Convention on
Biological Diversity

Implementation of the Strategic Plan for Biodiversity - global status, mid-term review, overview of Targets 5, 11, 15

Capacity-building workshop for the Caribbean on ecosystem conservation and restoration to support achievement of the Aichi Biodiversity Targets

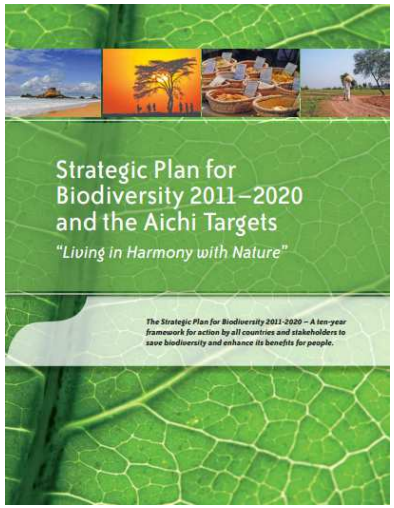
Belize City, 28 April to 2 May 2014

Sakhile Koketso
CBD Secretariat

United Nations Decade on Biodiversity

UNEP

Part 1: Overview of the Strategic Plan and the Area-based Aichi Targets



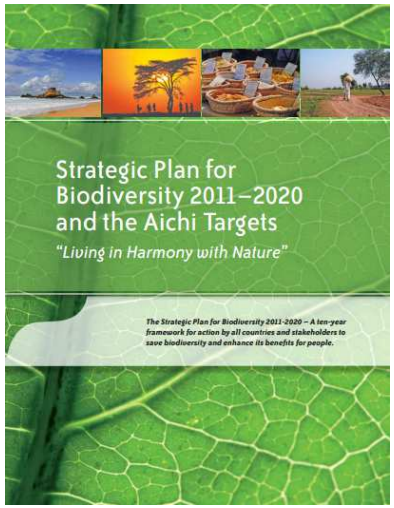
The Strategic Plan for Biodiversity 2011-2020

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



5 Strategic Goals - 20 Aichi Biodiversity Targets

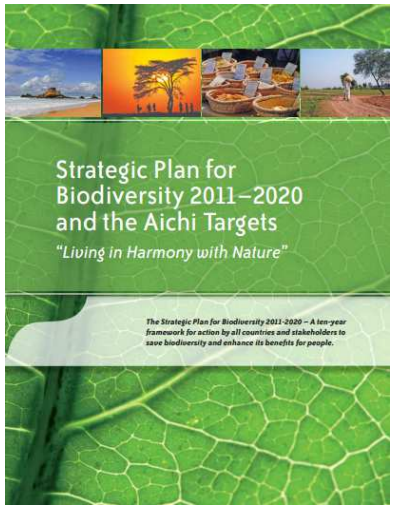
A Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

B Reduce the direct pressures on biodiversity and promote sustainable use

C To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

D Enhance the benefits to all from biodiversity and ecosystem services

E Enhance implementation through participatory planning, knowledge management and capacity building



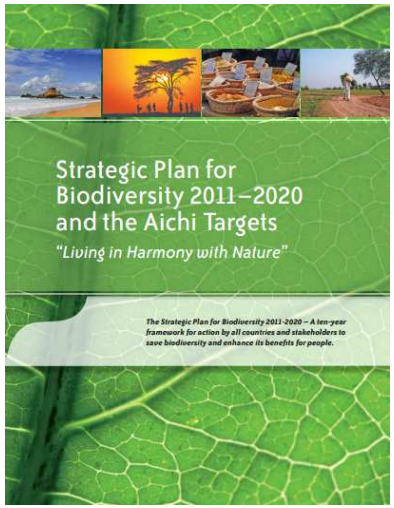
Decision X/ 2 which adopted the Strategic Plan for Biodiversity 2011-2020 urged Parties to:

Develop national targets taking into account national circumstances

Review, update and revise National Biodiversity Strategies and Action Plans, in line with the Strategic Plan

Monitor and review the implementation of their NBSAPS… and report to COP through the fifth (2014) and sixth national reports

Strategic Plan for Biodiversity 2011-2020 - Area based Aichi Targets



Aichi 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.

