

# Overview of the Aichi-Nagoya Outcomes: The Strategic Plan for Biodiversity 2011-20, the Aichi Biodiversity Targets and National Implementation

David Cooper, CBD Secretariat  
Kasane, March 2011.



CBD





2010 International Year of Biodiversity

# Aichi-Nagoya Outcomes (COP-10 / MOP-5)



Life in harmony,  
into the future

47 decisions of COP-10, including:

- Nagoya Protocol on ABS
- Strategic Plan and Aichi Targets
- Strategy for Resource Mobilization

17 decisions of MOP, including:

- Nagoya-KL Protocol on Liability & Redress
- Strategic Plan for Biosafety Protocol

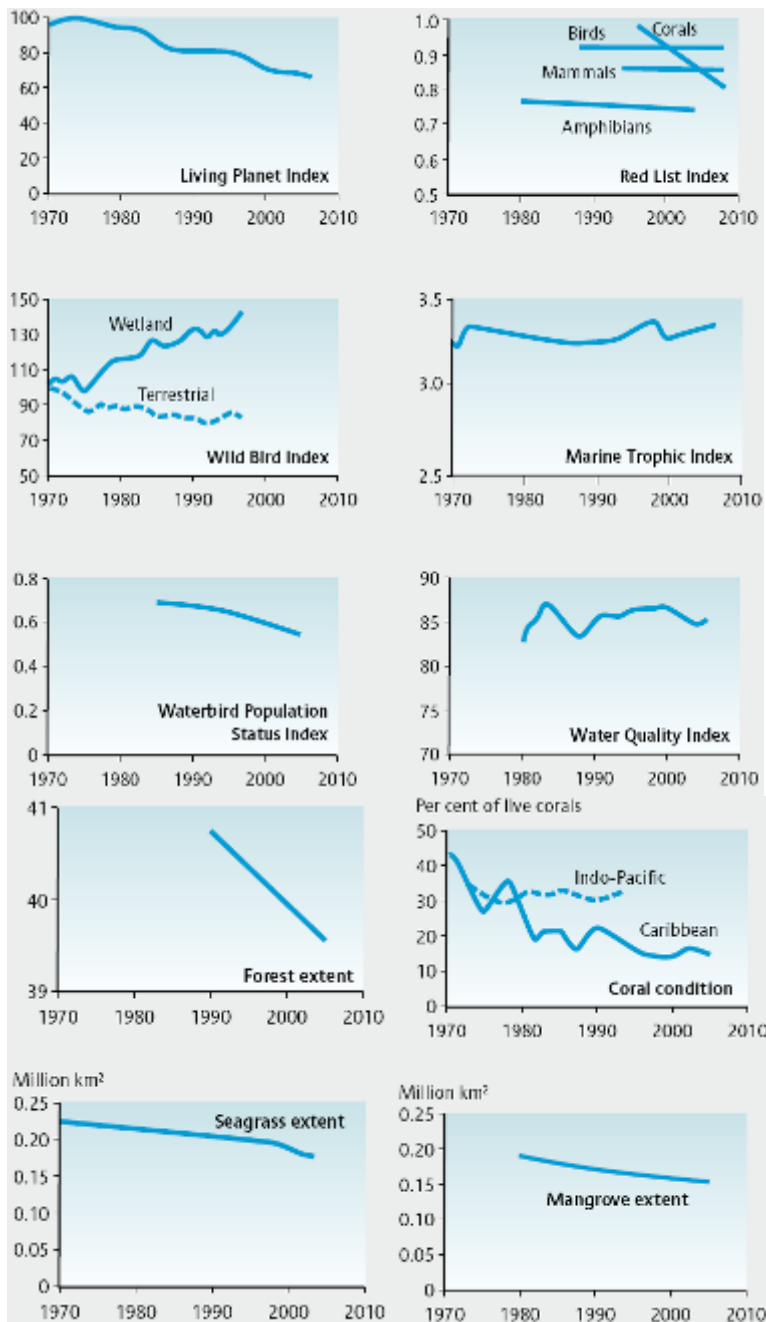
Plus declarations of parallel meetings on  
Local Authorities & Cities, Parliamentarians,  
Biodiversity and Development

# COP-10 Decisions

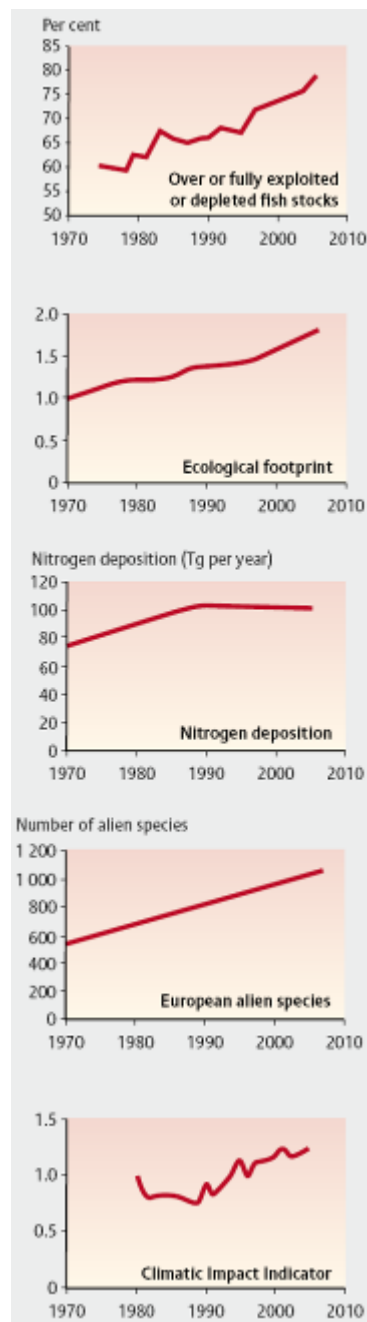
- X/1. Nagoya Protocol on Access Benefit Sharing
- X/2. The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets
- X/3. Strategy for Resource Mobilization
- X/4. Global Biodiversity Outlook
- X/5. Implementation of the Convention
- X/6. Biodiversity and poverty eradication and development
- X/7. Goals and targets and associated indicators
- X/8. UN Decade on Biodiversity 2011-2020
- X/9. The multi-year programme of work
- X/10. National reporting
- X/11. IPBES
- X/12. Ways and means to improve the effectiveness of SBSTTA
- X/13. New and emerging issues
- X/14. Retirement of decisions
- X/15. Clearing-house mechanism
- X/16. Technology transfer and cooperation
- X/17. Global Strategy for Plant Conservation 2011-2020
- X/18. CEPA and IYB
- X/19. Gender mainstreaming
- X/20. Cooperation with other conventions and initiatives
- X/21. Business engagement
- X/22. Plan of Action on Cities and Local Authorities
- X/23. South-South Cooperation
- X/24. Review of guidance to the financial mechanism
- X/25. Additional guidance to the financial mechanism
- X/26. Assessment of the amount of funds needed for GEF-6
- X/27. 4th review of the effectiveness of the financial mechanism
- X/28. Inland waters biodiversity
- X/29. Marine and coastal biodiversity
- X/30. Mountain biological diversity
- X/31. Protected areas
- X/32. Sustainable use of biodiversity
- X/33. Biodiversity and climate change
- X/34. Agricultural biodiversity
- X/35. Biodiversity of dry and sub-humid lands
- X/36. Forest biodiversity
- X/37. Biofuels and biodiversity
- X/38. Invasive alien species
- X/39. Global Taxonomy Initiative
- X/40. Mechanisms for the effective participation of indigenous and local communities
- X/41. Elements of *sui generis* systems for the protection of traditional knowledge
- X/42. The Tkarihwaí:ri code of ethical conduct
- X/43. Multi-year programme of work on Article 8(j) and related provisions
- X/44. Incentive measures
- X/45. Administration and budget 2011-2012
- X/46. Date and venue of COP-11
- X/47. Tribute to the Government and people of Japan



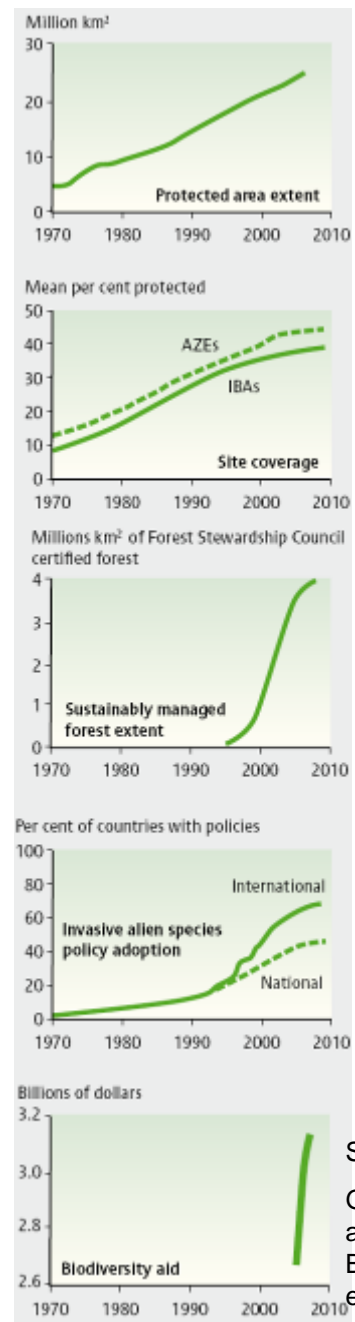
# State



# Pressure



# Response



Source:  
GBO-3,  
after  
Butchart  
et al 2010



# 50

## BIODIVERSITY SCENARIOS: PROJECTIONS OF 21<sup>ST</sup> CENTURY CHANGE IN BIODIVERSITY AND ASSOCIATED ECOSYSTEM SERVICES

A Technical Report for the  
Global Biodiversity Outlook 3



newly maintained activities and resources involves  
a process that erases historic modifications (10).

