the EU funded Biodiversity and Protected Areas Management (BIOPAMA) programme, has so far been applied to support and strengthen management effectiveness in over 50 PAs in Africa and Bolivia; it is expected that 100 PAs will complete IMET assessments by the end of 2016, while further IMET assessments are planned for the next phase of the BIOPAMA programme commencing in 2017.



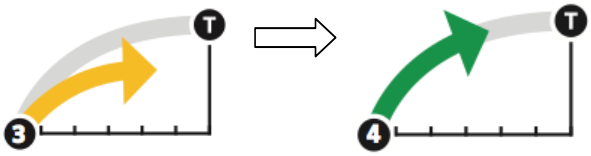
This estimation of progress does not include actions for improving PA management effectiveness from the WEOG region; in the GD-PAME, there is a lack of PAME assessments from North America and Western Europe, where the assessments may be incorporated into existing PA planning and monitoring schemes. As more Parties report on actions being taken to implement this element of the Target, a more encouraging picture will emerge. Additionally, a more systematic assessment of all GEF 5 projects with a protected area management component, as well as those projects funded through other bilateral agencies, will further improve the outlook for achievement of this element.

A systematic and concerted effort by all will be required to meet this element of the target by 2020.

Target 11 Implementation Status

Status from *GBO-4*

Status if Road Maps are implemented as proposed



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Aichi Biodiversity Target 11 – Equitable Management

Equitably Managed

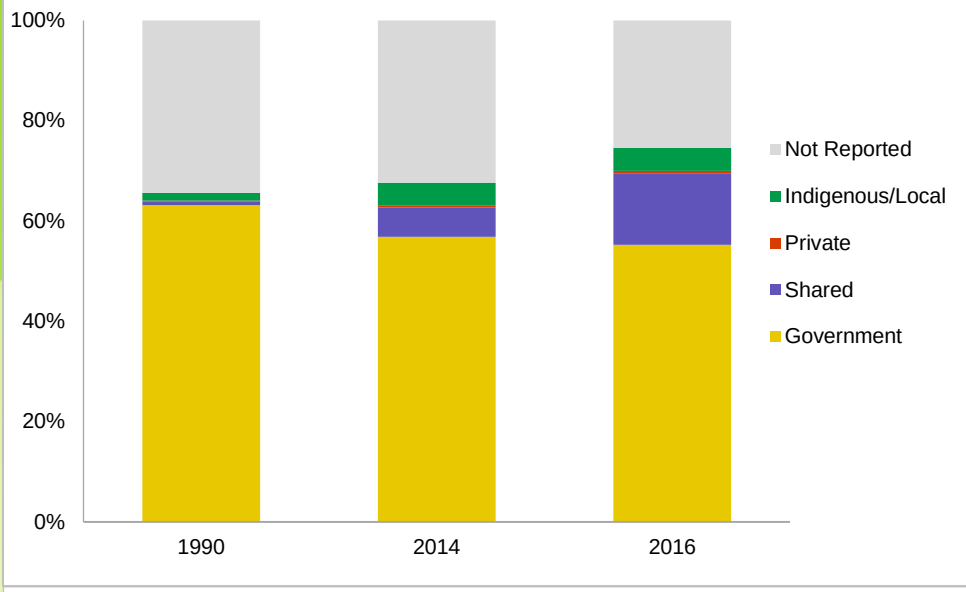
Current global status

No agreed or standardised methodology yet to track progress.

Social and governance assessments being piloted to help advance protected area equity and effectiveness.

As of 2016, 90% of WDPA entries report governance type.

Governance arrangements in protected area systems are increasingly inclusive of communities and private sector actors.



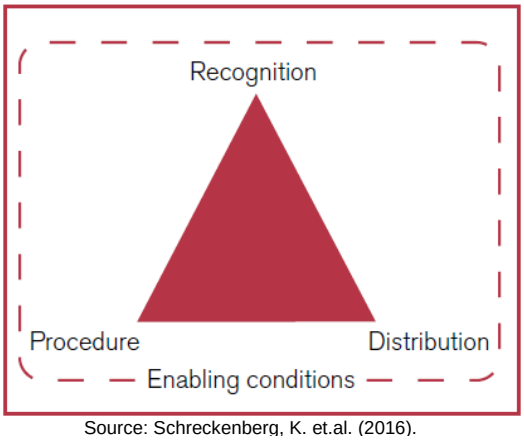
Changes in the percentage of area covered by different governance types for protected areas in the World Database on Protected Areas (WDPA) from 1990 to 2016; data for 1990 and 2014 from the *Protected Planet Report 2014,* and data for 2016 from the August release of the WDPA.

What is needed for achievement?

Mapping of all governance types for all protected areas.

Increasing the number of co-managed, privately managed and Indigenous and local community managed protected areas.

Governance and social assessments carried out at protected area system and site levels, to establish baselines and identify relevant actions.



Source: Schreckenberg, K. et.al. (2016).

To facilitate achievement of Target 11, the CBD Secretariat developed a two-phase strategy, which includes: 1) renewing partnerships and commitments from partner organizations, developing baseline data for countries in the form of information dossiers, and providing capacity development to Parties; and 2) securing the submission of questionnaires, status matrices and national actions (priority actions to be undertaken in the next five years in the form of road maps).

Following completion of six regional workshops, in Africa, Asia-Pacific, Central and Eastern Europe, Latin America and the Caribbean (GRULAC), excluding the Western Europe and Others Group (WEOG), more than 1,400 priority actions addressing all elements of Target 11 have been identified by countries (including **163 actions** to make protected areas more equitably managed).

These include:

- Officially recognizing different governance types in a protected area system
- Improving legislation on public participation
- Establishing consultation and co-management fora
- Capacity building for co-management
- Enhancing benefit sharing mechanisms
- Assessing and evaluating governance of protected areas

Equity is generally assessed through three interlinked aspects, or dimensions: recognition, procedure, and distribution; where “recognition” is the acknowledgement of and respect for the legitimate rights, values, interests and priorities of individuals and communities; “procedure” refers to inclusiveness of rule and decision making; finally, “distribution” implies that costs and benefits resulting from the implementation and management of protected areas must be equitably shared amongst relevant actors. These are set in and shaped by the prevailing enabling conditions.

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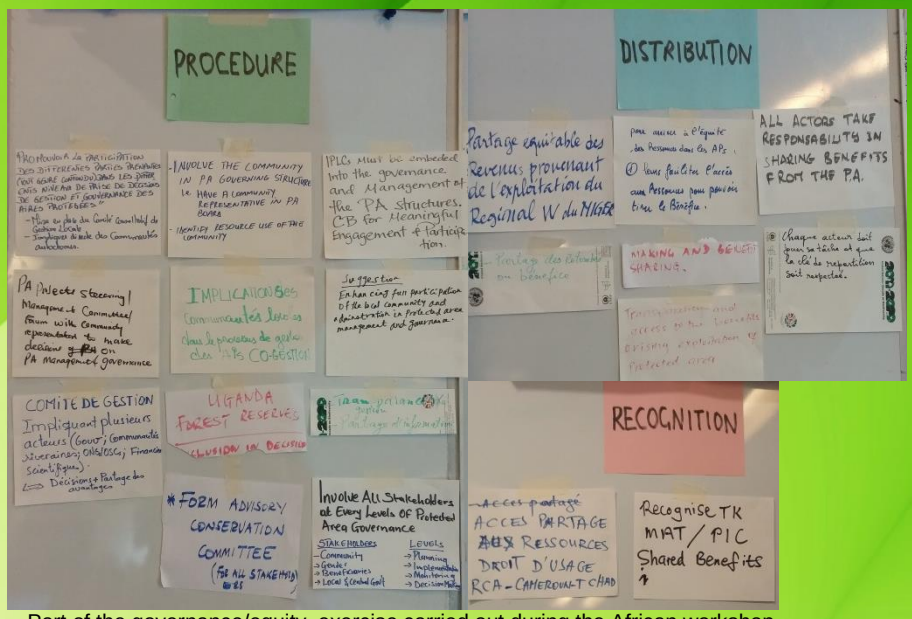
Examples of priority actions

- ✓ Costa Rica will recognise different types of governance for its forest protected areas (PAs). By 2020, effective governance mechanisms will be legally established and functioning for 13 of those areas.
- ✓ Bangladesh will undertake capacity building for communities to enhance sharing of management responsibilities.
- ✓ Central African Republic is planning to strengthen PA governance by involving all stakeholders and by integrating benefit sharing in wildlife legislation.
- ✓ Lebanon will legislate recognition of different PA governance types including community conservation areas, and for the establishment of PAs on private lands.



Part of the governance/equity exercise carried out during the African workshop.

Equity and effectiveness of protected areas

Recent global studies indicate that the empowerment of local people and the reduction of inequalities in the distribution of costs and benefits increase the likelihood of effective conservation. Effectiveness and equity are thus interdependent.