Aichi Target 11

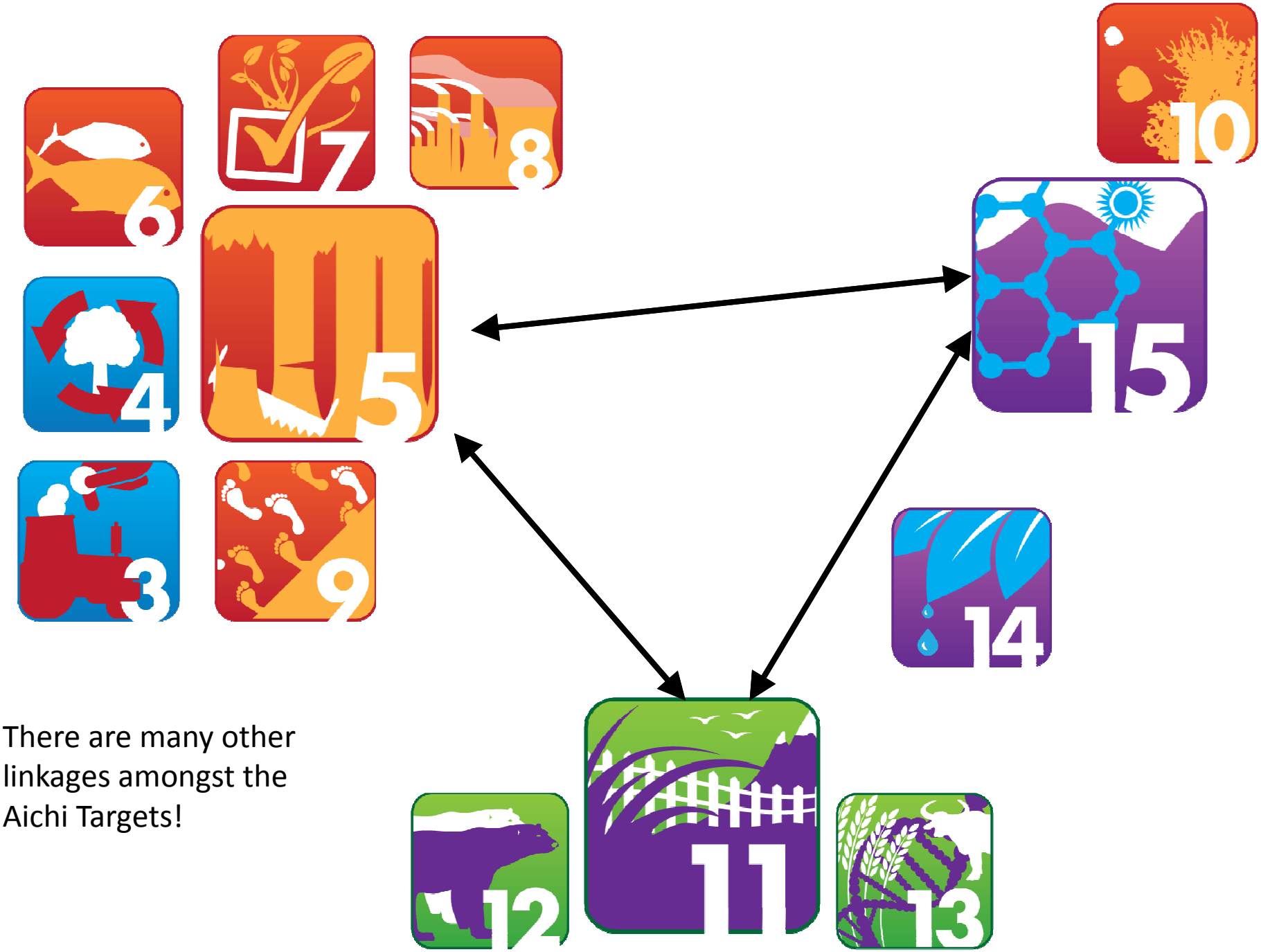
By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems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

Aichi Target 15

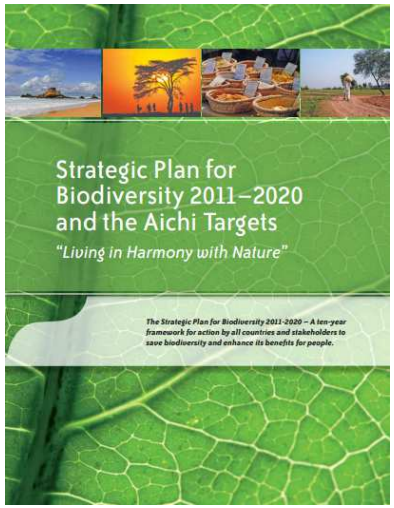
By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Why an integrated approach to Targets 5, 11 and 15?