12. Materials and methods are available as supporting  
material on Science Online.



7 January 2010; accepted 1 April 2010  
10.1126/ocw.1106777

## Global Biodiversity: Indicators of Recent Declines

Stuart H. M. Butchart,<sup>1,2\*</sup> Matt Walpole,<sup>4</sup> Ben Collen,<sup>3</sup> Arco van Strien,<sup>4</sup>  
Jörn P. W. Scharlemann,<sup>4</sup> Rosamunde E. A. Almond,<sup>3</sup> Jonathan E. M. Baillie,<sup>3</sup>  
Bastian Bomhard,<sup>1</sup> Claire Brown,<sup>4</sup> John Bruno,<sup>5</sup> Kent E. Carpenter,<sup>6</sup> Genevieve M. Carr,<sup>7,8</sup>  
Janice Chamson,<sup>9</sup> Anna M. Chinery,<sup>3</sup> Jorge Csirke,<sup>9</sup> Nick C. Davidson,<sup>10</sup> Frank Dentame,<sup>11</sup>  
Matt Foster,<sup>12</sup> Alessandro Gall,<sup>13</sup> James N. Galloway,<sup>14</sup> Piero Genovesi,<sup>15</sup>  
Richard D. Gregory,<sup>14</sup> Marc Hockings,<sup>17</sup> Valerie Kapos,<sup>14,18</sup> Jean-Francois Lamarque,<sup>19</sup>  
Fiona Leverington,<sup>14</sup> Jonathan Loh,<sup>20</sup> Melodie A. McGeoch,<sup>21</sup> Louise McKee,<sup>2</sup>  
Anahit Minasyan,<sup>22</sup> Monica Hernández-Monjillo,<sup>2</sup> Thomasina E. E. Oldfield,<sup>23</sup> Daniel Pauly,<sup>24</sup>  
Suhel Quader,<sup>25</sup> Carmen Revenga,<sup>24</sup> John R. Sasser,<sup>27</sup> Benjamin Skolnik,<sup>24</sup> Dan Spear,<sup>29</sup>  
Damon Stanwell-Smith,<sup>3</sup> Simon N. Stuart,<sup>1,2,3,30,31</sup> Andy Symes,<sup>4</sup> Megan Tierney,<sup>3</sup>  
Tristan D. Tyrrell,<sup>3</sup> Jean-Christophe Vie,<sup>22</sup> Reg Watson.<sup>4</sup>

In 2002, world leaders committed, through the Convention on Biological Diversity, to achieve a significant reduction in the rate of biodiversity loss by 2010. We compiled 31 indicators to report on progress toward this target. Most indicators of the state of biodiversity (covering species, population trends, extinction risk, habitat extent and condition, and community composition) showed declines, with no significant recent reductions in rate, whereas indicators of pressures on biodiversity (including resource consumption, invasive alien species, nitrogen pollution, overexploitation, and climate change impacts) showed increases. Despite some local successes and increasing responses (including extent and biodiversity coverage of protected areas, sustainable forest management policy responses to invasive alien species, and biodiversity-related aid), the rate of biodiversity loss does not appear to be slowing.

framework of indicators to measure biodiversity loss at the level of genes, populations, species, and ecosystems (3, 4). Although a minority have not been published individually (5), hitherto they have not been synthesized to provide an integrated outcome. Despite suggestions that the target is unlikely to be (6–8), or has not been (4, 9, 10), we test this empirically using a broad suite of biodiversity indicators.

To evaluate achievement of the 2010 target, we (i) determined the trend, and timing and direction of significant inflections in trend for individual indicators (11) and (ii) calculated aggregated indices relating to the state of biodiversity, pressures upon it, policy and management responses, and the state of benefits (ecosystem services) that people derive from biodiversity, using the best available sources. To calculate aggregate indices, we first scaled each of 24 indicators (out of 31) with available trend information to a value of 1 in the first year with data from 1970 onward (only eight indicators had earlier trends) and calculated annual proportional change from this first year. Then we used a generalized additive model to fit inflections (12, 13) and determined the difficulty

"2010 target" has been achieved in any of the United Nations Millennium Development Goals (MDGs). The current rate of biodiversity loss "is not slowing."

## Global Biodiversity Outlook 3



# Tipping Points

## Amazon dieback

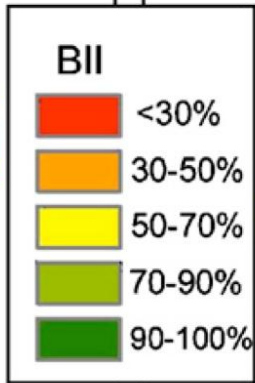
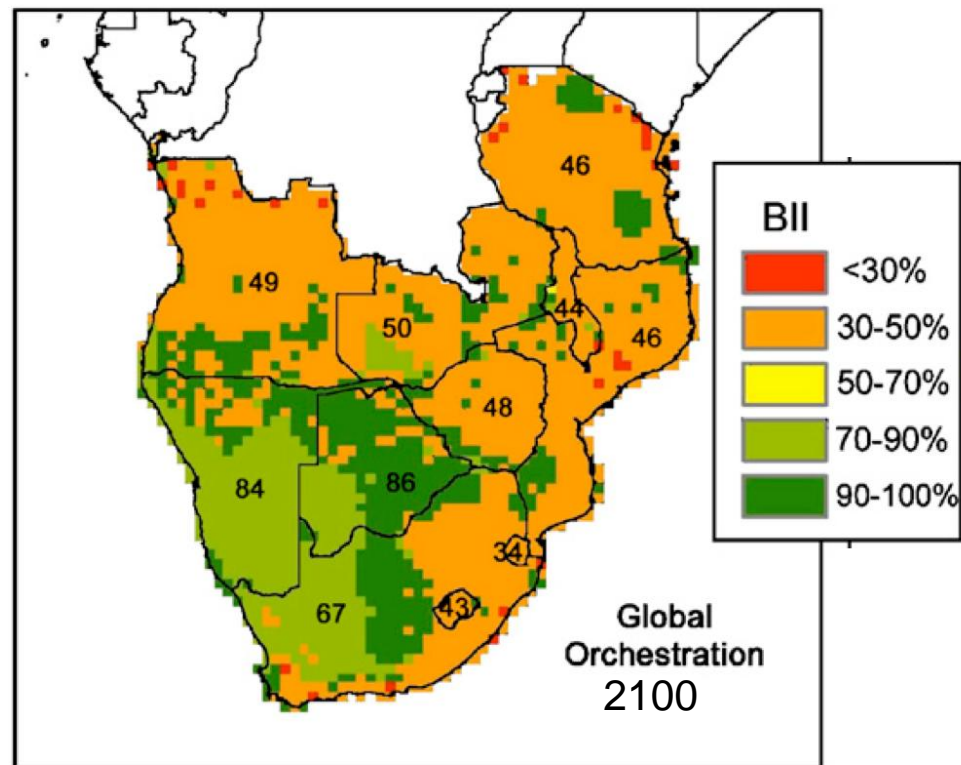
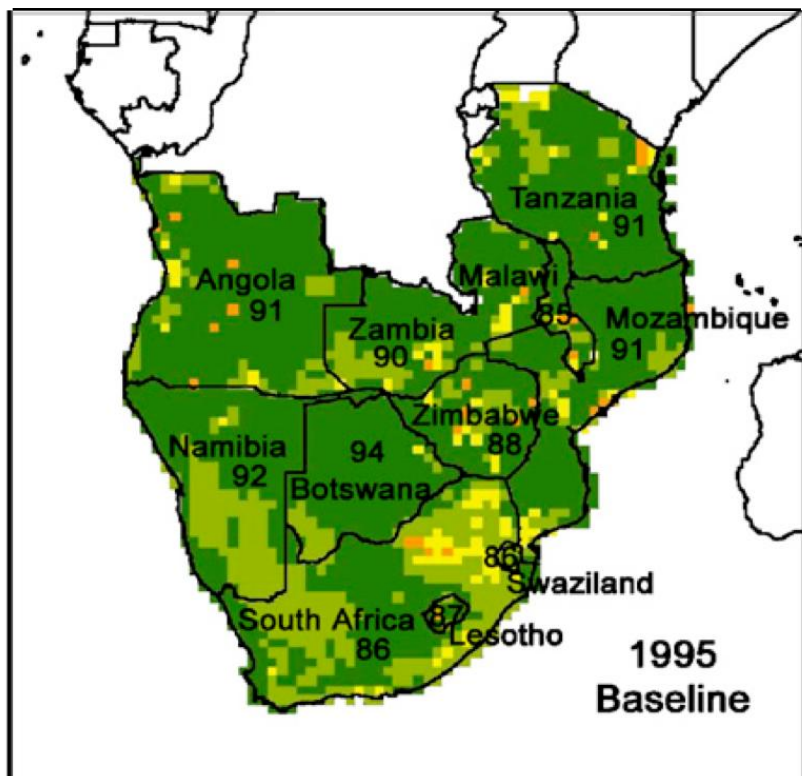