A number of tools and methodologies are now available to assess progress and plan for action to enhance governance, participation, equity and benefit sharing in line with the Programme of Work on Protected Areas (PoWPA) Element 2, such as:

- ❖ Social Assessment of Protected Areas (SAPA) to assess costs, benefits and social impacts arising from the establishment and maintenance of protected areas and their equitable distribution
- ❖ IUCN Protected Area Governance Guidelines to assess the potentials for broadening the prevailing set of protected area governance types in a PA system and to assess and enhance governance quality
- ❖ The newly proposed Equity Framework for Protected Areas to support rights-holders and stakeholders in bringing the three dimensions of equity to bear in various assessments and evaluations.

These and other methodologies provide guidance to Parties to identify actions and enhance implementation of PoWPA Element 2 and to achieve Aichi 11 in its “equitably managed” element.

1. Franks, P. and Small, R. (2016) Social Assessment for Protected Areas (SAPA). Methodology Manual for SAPA Facilitators. IIED, London

2. Borrini-Feyerabend, G., et al. (2013). Governance of Protected Areas: From understanding to action. Best Practice Protected Area Guidelines Series No. 20, Gland, Switzerland: IUCN

3. Schreckenberg, K. et.al. (2016). Unpacking equity for protected area conservation. PARKS Journal. Vol.22.2.

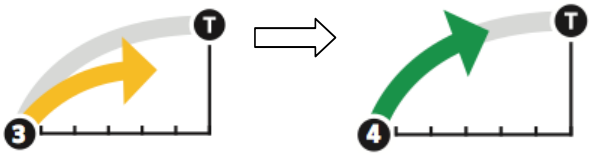
This estimation of progress does not include actions for improving PA equity from the WEOG region. As more Parties report on actions being taken to implement this element of the Target, a more encouraging picture will emerge. An assessment of the potential contribution of GEF-5 projects, or projects funded through other bilateral agencies, related to equitable management of PAs, will further improve the outlook for achievement of this element. As more countries begin to implement tools and methodologies for the assessment of PA governance, equity and benefit sharing (like SAPA, or others) a clearer picture regarding progress towards achieving this element will emerge.

A systematic and concerted effort by all will be required to meet this element of the target by 2020.

Target 11 Implementation Status

Status from *GBO-4*

Status if Road Maps are implemented as proposed



Contribution of Aichi Biodiversity Target 11 National Priority Actions to Other Aichi Biodiversity Targets

— To provide evidence-based cases of how enhanced-implementation of priority actions can be valuable to other Aichi Biodiversity Targets

To provide convincing inspirations for all parties about how enhanced-implementation of Target 11 can generate multiple values, we collected existing cases that can illustrate the linkage between Target 11 priority actions in national roadmaps and other Aichi Biodiversity Targets. Although here only ten of other Aichi Targets were selected to showcase the contribution, this doesn't mean the rest are irrelevant, as the actions to achieve each Aichi Biodiversity Target will have, direct or indirect, influences on others.

PRIORITY ACTIONS Identified by each country in the form of roadmaps in six Regional Capacity Building Workshops. Details in: UNEP/CBD/COP/13 /inf/17

Hopefully the supporting evidences collected from various open publications can enhance understanding on the added value of achieving Target 11 and serve as imitable cases on what can be done or how to do it better. We believe, in a modest faith, that with successful implementation of the priority actions, it is highly possible that the current target element status can reach a higher stage in the next four years.

TARGET 11 ACTIONS CAN MAKE A CHANGE

Over 100 Parties in six workshops have identified:

- **184 actions to improve terrestrial and inland water areas coverage by protected areas**
- **64 actions to improve coastal and marine areas coverage by protected areas**
- **169 actions to make more protected areas ecological representative**
- **198 actions to enhance areas of particular importance for biodiversity and ecosystem services**
- **234 actions to make protected areas effectively managed**
- **159 actions to make protected areas equitably managed**
- **166 actions to create better connected systems of protected areas**
- **83 actions to integrate protected areas into wider landscape and seascape**
- **152 actions to support other effective area-based conservation measures**

The Nebo Property in Canada

The Nature Conservancy of Canada (NCC) bought the private land of Nebo Property, which is a biologically diverse place west of Prince Albert. NCC announced that the acquisition of Nebo will help protect habitat for more than 10 species at risk

Santa Maria Bay in Mexico

An **integrated management** plan has been announced to safeguard local fisheries, aquaculture and agriculture in Santa Maria Bay of Mexico

Budongo Forest Reserve in Uganda

Studies showed that **selective logging approaches in the Budongo Forest Reserve** have sucessfully prevent the transformation from mixed forest to climate forest

The "Growing with the Sea" Project in Germany

WWF and the federal state had worked together to identify opportunities and feasible actions in **conserving the biodiversity-rich habitat**s in Wadden Sea. Local ecosystem resilience had been significantly enhanced with the initiation of Wadden Sea Strategy 2010.

Invasive Alien Species Control in South Africa

The Kruger National Park has developed efficient alien species management plan, including distribution tracking and activity monitoring, to safeguard local ecosystem

The Dadia Forest Reserve in Greece

The Dadia Forest Reserve achieved successful ecotourism by **creating accesess for multi-stakeholders in management**. Women were especially provided with a wider social role, and associated benefits in terms of exchange of ideas, further learning and the ability to influence the affaires of the community

The Great Barrier Reef in Australia

Studies showed that, in the Great Barrier Reef, the **coral coverage was significantly higher while the coral-eating starfish outbreak frequency was significantly lower within the no-take zone, comparing to that of the open zones**

The Sierra de Manantlan Biosphere Reserve in Mexico

The Sierra de Manantlan Biosphere Reserve was established in 1988 to perserve traditional agricultural system, with **a special focus on two endangered maize crop relative species**- *Zea perennis* and *Z.diploperennis*

The Giant Panda Protection Network in China

The Chinese government has **established a giant panda protection network covering 62 nature reserves**, which has successfully conserved endemic panda species together with other animals like Golden monkey

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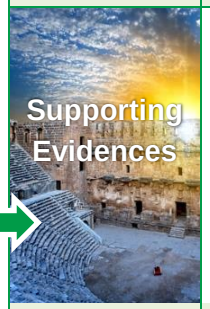
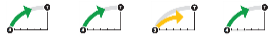
german cooperation

Convention on Biological Diversity · UNEP · WCMC · IUCN · WCPA · BirdLife International · UNDP

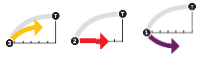
Examples of Target 11 Contribution

To illustrate the contribution of Target 11 to other Aichi Biodiversity Targets in a practical manner, we use supportive evidence to identify solid linkages between elements of each target. Theoretical basis from academic literatures is identified so as to consolidate the linkages. Current status of each target is from Global Biodiversity Outlook 4. Projected status of target elements are predictions indicating that, once enhancing the implementation of Target 11 priority actions, the likelihood of potential improvement of other Aichi Targets can be significantly increased.

GENETIC DIVERSITY

Basis of Contribution	**Enhancing protected areas with particular ecological functions- like safeguarding endangered species or providing food for human- can directly contribute to maintaining the genetic diversity of the area.**	**The gene exchanges of species happen not only within protected areas, but also within other geographical scales like certain untitled conservation area or larger ecoregion. The effective management of other conservation scale is critical for safeguarding genetic diversity in general.**
	**Case 1- SE Anatolia Biodiversity Research Project in Turkey** Being less known to the public, the Anatolia region is a biodiversity-rich area with important ecosystem value in Turkey. In 2004, WWF Turkey announced a SE Anatolia Biodiversity Research Project aimed at identifying the biodiversity hot spots within the area. After two-year's work, WWF listed 30 recommended areas that are worth priority investigation and conservation together with suggestions on specific actions. Through these actions, many species that are important for genetic diversity, like volcanic steppe plants and *Triticum boeoticum* (wild einkorn) were successfully protected	**Case 2- The Sierra de Manantlan Biosphere Reserve in Mexico** In the 1970s two endangered maize crop wild relative species - *Zea perennis* and *Z. diploperennis* - were discovered in the Mexico's Sierra Madre del Sur. To preserve the important species as well as traditional agricultural systems and cultivars, in 1988, the Sierra de Manantlan Biosphere Reserve was established by Presidential decree, under the auspices of the Jalisco government. It was also recognized by UNESCO's Man and the Biosphere Programme. The existence of *Z. perennis* and *Z. diploperennis* is largely resulted from the rational traditional agricultural practices like slash-and-burn cultivation and cattle-ranching. It has been planned that the coamil system within the reserve will be fully remained so that the two important species can continue their survival.
Target 11 Actions	**Enhance protection of areas of particular importance for biodiversity and ecosystem services**	**Improve ecological representation; Manage effectively; Support other effective area-based conservation measures**
Status	**GBO4:**  **Projected Status as per action:** 	