- Reducing the rate of loss of biodiversity, conservation and restoration of biodiversity are just different facets of the same problem which should be solved in an integrated manner
- Targets 5, 11 and 15 set quantitative global targets to reduce the loss of natural habitats, restore degraded areas and improve protected area networks
- These targets, like so many others, are inter-related and achieving one of them will help with achieving others
- There is a need for a coherent approach to the achievement of these targets which will also contribute toward achieving many other Aichi Targets (e.g. targets 7, 12, 13, and 14)



There are many other linkages amongst the Aichi Targets!



Progress in achieving Aichi Targets 5, 11 and 15:

- Since COP-10, the Secretariat has received 21 NBSAPs (15 revised, 6 first) which reflect the Strategic Plan to varying degrees.
- National targets based on the Aichi Targets have been framed as part of the revised/ updated NBSAPs
- Due to the success of PoWPA, countries are more advanced in their work under Target 11, with many actions ready for implementation
- Targets 5 and 15 are not as well advanced as Target 11, therefore we need to implement lessons learned from Target 11 success to these other targets so we can all achieve them

Part 2: Habitat loss, degradation and fragmentation and ecosystem restoration

Aichi 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.

Aichi 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.

Global Biodiversity Outlook 3

Global Status and Trends in Biodiversity

According to the Third Global Biodiversity Assessment (GBO-3):

→ Terrestrial ecosystems are on the decline e.g.

→*savannas and grasslands* are experiencing severe declines. Greatest losses are experienced in North America, Brazil and Southern Africa (Miombo woodlands).

→ Inland water ecosystems are also at high risk with wetlands being lost at a rapid rate, and although trends are variable, on the whole water quality is being threatened by pollution. Fragmentation is also a big problem.

→ Marine and coastal ecosystems continue to decline. Coastal habitats are under pressure from development and pollution; mangroves continue to decline albeit at a slower rate; deep water ecosystems are under threat

Global Biodiversity Outlook 3

According to the Third Global Biodiversity Assessment (GBO-3) and the Living Planet Report (2010):

→ Wild vertebrate populations decreased overall by 30% in the period between 1970 – 2007; sharper declines in the tropics (59%) and freshwater systems (41%); temperate species are on the increase (29%)

→ All species that have been assessed for their risk of extinction are in fact being pushed closer to extinction; between 12% and 55% of selected vertebrate, invertebrate and plant groups are currently threatened with extinction

→ Species of birds and mammals used for food and medicinal purposes are most at risk

Global Biodiversity Outlook 3

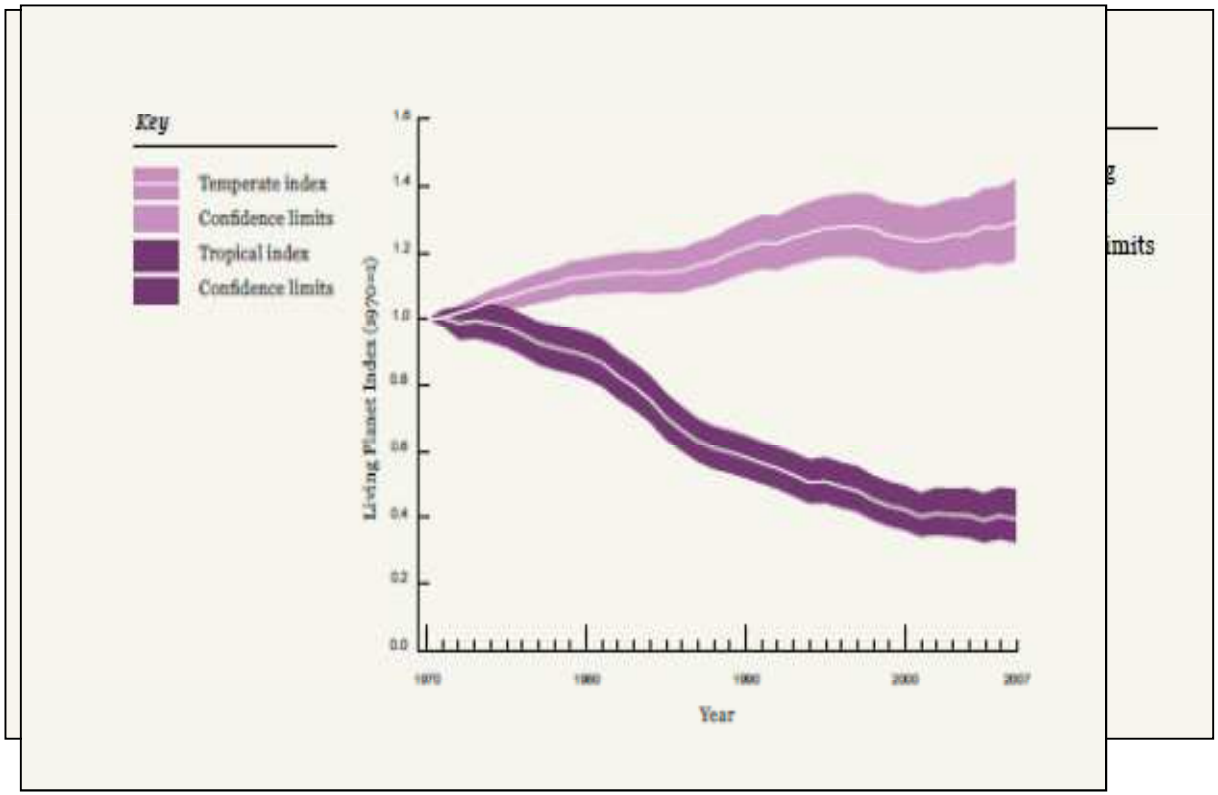
Status and trends of the components of biological diversity