## Eutrophication



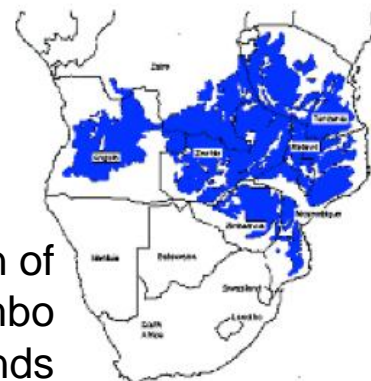
## Coral reef collapse





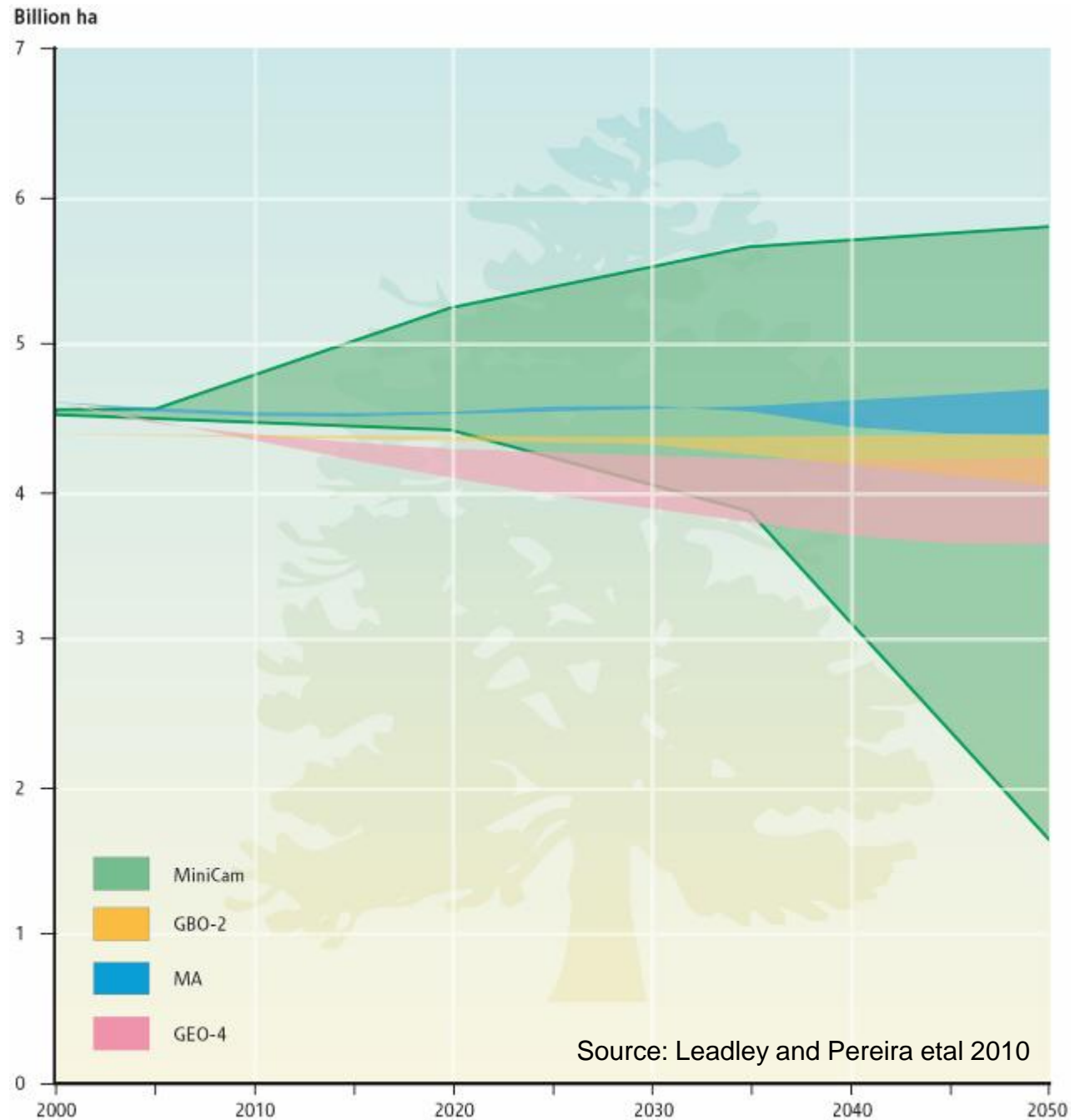
Biodiversity projections foresee very large to extreme destruction of miombo woodlands

Distribution of miombo woodlands

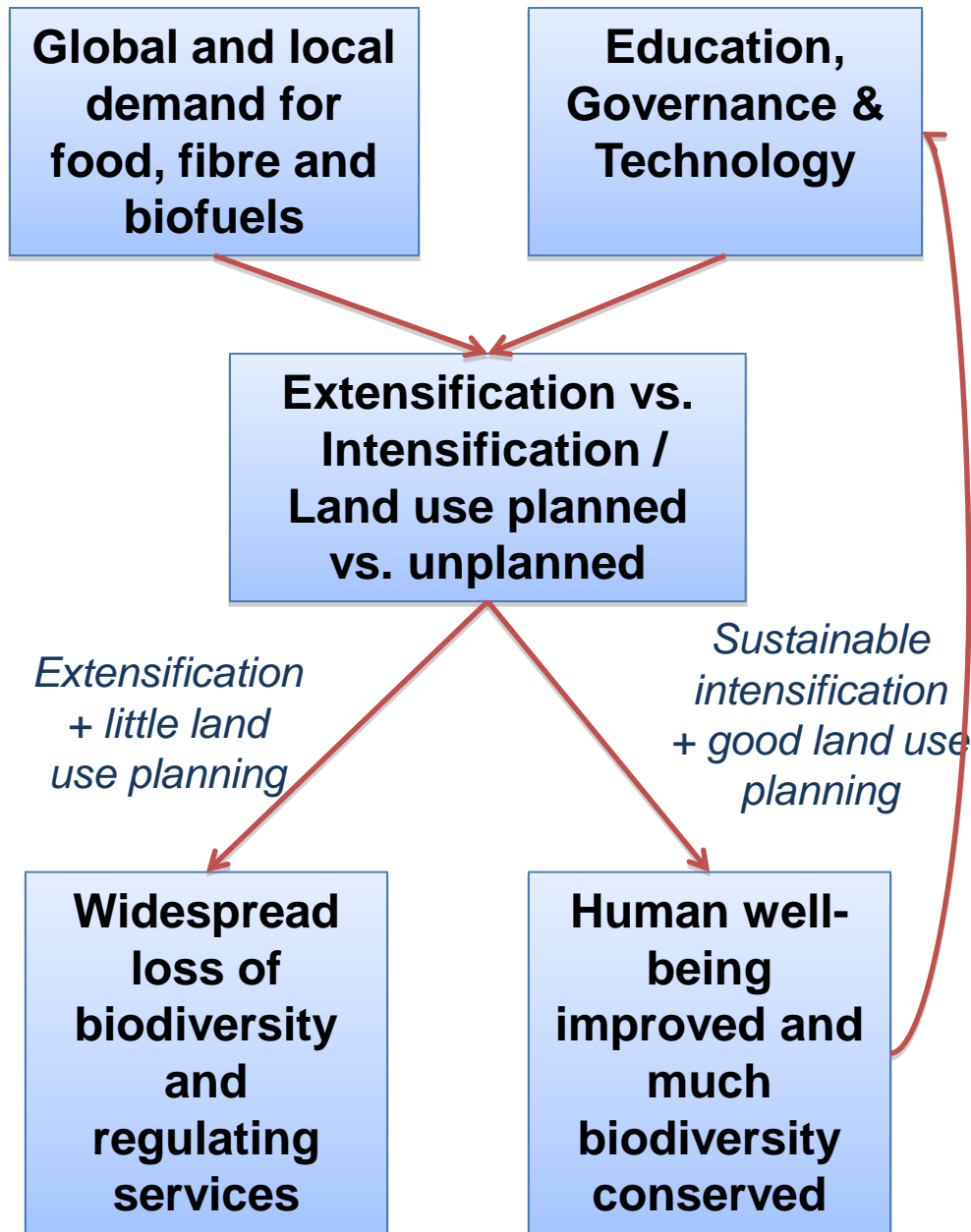




There is a greater range of options than previously recognized



# Miombo woodlands tipping point



## **Mitigation & Adaptation:**

- Improved education, governance & technology transfer
- Sustainable intensification of agriculture
- Good land use planning
- Limited global pressures on food & biofuels

**Certainty:** Moderate - - current trends and all models in qualitative agreement. High uncertainty in future development pathways.