HABITATS

Basis of Contribution	**Effectively-managed protected areas can largely contribute to reducing the risks of habitat loss, degradation and fragmentation**	**Identifying areas of particular importance for biodiversity and ecosystem services can draw special attention to habitats lacking necessary protection, which will contribute to the achievement of Target 5.**	**A well connected PA system emphasize the importance of landscape connectivity, which, once protected and enhanced, can prevent and offset the impact of habitat loss and fragmentation on biodiversity conservation**	**Many area-based conservation measures have showed an excellent effectiveness in habitat protection. Actions stress the importance of such measures will positively support Target 5**
	**Example** Studies examined the effectiveness of protected areas (PAs) in retaining habitat cover, founding that there are significantly less habitat loss and lower carbon loss inside PAs. 7 out of 8 studies found satisfying results of specific PA management plan in reducing deforestation. Two of them found an increase in forest cover after the implementation of tree planting projects. Increased funding and staffs are also found important in preventing deforestation.	**Case 1- The Nebo Property in Canada** The Nature Conservancy of Canada (NCC) bought the 178-hectare land of Nebo Property, which is a biologically diverse place west of Prince Albert. The mixed wood forest, wetlands and prairie grasslands come together as prime habitat for species at risk, including the little Brown Bat, Northern Long-Eared Bat, Olive-Sided Flycatcher, Canada warbler and more. NCC announced that the acquisition of Nebo will help protect habitat for more than 10 species at risk.	**Case 2- The Bozeman Pass Wildlife Corridor in the North Rockies, the U.S.** American Wildlands and their partners built the Bozeman Pass Wildlife Corridor located about 40 miles north of Yellowstone National Park between two towns. They compiled various remote sensing data in order to monitor wildlife activities within the corridor. Different management approaches, including conservation easement and county zoning restrictions were applied to the land to stop further negative intervention. With these approaches, wildlife habitats in or between PAs are protected from further fragmentation.	**Case 3- Other Effective Area-based Conservation Measures in Canada** There are many private land protection programs in Canada, including the Ontario Eastern Habitat Joint Venture and Nature Conservancy of Canada Nature Preserves. With conservation as their initial objective, these area-based programs contribute significantly in enhancing PA connectivity, increasing ecosystems resilience and preventing habitat loss
Target 11 Actions	**Improve terrestrial and inland water areas coverage by protected areas; Manage effectively**	**Enhance protection of areas of particular importance for biodiversity and ecosystem services**	**Create well connected systems of protected areas**	**Support other effective area-based conservation measures**
Status	**GBO4:**  **Projected Status as per action:** 			

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AICHI BIODIVERSITY TARGET 11 – PROTECTED AREAS: MULTIPLE BENEFITS AND NATURAL SOLUTIONS FOR GLOBAL CHALLENGES

The Strategic Plan for Biodiversity 2011-2020 includes: 5 Goals, 20 Aichi Biodiversity Targets

Conservation, Sustainable use and Access and fair and Equitable Sharing of Benefits arising from the utilization of Genetic Resources:

Protected Areas in the Strategic Plan:

Aichi Biodiversity Target 11: Terrestrial and Marine;

Aichi Biodiversity Target 12: Threatened Species

Billions of People depend on Biodiversity:

To alleviate poverty, biodiversity conservation is critical. 80% of biodiversity loss has a direct impact on the well-being of 2.4 billion people living on less than $2 per day; and protecting endangered species helps reduce poverty.

Two of the most important environment and sustainable development commitments

LINKS BETWEEN AICHI BIODIVERSITY TARGET 11 AND THE SUSTAINABLE DEVELOPEMENT GOALS (SDGs)

- ✓ Biodiversity is the foundation of ecosystem services to which human survival and well-being is intimately linked and absolutely depends on, and protected areas are the cornerstones for biodiversity conservation.
- ✓ Already established direct links between the SDGs and Aichi Biodiversity Target 11: SDGs Targets 14 and 15, and to some extent 6 and 13.
- ✓ A more promising picture of links between the SDGs and Aichi Biodiversity Target 11 emerged when the National Priority Actions on protected areas developed by the CBD Parties were linked to the Targets of the SDGs.
- ✓ Effective implementation of the National Priority Actions will help speed up achievement of Aichi Biodiversity Target 11 and contribute directly and indirectly to numerous targets of the SDGs. This is also supported by evidence from the literature.
- ✓ Other identified direct links between Aichi Biodiversity Target 11 and SDGs Targets (e.g. 1.5, 2.4, 2.5, 8.9, 9.4, 11.4 and 12.2), and indirect links (e.g. 10.1, 16.6-16.8, 3.4, 3.9, and 17.6-17.8).

Transforming our World: 2030 Agenda Sustainable Development Goals (SDGs) includes:
17 Goals & 169 Targets

Address the most important social, economic, environmental and governance challenges of our time.

End Poverty;
Protect the Planet**;**
Ensure Prosperity for all.

Protected Areas are addressed in:
SDGs 14 and 15

Billions of People depend on Biodiversity:

In some Asian and African countries, 80% of the population depend on traditional medicines for primary health care. Over 50% of synthetic medicines originate from natural sources.

IUCN World Conservation Congress - Hawai'i Commitment in September 2016: "***Connected systems of protected areas, whether on land or sea, when effectively managed and governed, provide sanctuary for biodiversity and generate an extraordinary range of benefits for people. Ecosystem Services from these protected areas contribute to human health and wellbeing.***"

Protected Areas represent an essential strategy for:

- Preservation of natural resources;
- Adaptation and resilience of communities to changing socio-economic and climatic conditions, and sustainable development of nations, including poverty eradication; and
- The survival and well-being of society during the current and future generations.

They are applied for centuries to conserve nature and cultural and spiritual resources by indigenous peoples and local communities, government and other organizations.

Protected areas are a proven, vital, and cost-effective nature-based solution to deal with complex and pressing global challenges, including water quality and provision (e.g. they are the primary source of drinking water for over a third of the world's largest cities), food security, human health and well-being, and climate change mitigation (e.g. through carbon sequestration), disaster-risk reduction, control of disease outbreak, support to nutrient cycling, as well as climate change adaptation and resilience (e.g. by buffering impacts of climate change and serving as risk management tools).

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THE CBD SECRETARIAT TWO-PHASE STRATEGY TO FACILITATE THE ACHIEVEMENT OF AICHI BIODIVERSITY TARGET 11

THE TWO-PHASE STRATEGY

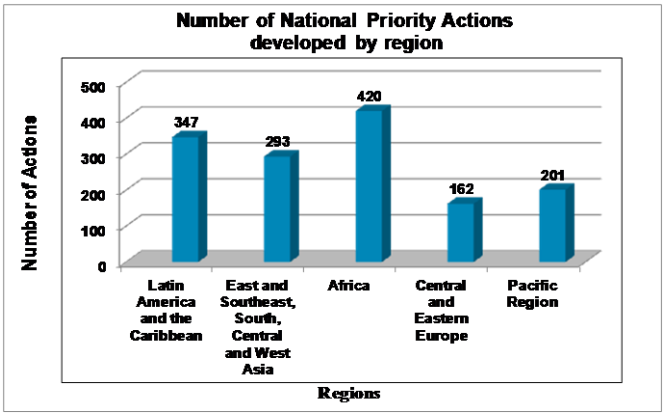
- **Phase I: 2015-2016**
  - Renewing partnerships and commitments with partners;
  - Using baseline data/information dossiers prepared for each country; and numerous communications with partners and country representatives, the CBD Secretariat held:

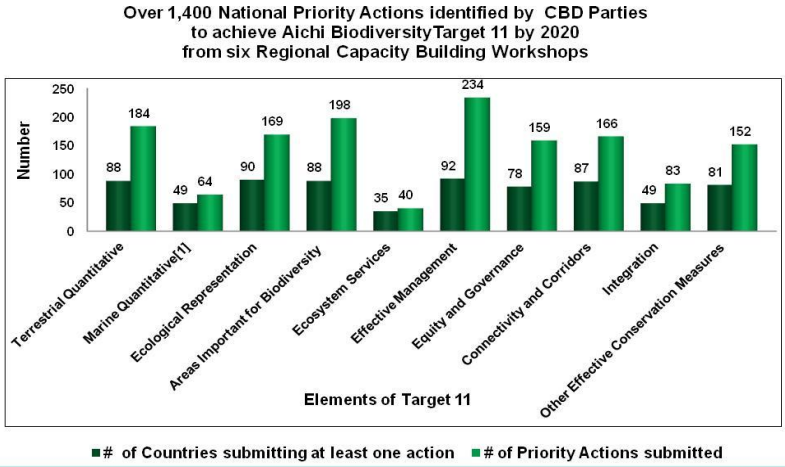
    Six regional capacity building workshops

    Results:
    Status, Gaps, Opportunities Matrix; National Priority Actions (Road maps) on protected areas developed by over 100 CBD Parties.

- **Phase II: 2017-2018**
  - Support to CBD Parties to implement the National Priority Actions to achieve Aichi BiodiversityTarget 11 by 2020.

Following the six regional capacity building workshops organized by the Secretariat, CBD Parties identified over 1,400 National Priority Actions to undertake over the next four years in order to achieve Aichi BiodiversityTarget 11 by 2020.

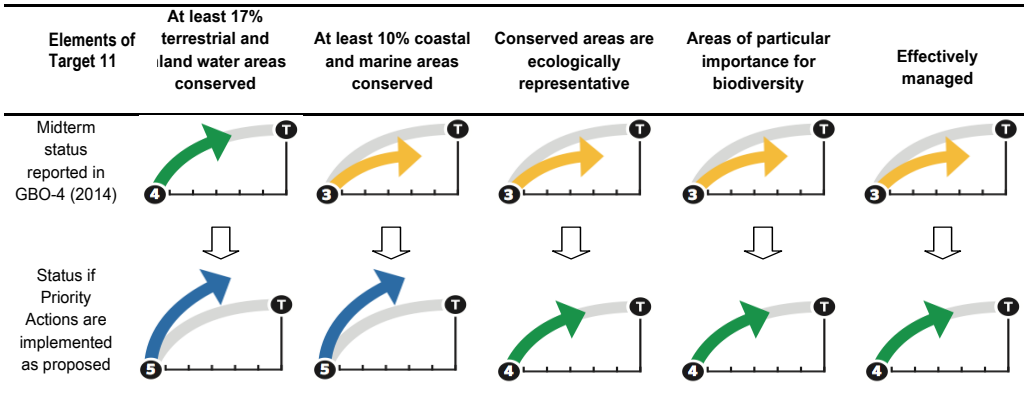




Effectively managed protected areas, with the appropriate governance and equity measures,connectivity and corridors,ecological representation, regional cooperation for transboundary conservation or other effective area-based conservation measures, as appropriate, well integrated into wider land- and seascapes and sectors, can help overcome social, economic and envrionmental challenges.

Concerted efforts and dedication to implement the identified National Priority Actions on protected areas by the CBD Parties will help accelerate progress in most of the elements of Aichi Biodiversity Target 11 and achieve this target by 2020.

IMPLEMENTATION OF THE NATIONAL PRIOTITY ACTIONS ON PROTECTED AREAS WILL ACCELARATE PROGRESS IN AT LEAST FIVE OF THE ELEMENTS OF AICHI BIODIVERSITY TARGET 11



This implementation will help achieve Aichi Biodiversity Target 11 and contribute to: other Aichi Biodiversity Targets, numerous Targets of the SDGs, climate change adaptation and resilience, Article 5.1 of the Paris Agreement, synergistic implementation of the requirements of other MEAs, including UNESCO-MAB, UNESCO-WH, the RAMSAR Convention and the Convention on Conservation of Migratory Species of Wild Animals (CMS).

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Aichi Biodiversity Target 11 Contributes to SDGs 1, 3, 4, 5, and 8

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to livelihoods, health and well-being, eradication of poverty, provision of employment and income, gender equality, as well as opportunities for education, among others.

Examples of National Priority Actions

- **Montenegro**: Developing a strategy to optimize benefits for local communities from the establishment and management of protected areas; improvement of local livelihoods in protected areas.
- **Ethiopia**: Integration of benefits arising from protected areas into poverty alleviation and overall national development plans.
- **Nepal**: Intervention on gender and social inclusion.
- **Burkina Faso**: Creation of green jobs and income generating activities for the poorest especially women.
- **Solomon Island**: Conduct socio-economic assessment for protected areas. What benefits did communities derive from them? Governance and Social Assessments of protected areas.

Effectively managed terrestrial protected areas and marine protected areas, with appropriate institutional, governance and equity framework, well mainstreamed and integrated into poverty eradication and gender equality strategies and programs in particular, and other sectors (production, health), in general, can help substantially reduce poverty, enhance good health and well-being, gender equality, and opportunities for generating income. Evidence indicates that the world's richest and most diverse habitats are found in places where poverty is also a real and pressing issue, and where a large number of people live. Natural aesthetic beauty is also found to be soothing to people, stimulates both the senses and the mind improving mental cognition and performance, memory retention (up to 20%) and concentration. Hence, achieving Aichi Biodiversity Target 11 can contribute towards achieving targets of SDGs 1, 3, 4, 5 and 8.

Poverty Eradication, Livelihoods, Good Health and Well-Being, Decent Work, Economic Growth, Quality Education, Gender Equality

Key Elements of Target 11 and Priority Actions

Effective Management: 234 actions by 92 Parties
Equity and governance: 159 actions by 78 Parties
Integration: 83 actions by 49 Parties
Connectivity/ corridors: 166 actions by 87 Parties
Areas Important for Biodiversity198 by 88 Parties
Ecosystem Services: 40 actions by 35 Parties

Examples from the Literature

Protected areas provide opportunities for rural entrepreneurship. The management of protected areas generates direct and indirect employment for both men and women in the areas of conservation, revitalization, monitoring, education and maintenance.

About 2.5 million locals and tourists use and enjoy the Wet Tropics World Heritage Area in Queensland every year. The area offers a treasure trove of genetic diversity and a wonderful resource for research, education and art.

A study in Indonesia valued mangroves at US$600 per household per year based on their ability to control erosion.

In some Asian and African countries, 80% of the population depends on traditional medicines for primary health care. Over half of synthetic medicines originate from natural sources including drugs like aspirin, digitalis and quinine.

Bio-prospecting in protected areas has already provided compounds that are being used, or are in the process of development, for combating high blood pressure, cancer, leukemia, HIV, enlarged prostate, malaria, and anti-bacterial and antifungal treatments.

Natural settings lower stress.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDGs

Directly to: SDGs 1.5; 8.9.
Indirect to: SDGs 1.1-1.4; 1.a and 1.b; 3.4; 3.9 and 3.d; 4.4; 4.5 and 4.7; 5.1; 5.5; 5.a and 5.c; 8.3 to 8.5.

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Aichi Biodiversity Target 11 Contributes to SDGs 2 and 12

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to food security and sustainable production and consumption.

Examples of National Priority Actions

- **Colombia**: Adoption of sectoral plans in critical sectors (agriculture, mining etc) to reduce their pressure on forests and biodiversity. Also restore ecosystems and reduce emissions.
- **Vanuatu**: Continue to support the agriculture with best practices guidance and techniques and protects biodiversity and water catchment areas management.
- Iraq: Achieve higher coordination among governments, relevant agencies and indigenous people.
- **DPR of Korea**: Construction of a Community-based Protected Area has been successfully implemented, integrating agriculture and sustainable development within local biodiversity conservation and community-based reserve management through habitat restoration of the red-crowned crane.
- **Islamic Republic of Iran**: Establish sustainable use programs

Food Security, End Hunger and Responsible Production and Consumption

Achieving food security for all is intrinsically linked to the maintenance of biodiversity. Terrestrial and marine protected areas can contribute substantially to ending hunger and to sustainable production and consumption where there is integration into wider land- and seascapes, and sectors (production (e.g. agriculture, fisheries, forestry) and consumption). Encouraging Ecosystem Based Approaches; in-situ and ex-situ conservations; accounting for gender perspectives, ensuring appropriate governance and equity measures (e.g. enhancing access and benefit-sharing mechanisms; appropriate use of traditional knowledge, participation of women and Indigenous Peoples and Local Communities) including in decision making processes would be important. Strategic zoning and protection, synergy of activities with measures to mitigate climate change, and land degradation can enhance benefits to society.

Key Elements of Target 11 and Priority Actions

Effective Management: 234 actions, 92 Parties
Equity and governance: 159 actions by 78 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Other area based conservation measures: 152 actions by 81 Parties

Examples from the Literature

The biodiversity of terrestrial and aquatic ecosystems has provided food, including fish, plants, seeds, honey, fruits, mushrooms and insects as important components of the diets of indigenous peoples and local communities for thousands of years.

Food production depends largely on biodiversity and the ecosystem services that it underpins. About 100,000 species of insects, as well as birds and mammals, pollinate more than two-thirds of food plants and are responsible for 35% of the world's crop production. Protected areas protect the biodiversity which makes this possible.

Fish provides about 3 billion people with almost 20% of their intake of animal protein. Marine protected areas enhance the protection and sustainable use of marine resources.

Marine protected areas, for instance, shape the social well-being and political power of fishing communities; they represent a viable strategy for enhancing food security and empowering local communities.

The worldwide economic value of the pollination service provided by insects in 2005 was estimated to be US$ 190 billion for the main crops that feed the world society.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to achievement of Targets of SDGs

Directly to: SDGs 2.4 and 2.5; 12.2; 12.8 and 12.b.
Indirectly to: SDGs 2.1 and 2.a; 12.1; 12.4 and 12.c.

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Aichi Biodiversity Target 11 Contributes to SDG 6

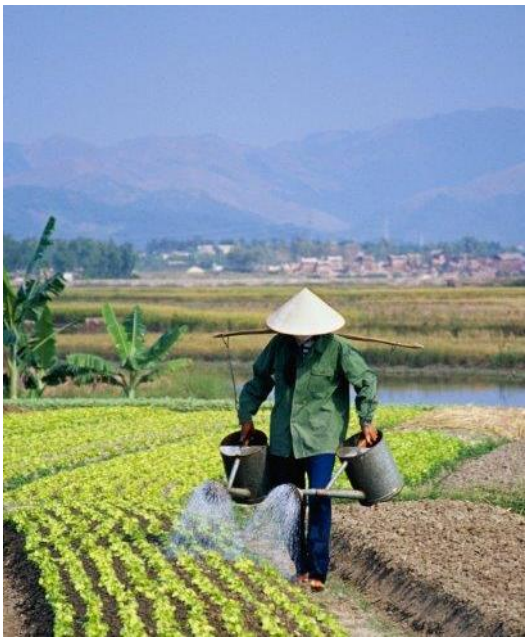
When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to water quality and provision, as well as integrated water resources management. This, in turn, can improve sanitation for local communities.