# GBO-3: Action needed this decade



The **action** taken over the next decade or two will determine whether the relatively stable environmental conditions on which human civilization has depended for the past 10,000 years will continue beyond this century.

If we fail to use this opportunity, many ecosystems on the planet will move into new, unprecedented states in which the capacity to provide for the needs of present and future generations is highly uncertain (“**tipping points**”).

Greater range of **options** than previously recognized

**Inaction is more expensive** in the long run than investing in action now

# Strategic Plan for Biodiversity 2011-2020

**Framework** for all Conventions and stakeholders.

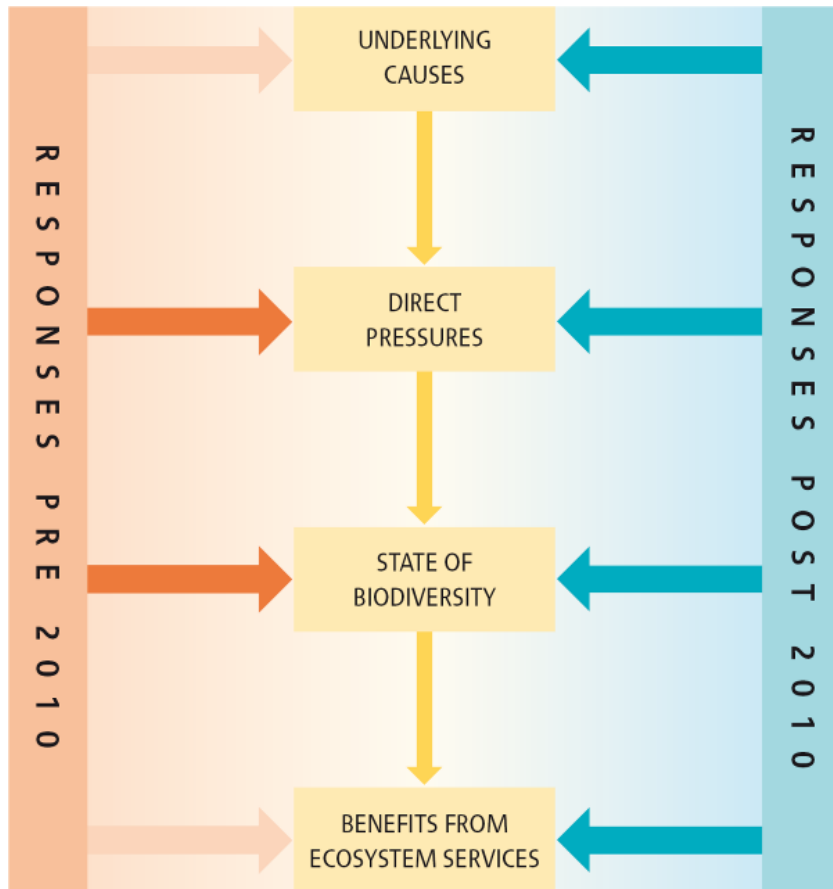
**Vision:** *Living in harmony with nature.* By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.”

**Mission** Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life, and contributing to human well-being, and poverty eradication

**20 Aichi Biodiversity Targets**

**Implementation mechanisms**

# Strategic Goals



- A. Address the **underlying causes** of biodiversity loss (mainstreaming)
- A. Reduce the **direct pressures** and promote sustainable use
- A. **Directly safeguard** ecosystems, species and genetic diversity
- B. Enhance the **benefits** to all from biodiversity and ecosystem services
- C. **Enhance implementation** through participatory planning, knowledge management and capacity building

# Aichi Nagoya Targets

## **Strategic goal A. Address the underlying causes of biodiversity loss**

Target 1: By 2020, People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, biodiversity values are integrated into national and local development and poverty reduction strategies and planning processes and national accounts ...

Target 3: By 2020, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed .....

Target 4: By 2020, Governments, business and stakeholders have plans for sustainable production and consumption and keep the impacts resource use within safe ecological limits.

## **Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use**

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6: By 2020 all stocks managed and harvested sustainably, so that overfishing is avoided .....

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

## **Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity**

Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas are conserved through systems of protected areas.....

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives is maintained,

## **Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services**

Target 14: By 2020, ecosystems that provide essential services, including services are restored and safeguarded,

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems,

Target 16: By 2015, the Nagoya Protocol on Access and Benefits Sharing is in force and operational

## **Strategic goal E. Enhance implementation through participatory planning, knowledge management and capacity building**

Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated NBSAP.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities and their customary use, are respected.

Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20: By 2020, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources,, should increase substantially .

## Strategic goal A. Address the underlying causes of biodiversity loss

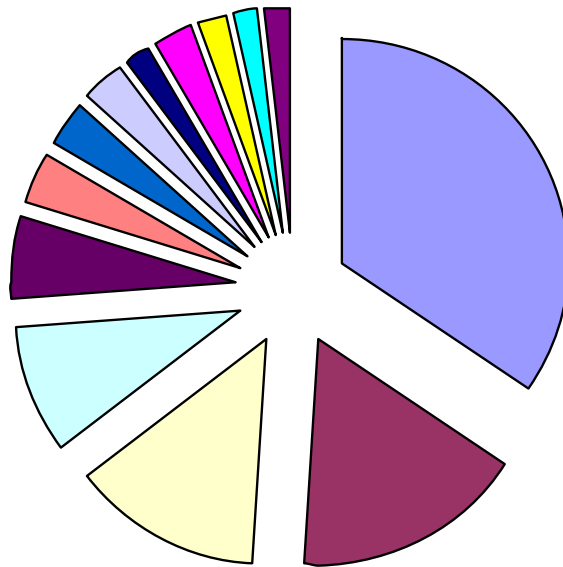
Target 1: By 2020, ... People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, ... biodiversity values are integrated into national and local development and poverty reduction strategies and planning processes and national accounts ...

Target 3: By 2020, ... incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, .

Target 4: By 2020, ... Governments, business and stakeholders have plans for sustainable production and consumption and keep the impacts resource use within safe ecological limits.

### Botswana Budget Allocations 2010 - 2011



- Education
- Local government
- Defence
- Health
- Transport
- Finance and Development
- Agriculture
- Lands
- Minerals, Energy and Water
- Trade and Industry
- Science and Technology
- State President
- Environment Wildlife and Tourism



## Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

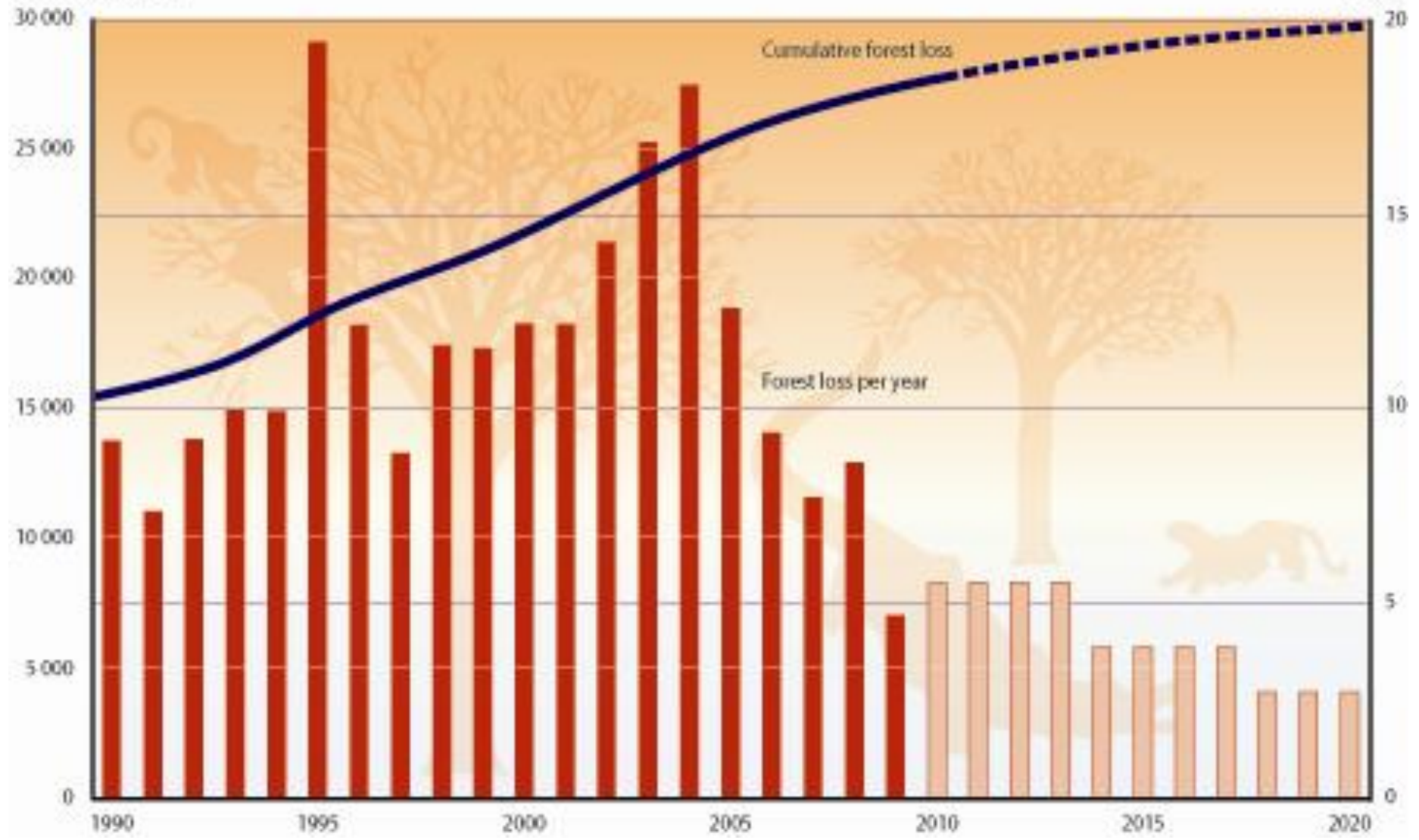
Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