Examples of National Priority Actions

- **Indonesia**: Develop Integrated watershed management in 180 prioritized watersheds.
- **Palau**: IWRM (Implementing Sustainable Water Resource and Wastewater Management) project worked at the watershed level, looking at the holistic management of water; successful pilot projects testing innovative solutions involving linking ICM and IWRM and climate change adaptation.
- **Belize**: Improve surveillance, enforcement and management of freshwater bodies and rivers identified as under-represented within the national protected areas system; Implement or endorse recently developed environmental resource management policies and plans, including National Integrated Water Resources Management Policy.
- **Islamic Republic of Iran**: Water resources protection.

Nearly one billion people in the developing world don't have access to clean water. Protection, regional cooperation for transboundary conservation, connectivity and corridors, governance and equity with participation of all members of communities, effective management, mainstreaming and integration into wider land- and seascapes and sectors are elements of terrestrial and marine protected areas that can contribute to integrated water resources management, sustainable use of water, and to sanitation. Protected areas are not a universal solution to managing water resources, but they can help secure high quality water supplies, and address problems of scarcity and excess; both likely to increase as a result of climate change and increasing population.

Water Quality and Security: Ensure Access to Water and Sanitation for All



Key Elements of Target 11 and Priority Actions

Terrestrial quantitative: 184 actions by 88 Parties
Effective Management: 234 actions, 92 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Other area based conservation measures: 152 actions by 81 Parties

Examples from the Literature

The protection and sustainable use of mountain ecosystems is crucial as mountains are water towers not only to low lands but also to the world.

Wetlands clean and recharge our water supply, provide critical fish and wildlife habitat, and protect our communities from floods. Wetlands and forests also function in the detoxification of water, saving billions of dollars in water purification.

Water from protected areas is important for domestic use and subsistence agriculture as well as for large-scale irrigation, industrial use, hydroelectric power, and as a source of municipal drinking water.

In Ecuador, about 80% of Quito's 1.5 million residents receive drinking water from two protected areas in the Andes.

In the Dominican Republic, the Madre de las Aguas Conservation Area protects the source of 17 rivers that provide water for domestic use and irrigation to over half of the country's population.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDG 6

Directly to: SDG 6.5 and 6.6.
Indirect to: SDG 6.1; 6.3; 6.4; 6.a and 6.b.

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Aichi Biodiversity Target 11 Contributes to SDGs 13 and 1

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to mitigation of climate change, as well as adaptation and resilience. They help prevent risks of natural disasters, serve as risk management tools, and provide options for adaptation and resilience, especially to local communities and the vulnerable segment of the population

Examples of National Priority Actions

- **Zambia**: Undertake a vulnerability assessment and develop relevant adaptation measures to enhance climate change resilience for 4 priority ecosystems (critical headwaters) which are important for ecosystem services to the country.
- **Montenegro**: Bringing unprotected Important Biodiversity Areas (IBA) under protection either by expanding existing PAs or establishing new PAs and improving management effectiveness through addressing threats.
- **Uzbekistan**: Comprehensive program of measures to mitigate the effects of the Aral Sea disaster, rehabilitation and socio-economic development of the Aral Sea region in the 2015-2018 envisages the creation of 10 new protected areas with a total area of 3.7 million ha.
- **Nepal**: Assess impact of climate change on protected areas especially on climate sensitive zones.

Protected areas have ***1) Mitigation role****:* a) storing carbon that is present in vegetation and soils; b) sequestering carbon dioxide from the atmosphere in natural ecosystems; ***2) Adaptation role***: a) protection/maintenance of ecosystem integrity, buffering local climate change impact, reducing risks and impacts from extreme events such as storms, droughts and sea-level rise. By buffering the impacts of climate change, effectively managed terrestrial and marine protected areas strengthen adaptive capacity and resilience to climate related hazards and natural disasters, and serve as risk management tools.

In turn, actions that mitigate climate change will also tremendously benefit protected areas. Protected areas should be considered as a complementary form of anthropogenic environmental intervention geared towards restoration and protection of the environment.

Take Urgent Actions to Combat Climate change and its Impacts; Build Resilience of the Poor

Key Elements of Target 11 and Priority Actions

Terrestrial quantitative: 184 actions, 88 Parties
Marine quantitative: 64 actions, 49 Parties
Effective Management: 234 actions, 92 Parties
Equity & Governance: 159 actions, 78 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Other area based conservation measures:
152 actions by 81 Parties

Examples from the Literature

Access to clean drinking water, recently declared a basic human right by the United Nations and rendered increasingly precarious by climate change, is also facilitated through protected areas.

In Viet Nam, nearly 12,000 hectares of mangroves, planted at a cost of $1.1 million, led to savings of an estimated $7.3 million per year in dyke maintenance while providing protection against a typhoon that devastated neighboring areas.

Studies indicate that coastal wetlands annually sequester carbon at a rate two to four times greater than mature tropical forests and store three to five times more carbon per equivalent area than tropical forests.

39 national parks in Canada combined sequestered approximately 4.43 gigatones of carbon in various pools. If society had to replace this stored carbon, it would cost at least between $72-78 billion.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement Targets of SDGs

Directly to: SDGs 1.5 and 13.1.
Indirectly to: SDG 13.3; 13.a and 13.b.

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Aichi Biodiversity Target 11 Contributes to SDG 14

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Marine protected areas (MPAs) are already making important and far-reaching contributions to conservation and sustainable use of oceans, seas and marines resources.

Examples of National Priority Actions

- **United Republic of Tanzania**: Create new marine protected areas in biodiversity hotspots and fragile ecosystems.
- **China**: Creation of 5 new marine protected areas, more than 30 million hectares to strengthen MPAs-specific actions include improving the number, area and percentage of marine and coastal NRs, strengthening the conservation of mangroves, coral reefs and other ecosystems.
- **Mexico**: To successfully create two new projected marine protected area (of 33,493,362 ha and 1,182,563 ha respectively) in order to increase to 10.98% of the marine territory of the country.
- **Tonga**: Develop the National Marine Spatial planning framework.
- **Bangladesh**: Marine and Coastal Protected Area coverage will be expanded from 3.28% (3968 sq km) to about 7% (8500 sq km).

SDG 14 is directly related to marine protected areas. Effectively managed marine protected areas with appropriate governance, institutional and equity framework can help sustainably use marine resources, generate large benefits to society during the current and future generations, and contribute to the well-being of society in general. Marine protected areas provide a range of benefits for the marine environment, fisheries and local economies, including conservation of biodiversity and ecosystem services; prevention, even reversing decline in fish population and productivity; and increasing profitability for fishermen, attracting marine tourism and broadening the economic options for local communities, creating jobs, and providing opportunities for education, training, heritage and culture, among many others.

Life below Water Conserve and Sustainably Use the Oceans, Seas and Marine Resources

Key Elements of Target 11 and Priority Actions

Marine quantitative: 64 actions, 49 Parties
Ecological representation: 169 actions, 90 Parties
Effective Management: 234 actions, 92 Parties
Equity & Governance: 159 actions, 78 Parties
Integration: 83 actions, 49 Parties

Examples from the Literature

The total ecosystem service benefits of achieving 10% coverage of MPAs is estimated in the range USD 622-923 billion over the period 2015-2050; and for 30% coverage, the benefits range between USD 719-1,145 billion (coastal protection, fisheries, tourism, recreation and carbon storage provided by coral reefs, mangroves and coastal wetland).

One of the few studies analysing the impact of MPAs on local economies shows that MPAs in southern Europe generate an estimated €640,000 per MPA in income to industries providing services to non-resident recreational users.

It has also been estimated that designating 20-30 percent of the oceans as Marine Protected Areas could create 1 million jobs and still sustain a marine fish catch worth US$70-80 billion annually.

In Fiji and Vanuatu costs of community based marine protected areas are between US$15-100 per ha of protected area per year, compared with economic benefits of between US$1,100-5,300 per ha of protected area per year. All of the studied marine protected areas produced positive cost benefit ratios.

Fish provides about 3 billion people with almost 20% of their intake of animal protein.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDG 14

Directly to: SDG 14.1 to 14.6.
Indirectly to: SDG 14.7; and 14.a to 14.c.