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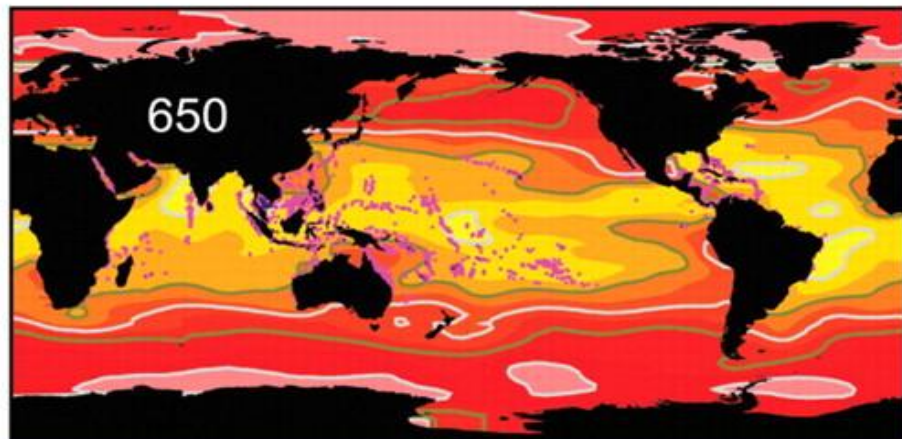
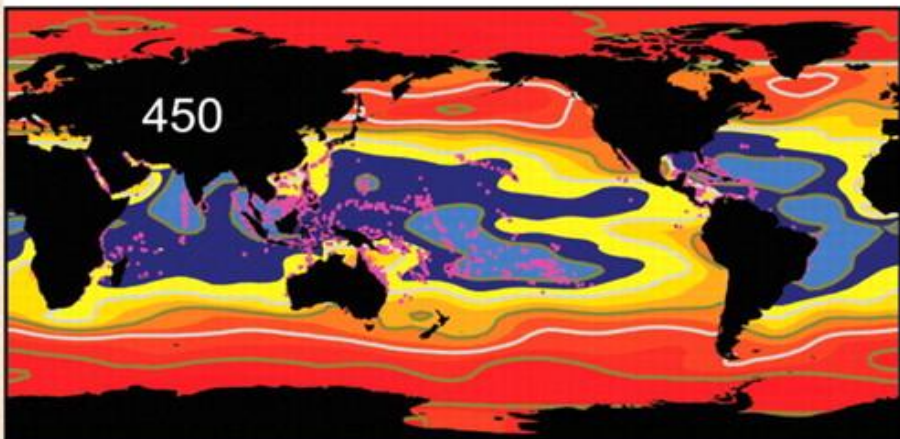
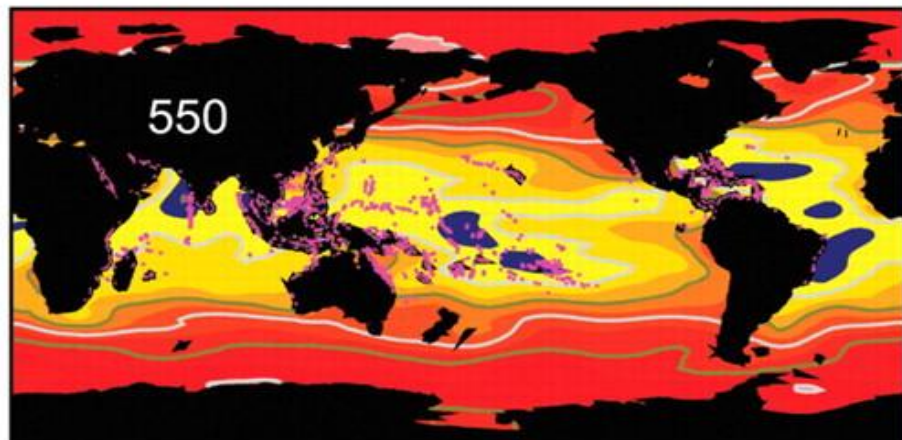
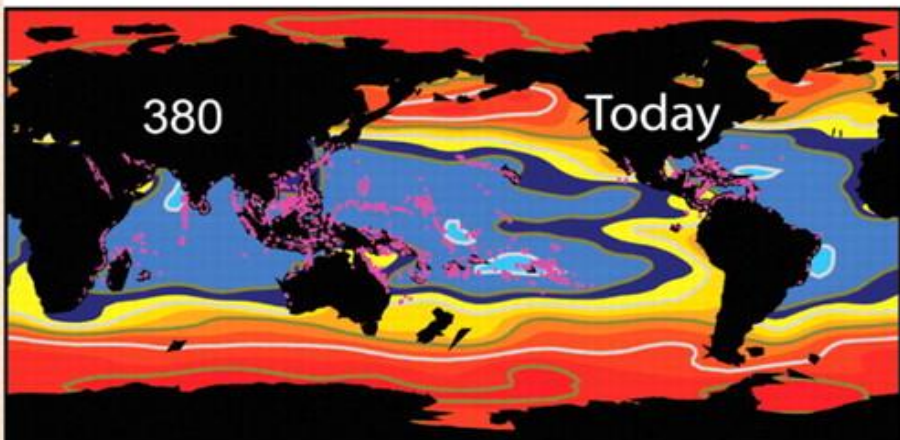
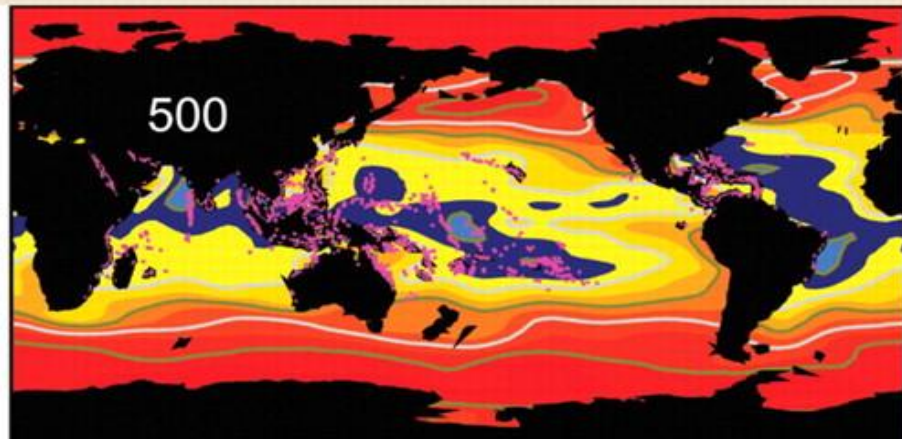
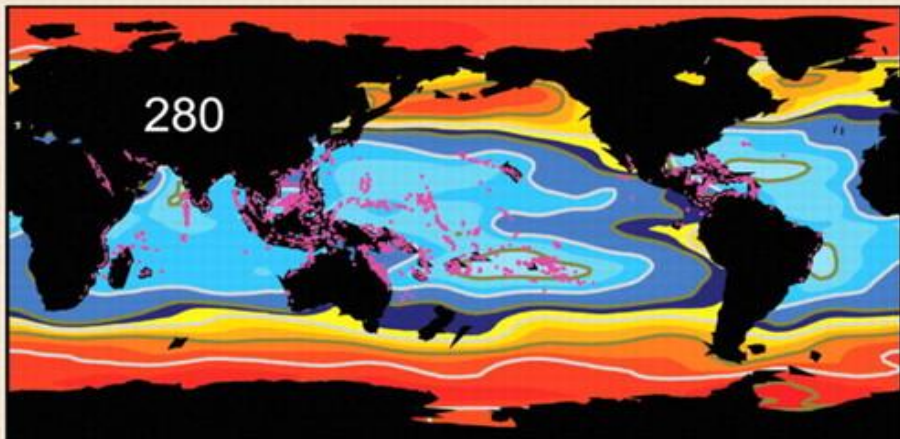
Deforestation in km<sup>2</sup>