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Aichi Biodiversity Target 11 Contributes to SDG 15

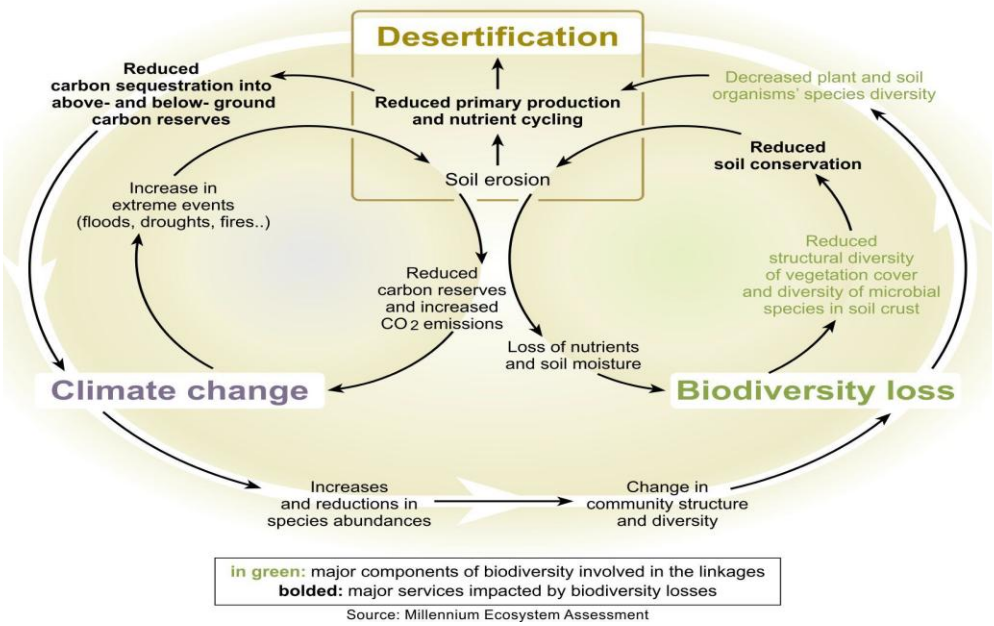
When implemented, the National Priority Action on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to the protection, restoration and sustainable use of biodiversity that underpins ecosystem goods and services on which the survival and well-being of society depend on.

Examples of National Priority Actions

- **Zambia**: Conduct management effectiveness assessments for all protected forest areas and heritage sites designated for exclusive protection by law.
- **Bahamas**: Continue mangroves restoration; improve capacity for forest management; invasive alien species' (IAS) management and control.
- **St-Lucia**: Develop and implement appropriate risk management strategies and interventions for invasive alien species and genetically modified organisms.
- **Samoa**: Implement possible actions to ensure there are forest corridors available to sustain the population of Samoa's endangered birds.
- **Sri Lanka**: Develop a national ecosystem (terrestrial, coastal and marine) conservation plan to identify the best possible strategies for afforestation enhancement, restoration and establishing connectivity.

Life on Land: Sustainably Manage Forests, Combat Desertification, Halt and Reverse Degradation, Halt Biodiversity Loss

Protected Areas can help change this vicious circle into a virtuous one



in green: major components of biodiversity involved in the linkages
bolded: major services impacted by biodiversity losses

Source: Millennium Ecosystem Assessment

Examples from the Literature

The protected areas of the Amazon bring in about three times as much money as would extensive cattle ranching, the most likely alternative use of the areas.

Wetlands improve the quality of community life; reduce flooding, improve water quality, and also increase hunting, fishing and recreation spending – Protecting and sustainably using wetlands is important.

Mangrove forests provide coastal protection, tropical mangroves and peat swamp forests provide numerous ecosystem services, including nutrient cycling, sediment trapping, protection from cyclones and tsunamis, habitat for numerous organisms (economically important) and wood for lumber and fuel and most importantly carbon storage.

Key Elements of Target 11 and Priority Actions

Terrestrial quantitative: 184 actions, 88 Parties
Ecological representation: 169 actions, 90 Parties
Effective Management: 234 actions, 92 Parties
Equity & Governance: 159 actions, 78 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Other area based conservation measures:
152 actions by 81 Parties

SDG 15 is directly related to terrestrial protected areas. Effectively managed protected areas, with appropriate governance, institutional and equity frameworks provide ecosystem goods and services, generate benefits to society for current and future generations, and contribute to the well-being of society worldwide. The multiple benefits are varied and range from spiritual, cultural, and religious values to esthetic quality for recreational purposes, socio-economic values (income, health, risk management, peace) among others. Most of the elements of Target 11 are relevant to SDG 15.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDG 15

Directly to:	SDG 15.1; 15.2; 15.4 to15.8; and 15.a to 15.c.
Indirectly to:	SDG 15.3 and 15.9.

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Aichi Biodiversity Target 11 Contributes to SDG 7

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to the energy sector, including hydroelectricity, biotechnology, and hydropower generation to help maintain water supply. As hydropower can be detrimental to biodiversity, it will be important to ensure that it does not lead to biodiversity loss.

Examples of National Priority Actions

- **Egypt**: Mainstreaming of biodiversity in energy and tourism sector.
- **Hungary**: Large scale project to measure ecosystems, and the value of ecosystems and their services, will begin in 2016; Environmental and Energy efficiency (KEEOP) application is being compiled.
- **Nepal**: Promotion of clean energy technologies, and green infrastructures in tourism sector for reducing pressure on biodiversity within the protected areas.
- **Republic of Moldova**: Develop two projects for local communities based on sustainable management of plant resources (energy, medicinal, feed, essential and oleaginous oils etc).

As demand for energy increases and progress towards bio-energy continues, integration of activities related to the energy sector and protected areas will also become crucial in order to encourage work in a synergistic manner and avoid exploitation of protected resources. In addition to effective management, regional cooperation for transboundary biodiversity conservation and enhanced connectivity and corridors elements of Aichi Biodiversity Target 11 will be useful to SDG 7. Such cooperation can help enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology and promoting investment in sustainable energy infrastructure, and clean energy technology.
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Clean Energy Ensure Access to Affordable, Reliable, Sustainable, and Modern Energy

Key Elements of Target 11 and Priority Actions

Terrestrial quantitative: 184 actions, 88 Parties
Effective Management: 234 actions, 92 Parties
Equity & Governance: 159 actions, 78 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Other area based conservation measures:
152 actions by 81 Parties

Examples from the Literature

In Peru, 60% of the hydroelectricity produced comes from rivers in protected areas, a service valued at US$320 million annually.

According to an estimate released at the beginning of 2015, the total global value of biotechnology is projected to reach US$4.8 billion by 2020.

In Montenegro, protected areas protect the source of existing and planned hydropower generation worth almost €80 million a year in public revenues, which potentially contribute around 1,800 GWh of electricity a year to domestic industrial and institutional consumers.

In the Mekong region in South-East Asia, over 40 major existing and proposed hydropower projects are linked to protected areas to help maintain sustainable water supplies.

Hydropower already provides 80% of Brazil's and 92% of Nepal's electricity generation. Protected areas have a role to play in the success and longevity of hydropower schemes.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDG 7

Directly to: SDG 7.1.
Indirect to: SDG 7.a.

Co-financed by:
Ministry of Environment Republic of Korea

Aichi Biodiversity Target 11 Contributes to SDG 9 and 11

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to sustainable cities and communities, industries, innovation, infrastructure development, and efforts to protect and safeguard the world's cultural and natural heritage.

Examples of National Priority Actions

- **Nepal**: Promotion of clean energy technologies, and green infrastructures in tourism sector for reducing pressure on biodiversity within the protected areas.
- **Belarus**: Creation of protected areas visitor centres, development and construction of 'green routes' including nature trails, as well as related infrastructure (2016-2020).
- **Republic of Moldova**: Infrastructure development.
- **Mali**: Government commitment to the development and promotion of a policy of encouraging eco-tourism through the creation of infrastructure and the development of tourists.
- **Indonesia**: New forest city and biodiversity garden in the remaining province.
- **Republic of Korea**: Exploring urban nature parks, private protected areas, Development restricted area, studying other effective conservation methods.

Inclusive, Safe, Resilient, Sustainable Infrastructure, Cities and Human Settlement, Industrialization, Innovation

Effectively managed and governed terrestrial and marine protected areas with related regional cooperation for transboundary conservation; and enhanced connectivity and corridors will contribute to SDG 9 and 11 where there is synergy and integration of activities. Actions to achieve SDG 9 and 11 can also contribute to protected areas by helping avoid negative impacts on protected areas, and facilitating direct benefits or co-benefits to conservation.

Mainstreaming, integration and synergy of activities of terrestrial and marine protected areas into the wider land- and seascapes, and sectors (e.g. housing, transportation, infrastructure, and urbanization) can encourage sustainable human settlement and help avoid negative impacts on protected areas, so that protected areas, in turn, contribute their various benefits to communities.

Effectively managed terrestrial and marine protected areas buffer the impacts of climate change, reduce risks of disasters, assist in adaptation and resilience, and provide economic, social and environmental benefits.

Key Elements of Target 11 and Priority Actions

Terrestrial quantitative: 184 actions, 88 Parties
Ecological representation: 169 actions, 90 Parties
Effective Management: 234 actions, 92 Parties
Equity & Governance: 159 actions, 78 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Other area based conservation measures: 152 actions by 81 Parties

Examples from the Literature

Protected areas in and around cities offer various benefits to people by providing vital ecosystem services such as supplying and storing clean water, reducing air pollution and moderating the urban heat island effect, protecting biodiversity and supporting the local economy.

The approach of setting up urban protected areas has demonstrated its social and economic usefulness in many countries.

Green infrastructure, a cost-effective, resilient approach to managing wet weather impacts, reduces and treats storm water at its source while delivering environmental, social, and economic benefits to many communities.