% lost



## **Strategic goal B. Reduce the direct pressures on biodiversity and promote sustainable use**

- Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
- Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits
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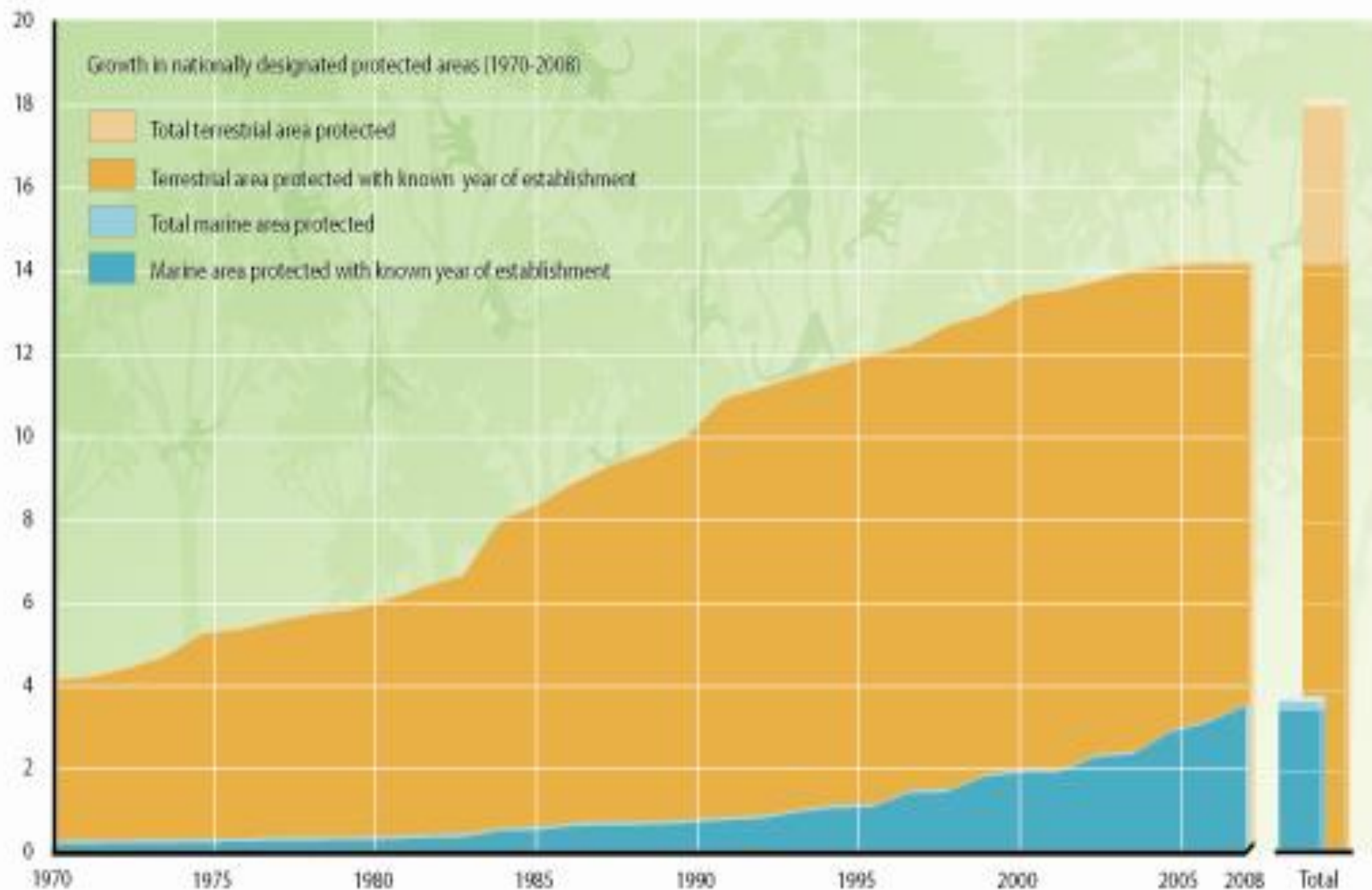
## **Strategic goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity**

**Target 11:** By 2020, at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes

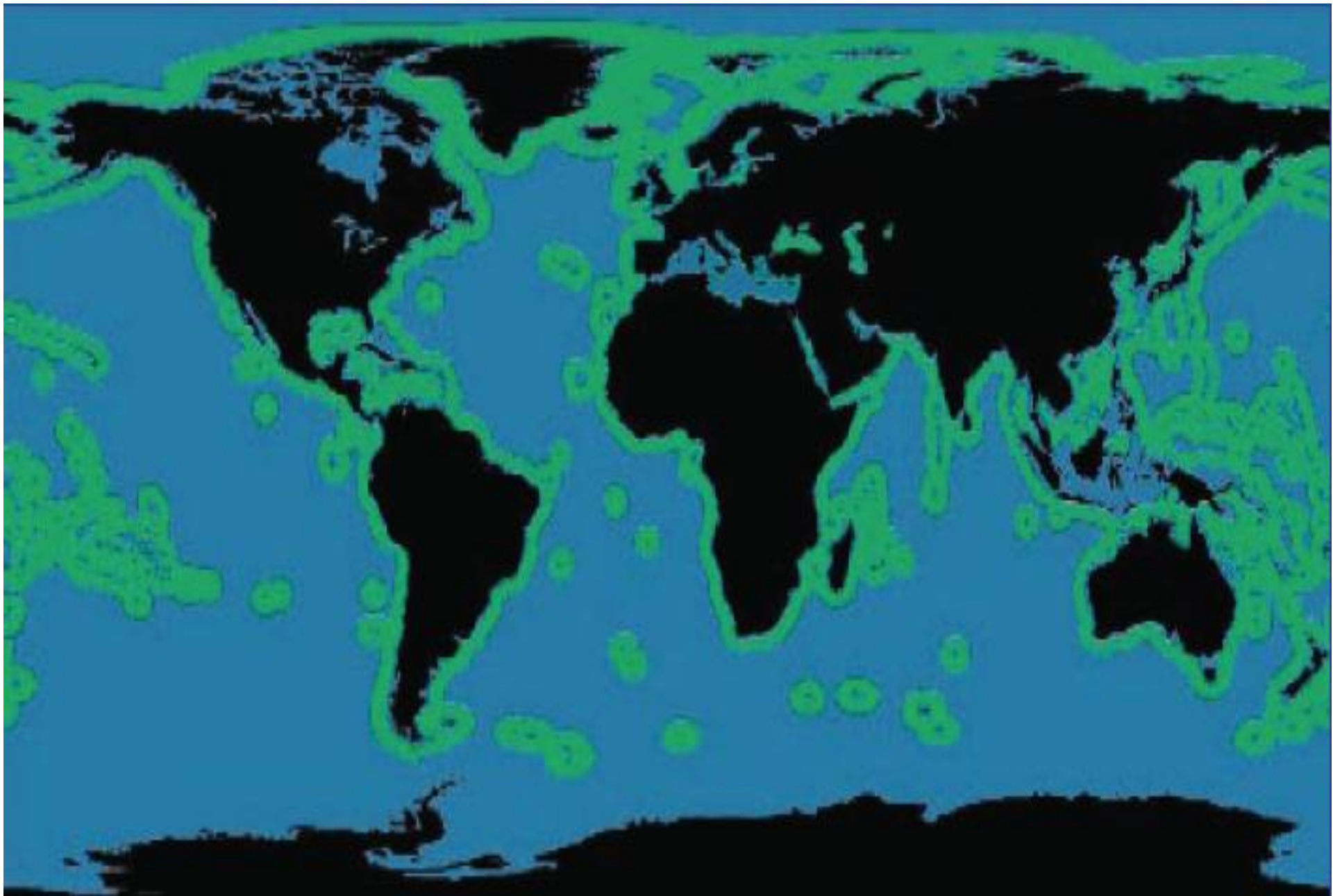
**Target 12:** By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

**Target 13:** By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives is maintained,

Millions km<sup>2</sup>



***64% of oceans lies beyond national jurisdiction***



## **Strategic goal D: Enhance the benefits to all from biodiversity and ecosystem services**

Target 14: By 2020, ecosystems that provide essential services, including services are restored and safeguarded,

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems,

Target 16: By 2015, the Nagoya Protocol on Access and Benefits Sharing is in force and operational



## **Strategic goal E. Enhance implementation through participatory planning, knowledge management and capacity building**

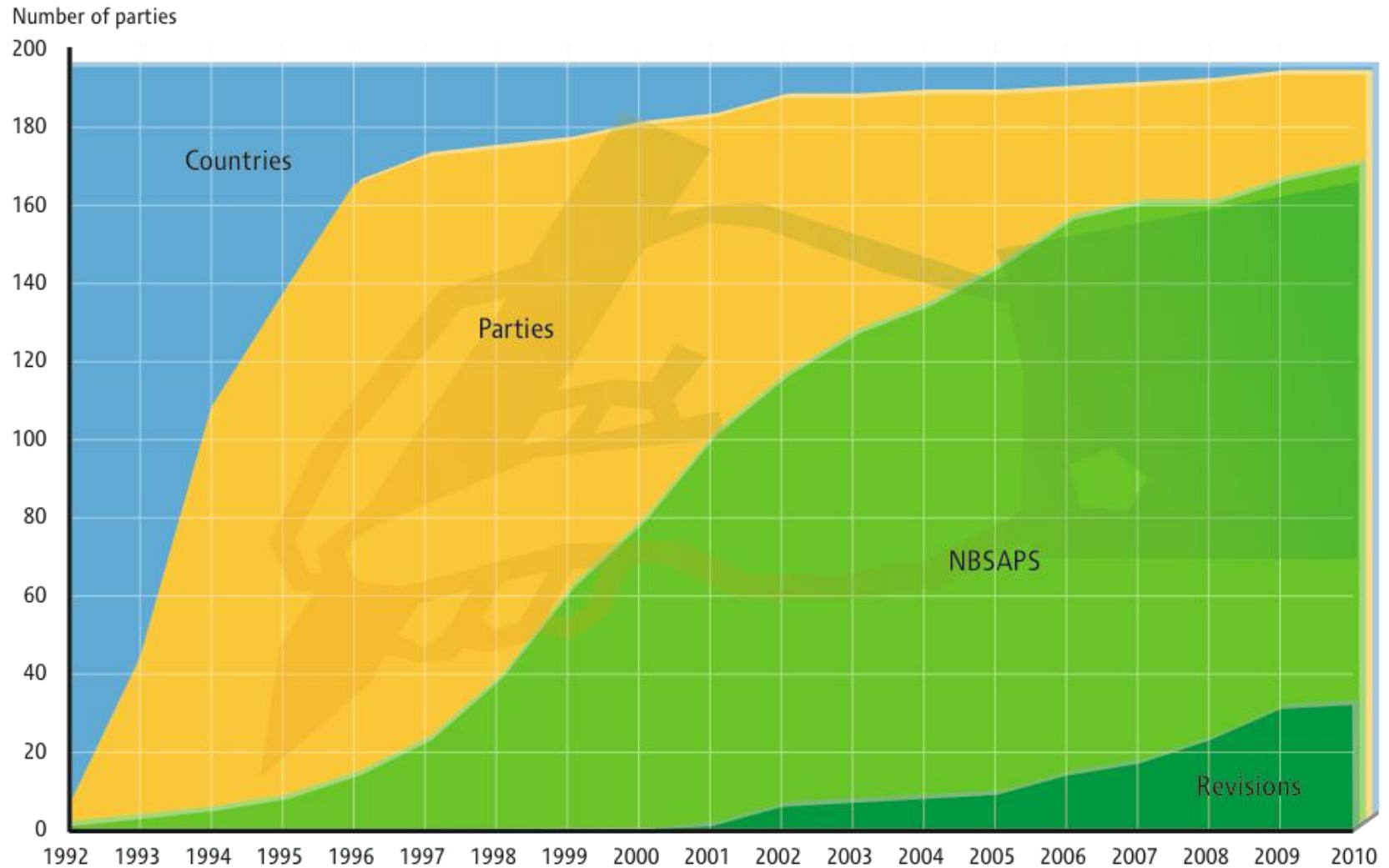
**Target 17:** By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated NBSAP.

**Target 18:** By 2020, the traditional knowledge, innovations and practices of indigenous and local communities and their customary use, are respected.

**Target 19:** By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

**Target 20:** By 2020, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources,, should increase substantially .

# National Biodiversity Strategies and Action Plans



# Mechanisms to support implementation

## **Capacity Building**

- GEF-5 support for revision of NBSAPs
- Global Support Programme (SCBD/UNEP/UNDP etc)

## **Knowledge Network:** Clearing House Mechanism and technology transfer

- National CHM nodes and central CHM
- Database and exchange of good practice, tools and guidance
- Networks of communities of practice and institutions
- Evidence-based review

## **Financial Resources**

- Targets/Indicators in COP-9 Resource Mobilization Strategy
- Innovative mechanisms

## **Initiatives to enhance cooperation**

- South-South Cooperation
- Plan of action for cities and local governments
- Engagement of Parliamentarians

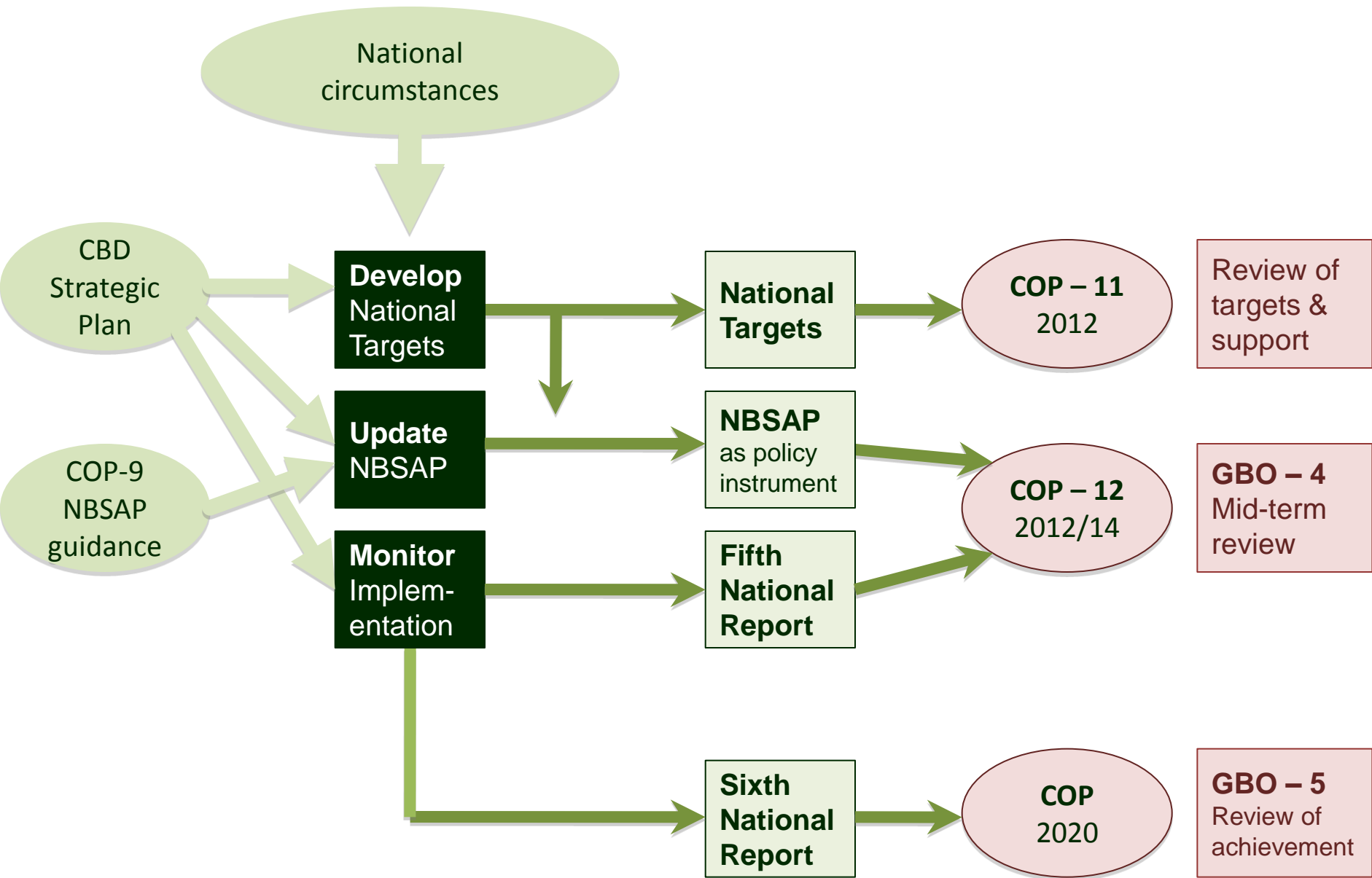
## **Supporting Mechanisms for monitoring and assessment**

- IPBES (Assessment)
- GEO-Biodiversity Observation Network
- DIVERSITAS & other global change research programmes