The IUCN World Conservation Congress held in Hawai'i, in September 2016, among others: *Calls on governments not to de-gazette, downgrade or alter the boundaries of all categories of protected areas to facilitate environmentally damaging industrial activities and infrastructure development.*

Greater attention needs to be focused on ways to integrate and mainstream protected areas into sustainable development, including promotion of "green" infrastructure as a strategic part of responses to climate change.

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDGs

Directly to : SDGs 9.4; 11.4.
Indirectly to : SDGs 9.1 and 9.a; 11.5 to 11.7; 11.a and 11.b.

Co-financed by:
Ministry of Environment
Republic of Korea

Aichi Biodiversity Target 11 Contributes to SDGs 10 and 16

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to help progressively achieve and sustain income growth of local communities; to effective, accountable and transparent institutions, inclusive participatory and representative decision-making, through implementation of its elements, including effective management, governance and equity measures.

Examples of National Priority Actions

- **St-Lucia**: Provide appropriate mechanisms for the participation of resource users, institutional partners and local communities in the sustainable use, development and management of resources.
- **Lebanon**: By 2020, the protected areas in Lebanon have effective business plans and are implementing regular income generating activities.
- **Niger**: Equitable sharing of resources and income from PA operations with local people.
- **Argentina**: Analyze the legal and regulatory framework for the integration of corridors in territorial planning with the native forest law.
- **Tonga**: Strengthen the existing governing mechanism for compliance and enforcement.
- **Iran**: Local people engagement and satisfaction for less conflict with PAs.

Reduction of Inequality within and among Countries Peaceful and Inclusive Societies

Effectively managed terrestrial and marine protected areas with appropriate governance and institutional framework as well as equity measures, and integrated into sectors can assist in the achievement of targets of SDGs' 10 and 16. Many of the world's richest and most diverse habitats are found in places where poverty is a real and pressing issue. Countries that are very rich in biodiversity are mostly developing countries and countries with economies in transition which require assistance (e.g. funding, resources, technology) to protect this vast biodiversity wealth for the benefits of current and future generations. Effective implementation of protected areas can promote discourse and thereby help avoid conflicts arising from, for example, unfair distribution of benefits and inequalities, through regional cooperation for transboundary conservation including protected area for peace, appropriate connectivity and corridors etc. Protected areas not only safeguard global biodiversity but also build peace in conflict hotspots. The Peace and Biodiversity Initiative: Transboundary Conservation for Biodiversity and Peace, by the Republic of Korea, adopted at COP 12, will be very useful towards the achievement of SDGs 10 and 16, among other initiatives, the implementation of which are being facilitated by the Secretariat of the CBD.

Examples from the Literature

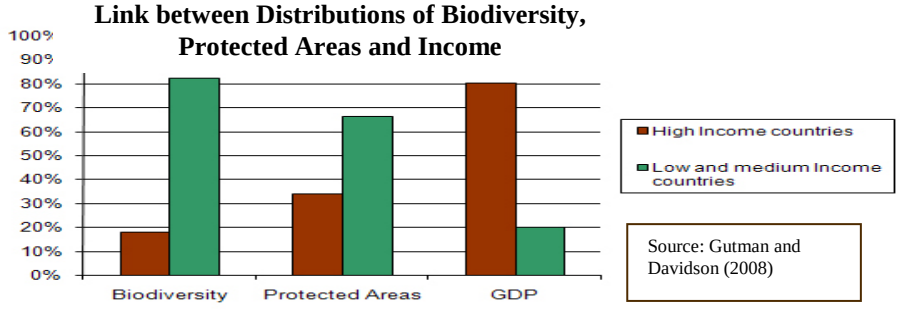
Protected areas (PAs) play an appreciable role in national economies and development: In Montenegro, the quantified value of PAs equated to some 2.2% of GDP, or economic benefits of €106 generated per capita in 2010. Values of PAs accrued to multiple sectors at different levels of scale and generated a substantial multiplier effect across the economy (income, consumption, spending, employment and cost-savings).

In Guatemala, the Maya Biosphere Reserve generates an annual income of approximately US$47 million while creating employment for 7000 people.

Good governance of natural resources is vital for post-conflict recovery. It can support the reestablishment of security, delivery of basic services, strengthening of the economy and livelihoods, and improved legitimacy and cooperation

Transboundary Conservation Areas do much more than improve biodiversity conservation: they help promote reconciliation in border conflicts, re-unite families and ethnic groups divided by political boundaries, and provide social benefits - such as secure land tenure - to people living in the area.

Link between Distributions of Biodiversity, Protected Areas and Income



Source: Gutman and Davidson (2008)

Key Elements of Target 11 and Priority Actions

Terrestrial quantitative: 184 actions, 88 Parties
Marine quantitative: 64 actions, 49 Parties
Effective Management: 234 actions, 92 Parties
Equity & Governance: 159 actions, 78 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Areas important for biodiversity: 198 actions, 88 parties
Other area based conservation measures:
152 actions by 81 Parties

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDGs

Directly to: SDG 10.1.
Indirect to: SDG 16.3; 16.4; 16.6 to 16.8; 16.10; 16.a and 16.b.

Co-financed by:

Ministry of Environment
Republic of Korea

Aichi Biodiversity Target 11 Contributes to SDG 17

When implemented, the National Priority Actions on protected areas developed by the CBD Parties, to be undertaken during the next four years to achieve Aichi Biodiversity Target 11 by 2020, have the potential to contribute to all three pillars of sustainable development: social, economic and environmental. Protected areas are already making important and far-reaching contributions to generation of income from multiple sources; enhancing North-South and South-South cooperation; encouraging partnerships, promoting support for implementing effective and targeted capacity building, among many others.

Examples of National Priority Actions

- **United Republic of Tanzania**: Promote regional cooperation on protection and conservation of transboundary terrestrial and marine protected areas.
- **Philippines**: Opportunities for ecological gap assessment, management effectiveness assessment, sustainable financing assessment and implementation, capacity needs assessment, policy environment assessment, PA integration and mainstreaming, and PA valuation.
- **Belarus**: Work on the integration of natural areas of the Republic of Belarus in the Emerald network created within the framework of the Convention on the Conservation of Wild Flora and Fauna and Natural Habitats in Europe.
- **Kenya**: Improve cross-border cooperation and collaboration in the management of trans-border protected areas and ecological processes, such as wildlife migrations.

Effectively managed terrestrial and marine protected areas can tremendously contribute to SDG 17 which can also contribute, in turn, to Aichi Biodiversity Target 11. The most relevant elements of Aichi Biodiversity Target 11 are connectivity and corridors, regional cooperation for transboundary conservation. The regional cooperation and partnerships can facilitate cooperation at the international level and help enhance North-South, South-South and triangular regional and international cooperation. Protected areas can also generate a substantial amount of benefits with their very high rate of return to investment, income that can be reinvested towards their management, poverty alleviation, local and regional development etc. The Bio-Bridge Initiative by the Republic of Korea, adopted at COP 12, will be extremely useful towards the achievement of SDG 17, among other initiatives already put in place at the Secretariat of the CBD.

Strengthen the Means of Implementation; Revitalize Global Partnership for Sustainable Development

17 PARTNERSHIPS FOR THE GOALS

Key Elements of Target 11 and Priority Actions

Terrestrial quantitative: 184 actions, 88 Parties
Marine quantitative: 64 actions, 49 Parties
Effective Management: 234 actions, 92 Parties
Equity & Governance: 159 actions, 78 Parties
Integration: 83 actions, 49 Parties
Connectivity & corridors: 166 actions, 87 Parties
Other area based conservation measures:
152 actions by 81 Parties

Examples from the Literature

Saint Lucia is soon to start a regional sustainable financing project for protected areas and assistance can be sought from South countries in the development and implementation of such sustainable financing mechanisms.

Protected areas should be considered as an alternate economic land-use with the potential to stimulate the local housing development sector, encourage local business growth, and sustain local government finances.

The Latin American Technical Cooperation Network on National Parks, other protected areas and Wildlife (REDPARQUES) contributes to the development and technical capacity, to member countries.

MedPAN, network of managers of Marine Protected Areas (MPAs) in the Mediterranean, represents over 80 MPAs, involves a Triangular North-South-South Cooperation that is beneficial to the MPAs and to the managers in the South due to the greater experience in the North (developed European countries).

The National Priority Actions will help achieve Aichi Biodiversity Target 11 and contribute to the achievement of Targets of SDG 17

Directly to	SDG 17.9.
Indirectly to	SDG 17.2; 17.3; 17.6-17.8; 17.14 -17.16; 17.18; and 17.19.

Co-financed by:
Ministry of Environment Republic of Korea
german cooperation
Japan Biodiversity Fund
European Commission

Aichi Biodiversity Target 11 Contributes to Climate Change Mitigation

Protected areas help address the cause of climate change by preventing the loss of carbon that is already present in vegetation and soil and sequestering further carbon dioxide from the atmosphere in natural ecosystems. Aichi Biodiversity Target 11 highlights expanding the coverage of and effectively managing protected areas. Achieving Target 11 and enhancing the implementation of its national priority actions will generate multiple positive contributions to global climate change mitigation, which will also encourage the integrated implementation of other international programs including NDCs and NBSAPs.