# Next Steps

Decision X/2 on the Strategic Plan urges Parties with the support of other organizations to:

- Enable **participation** at all levels;
- **Develop national targets by 2012**, taking into account both the global targets and the status & trends of biological diversity in the country, with a view to contributing to collective global efforts to reach the global targets, and report to COP-11;
- **Review, update and revise NBSAPs by 2014**, in line with the Strategic Plan and decision IX/9, and integrating national targets, adopt as a policy instrument, and report to COP-11 or -12 (2014);
- Use the revised and updated NBSAPs as effective instruments for the **integration** of biodiversity targets into national development and poverty reduction policies and strategies;
- **Monitor** and review the implementation of their NBSAPS making use of the set of indicators developed for the Strategic Plan and report to COP through the fifth and sixth national reports;



# Enhancing scientific and technical cooperation

Most countries are facing:

- Lack sufficient human resources capacity for the implementation of the Convention
- Responsible staff often have only limited access to the information they need and the means to analyze it
- At the same time, there is, in fact, a wealth of information, expertise, and experience among the Parties to the Convention and partner organizations

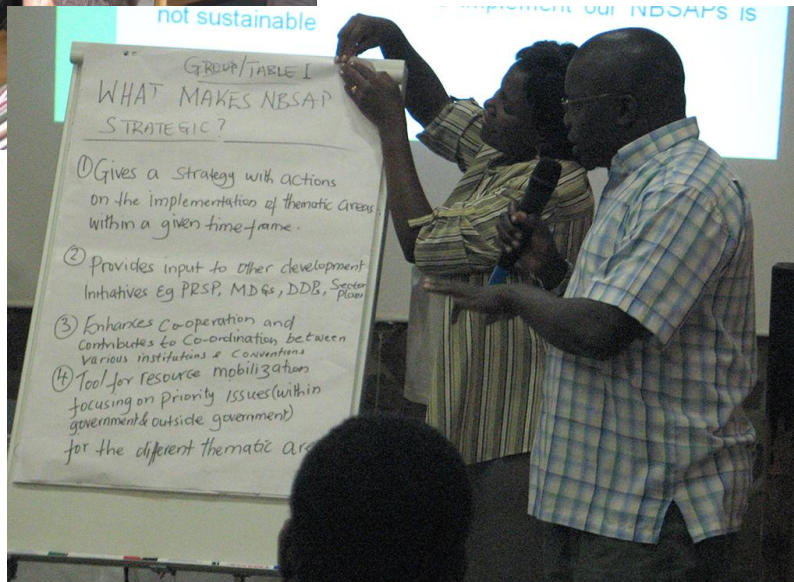
We need to:

- Enhance the Clearing-House Mechanism at global, regional and national levels
- Enhance South South Cooperation
- Build an effective network of information, expertise involving people and institutions, through a
- Partnership with all relevant organizations, eg:
  - UNEP, UNDP and the World Bank.
  - Consortium of Scientific Partners in support of the Convention

# Capacity building workshops



- To assist Parties to establish national targets in the framework of the Aichi Biodiversity Targets
- To assist Parties to integrate national targets into updated NBSAPs as effective tools for mainstreaming
- To raise awareness to stimulate early entry into force of Nagoya Protocol on ABS and Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress



## Workshops:

- South, East, SE, Asia
- South and East Africa
- Meso-America
- South America
- Europe
- Central Africa
- West Africa
- Caribbean
- Arab States
- Pacific
- Central Asia

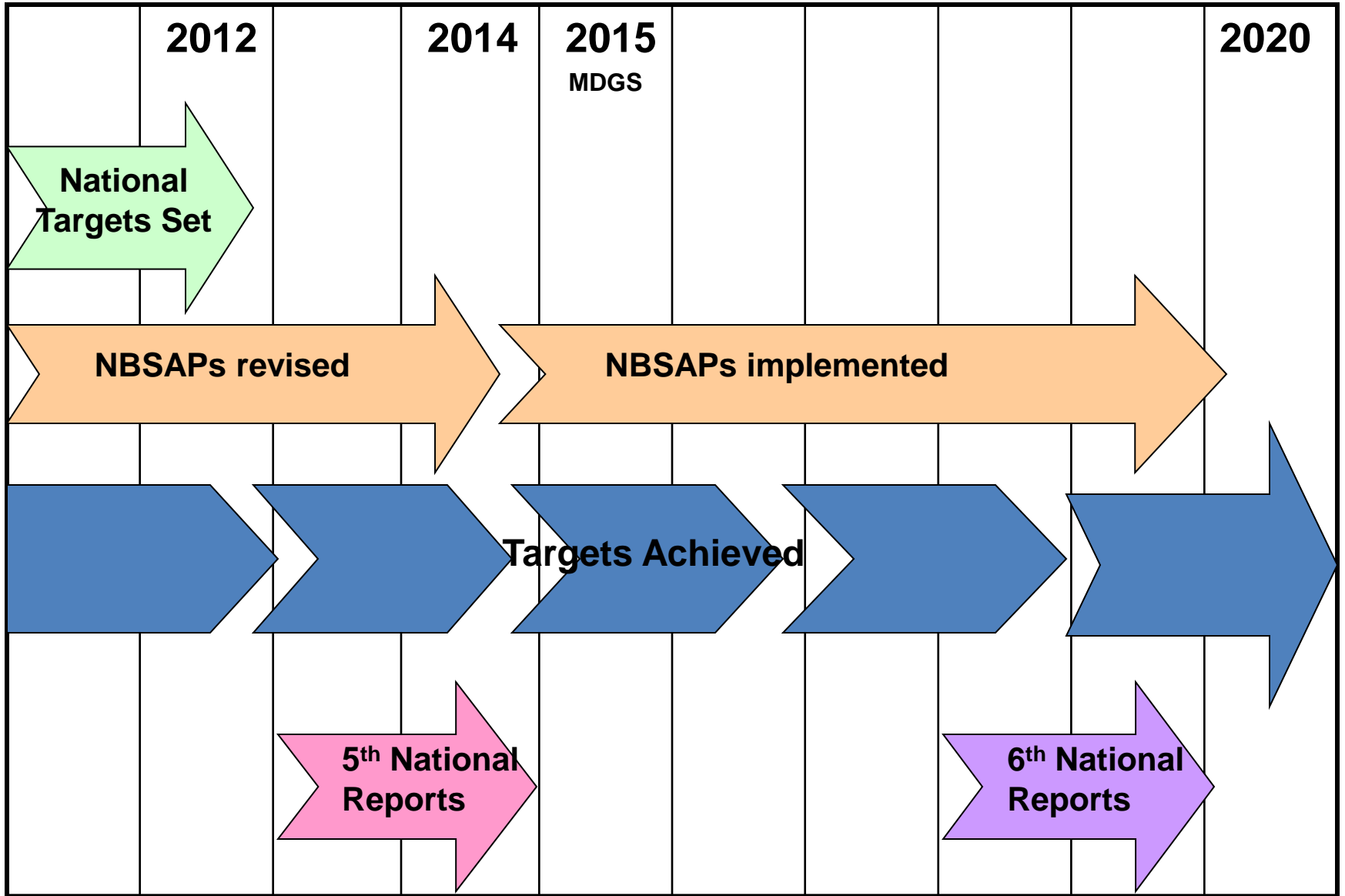
## Organized with support of

- Japan Fund
- Host countries
- Regional partners

# Capacity building workshops

<b>Region</b>	<b>Dates</b>	<b>Venue</b>
Southern Africa	14-20 March 2011	Kasane, Botswana
North Africa & the Middle East	4 – 9 April 2011	Beirut, Lebanon
Europe	15-19 April 2011	Vilm, Germany
South, SE & East Asia	9 - 16 May 2011	Xi'an, China
Amazon (preparatory mtg)	23 – 25 May 2011	Brasilia
West Africa	24 – 27 June 2011	Dakar, Senegal
East Africa	30 June – 1 July 2011	Arusha, Tanzania
Africa	4 – 8 July 2011	Addis Ababa, Ethiopia
Caribbean	30 May – 1 June 2011	Guyana
Central Africa	25 – 28 May 2011	Brazzaville
Europe (PEBLDS)	5 – 7 September 2011	Geneva
Central Asia	17 - 19 September 2011	Kazakhstan
South America	10-14 October 2011	Ecuador
Meso-America	17-21 October 2011	Costa Rica
Pacific	3 – 7 October 2011	Apia, Samoa
Mediterranean	16 – 18 January 2012	Montpellier
Asia	16 – 18 April 2012	New Delhi, India
North America	20 – 24 February 2012	Mexico
Follow-up meeting for Europe	2 – 6 April 2012	Geneva
Follow-up meeting for Africa	9 – 13 April 2012	Addis Ababa
Follow-up meeting for LAC	25 - 26 April 2012	Santiago







**CBD**

[www.cbd.int/sp/sp2010p](http://www.cbd.int/sp/sp2010p)

[www.cbd.int/nbsap](http://www.cbd.int/nbsap)