Examples of National Priority Actions

- **Papua New Guinea** – "Identify the importance of Mitigating the climate change effects through maintaining intact forests and thus storing carbon" and "support and help in adaptation, by providing a buffering effect from climatic extremes and reducing the impact of sea level rise along coastlines by maintain natural vegetation"
- **Belize** – Improve management of marine resources; Develop and implement environmental resource management policies and plans as part of Belize's focus
- **Nepal** – Restore degraded forest ecosystem, rangeland, and wetland habitats; Promote conservation-friendly management of forests

Examples of Related Actions Countries Submitted to Nationally Determined Contributions (NDCs)

- **Papua New Guinea** – Implement REDD+ activities under the UNFCCC to reduce emissions and enhance removals from forestry and land use; Announce a Climate Change Act to ensure the implementation of actions
- **Belize** – Protect forest reserves and ensure sustainable forest management; Reduce fuel wood consumption; Protect and restore mangrove forest
- **Nepal** – Promote afforestation and enhance carbon sequestration; Promote climate-friendly practices in agriculture; Maintain 40%of the total area of the country under forest cover; Increase forest productivity and products through sustainable management

According to Article 4 paragraph 2 of the Paris Agreement, each Party shall prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions

Paris Agreement – Article 4 & 5:
Parties aim to reach global peaking of greenhouse gas emissions, and to undertake rapid reductions thereafter so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty; Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases

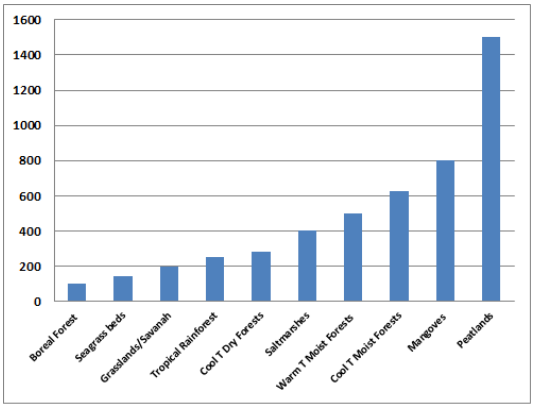
Climate Change Mitigation

Examples and Basis from Literature

- **Contribution of the global protected area network to climate change mitigation through carbon sequestration -** It was estimated that the 15.5 million km2 of terrestrial protected areas used for the assessment sequestered approximately 0.5 Pg C annually, which is approximately 20 % of all carbon sequestered by land-based ecosystems, and equivalent to the emissions of over 100 million passenger vehicles driven for a year.
(Melillo, J.M.et.al (2015) 'Protected areas' role in climate-change mitigation', Ambio)
- **Ecosystem-based mitigation** - Using ecosystems for their carbon storage and sequestration service to aid climate change mitigation. Emissions reductions are achieved through creation, restoration and management of ecosystems
- **Madagascar** - Around 6 million ha of new protected areas are being created, responsible for 4 million tonnes of avoided carbon dioxide a year
- **Gabon -** Taking measures to conserve mature forest protected areas such as controlling fire damage and land use change. These strategies have prevented the release of thousands of tons of GHG to the atmosphere, as well as steadily increasing carbon storage carbon

Examples of Ecosystem-based mitigation

- **Peatlands** - Certain biomes are capable of holding more carbon than others, placing significant value in conserving specific ecosystem types (Graph 1). For example, peatlands store the most carbon but only cover 3% of the global land surface. Targeting peatlands for protection, along with appropriate management strategies such as re-wetting drained areas, would effectively secure more carbon stocks and provide co-benefits for biodiversity.
(Joosten, Wetlands International and Greifswald University, 2010)
- **Tropical Forests** - Forest loss and degradation in the tropics contribute 6–17% of all greenhouse gas emissions. A study found that the reduction of these emissions from ongoing deforestation in protected sites in humid tropical forests could be valued at USD 6,200–7,400 million. Improving management of protected areas to retain forest cover may also be an important component of an overall strategy for reducing emissions from deforestation and forest degradation (REDD).
(Scharlemann et al, Securing tropical forest carbon: the contribution of protected areas to REDD, 2010)



Graph 1: Amount of carbon (tonnes) stored in each biome type per hectare

(Number based on pre-anthropogenic estimates)

Based on current data, protected area networks in the world have already showed an unparalleled capability on global carbon storage and sequestration. Expanding the coverage and improving the management of protected areas worldwide will definitely create more opportunities to promote these and other benefits. Therefore, enhancing the implementation of Aichi Biodiversity Target 11 and investing in the restoration of ecosystems through protected areas will result in a growing contribution to climate change mitigation.

Co-financed by:
Ministry of Environment Republic of Korea
german cooperation
Japan Biodiversity Fund
European Commission

Aichi Biodiversity Target 11 Contributes to Climate Change Adaptation

Protected areas help society cope with climate change impacts by maintaining essential services upon which people depend. Managing protected areas as resources for adaptation is increasingly recognized as a necessary and relatively cost-effective strategy. Aichi Biodiversity Target 11 highlights the need to conserve areas important for ecosystem services through effective and equitably managed, ecologically representative protected area systems and other effective area-based conservation measures (OECMs), which will provide substantial contributions to climate change adaptation.

Examples of National Priority Actions

- **Eritrea** - The Operationalizing Protected Area Management Systems will be integrated with other projects to reinforce the activities that have been already undertaken by the Government emphasizing food security, conservation of biodiversity, adaptation to impacts of climate change, combatting land degradation and desertification.
- **Colombia** – "Corridor connecting forest, flooded forests and coastal and marine ecosystems in the Colombian Caribbean" and "By 2020 the country will have 210 000ha in the process of restoration in areas defined under the National Plan of Ecological Restoration for the Rehabilitation and Recuperation of disturbed areas"
- **Zambia** - Undertake a vulnerability assessment and develop relevant adaptation measures to enhance climate change resilience for 4 priority ecosystems (critical headwaters) which are important for ecosystem services to the country.

Examples of Related Actions Countries Submitted to Intended Nationally Determined Contributions (INDCs)

- **Eritrea** - Develop and establish new enclosure areas; promote Conservation Agriculture /Climate Smart Agriculture; Develop terrestrial and marine protected area; Rehabilitate degraded land program for agriculture.
- **Colombia** – Ensure 100% of the national territory covered by climate change plans formulated and being implemented; Delimitate and protect Colombia's 36 "paramo" areas; Increase more than 2.5 million ha newly protected areas.
- **Zambia** - Guarantee food security through diversification and promotion of Climate Smart Agricultural practices; Develop a National Wildlife Adaptation Strategy; Institutionalize integrated land use planning compatible with sustainable management of natural resources and infrastructure development.

Before the Paris Agreement, INDCs were identified by parties in preparation for achieving the objectives of UNFCCC. As at 4 April 2016, 161 INDCs had been received, covering 189 Parties to the Convention. By its decision 1/CP.21, paragraph 22, the Conference of the Parties (COP) invited Parties to communicate their first NDC. Currently, 104 parties have submitted their first NDCs.

Paris Agreement – Article 7 & 8:
Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal; Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage.

Climate Change Adaptation

Currently, 19.8 million km^2 of protected areas exist as per the WDPA 2016, while 3.1 million km^2 is needed to meet the terrestrial quantitative element of Aichi Biodiversity Target 11. To date, where quantitative information is provided, priority actions identified in the national roadmaps for Target 11 have proposed a global increase of more than 710,000 km^2 of new protected areas. If implemented, these actions along with increases in the coverage OECMs, will provide wonderful opportunities for both climate change mitigation and adaptation. This would create a double win—a win in the fight against global climate crisis and a win in the battle to protect our planet's biodiversity.

Examples and Basis from Literature

- **Contribution of protected areas -** Protected areas provide a cost-effective and practical means of addressing many aspects of adaptation through ecosystem-based approaches, including preventing or reducing the effects of "natural" disasters, providing a secure and potable water supply addressing climate-related health issues and protecting food supplies including wild foods, fisheries and crop wild relatives. (Natural Solutions: Protected areas helping people cope with climate change)
- **Ecosystem-based adaptation** - Using biodiversity and ecosystem services as part of an overall adaptation strategy to help people and communities adapt to the negative effects of climate change at local, national, regional and global levels
- **Maintain ecosystem integrity -** Protected areas maintain essential ecosystem services which can increase resistance, resilience and reduce vulnerability of livelihoods against climate change. Functions include providing source of sustainable food for communities; conserving and helping rebuild fish stocks in marine and freshwater areas; protecting crop wild relatives to facilitate crop breeding and pollination services; preventing expansion of vector-borne diseases and provide access to traditional medicines
- **Trinidad and Tobago -** the restoration and conservation of the Nariva wetlands recognizes their importance as a carbon sink, a high biodiversity ecosystem and a natural buffering system against coastal storms.
- **Swiss** - 17% of Swiss alpine forests are protected, managed and restored to prevent and protect from landslides and avalanches, providing services to the country worth approximately US$ 2-3.5 billion per year