↙	**habitats**	❀❀
↙	**Trends in abundance and distribution of selected species**	Most species with limited population size and distribution are being further reduced, while some common and invasive species become more common. ❀❀❀ (but limited number of taxa assessed)
↙	**Change in status of threatened species**	The risk of extinction increases for many threatened species, although some species recovery programmes have been very successful. ❀❀❀ (for those species assessed)
↙	**Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socio-economic importance**	It is likely that the genetic variety of cultivated species is declining, but the extent of such decline and its overall impacts are not well understood. ❀ (although many case studies with a high degree of certainty are available)
↗	**Coverage of protected areas**	There has been a significant increase in coverage of protected areas, both terrestrial and marine, over the past decade. However, many ecological regions, particularly in marine ecosystems, remain underprotected, and the management effectiveness of protected areas remains variable. ❀❀❀

Convention on Biological Diversity

www.cbd.int/sp/targets

The Convention Cartagena Protocol Nagoya Protocol Programmes Information Secretariat



- The WWF's Living Planet Index shows an overall decline in species of birds, mammals, fish, reptiles and amphibians of 30% (1970 – 2007)

Drivers of change

The Millennium Ecosystem Assessment recognizes 5 main (global) drivers of biodiversity loss:

- Habitat loss, degradation and fragmentation
- Over-exploitation of wild species
- Pollution
- Climate change
- Invasive alien species

Global Biodiversity Outlook 3

Habitat Loss, Degradation and Fragmentation

- It is considered the number one and most pervasive anthropogenic cause of biodiversity loss
- Impacts on biodiversity are high in areas where high human population/ activity coincides with areas of high biodiversity value;
- Most commonly occurs as a result of human settlements, agricultural cultivation and human industrial activity
- Declines are continuing in such diverse habitats as forests, grasslands, shrublands and wetlands
- Habitat fragmentation is a serious issue for many species: small fragments can only support small numbers of species leading to extinctions
- Fragmentation can also alter the structure of habitats making them less suitable for some species

The case of forests:

- Target 5 states that rate of loss of natural habitats, including forests, should be halved…
- Primary forests account for 36% of forest area
- Since 2000 - decline by more than 40 million ha
  Reclassification of primary forest (36%) to "other naturally regenerated forest" (57%).
- More than one-third of all forest is primary forest
  o*Forest of native species where there are no clearly visible indications of human activities and the ecological processes have not been significantly disturbed*
- Most species-rich, diverse terrestrial ecosystems

The case of forests:

Deforestation

- Responsible for between 18 and 25% of annual GHG emissions
- 13 million hectares of forest lost each year *(FRA 2010)*
- 16 million hectares per year: 1990–2000 *(FRA 2010)*
- Deforestation hotspots: Indonesia, Malaysia, Nigeria (highest btw 2000 & 2005), Brazil (highest overall area since 2000); Australia (severe drought and forest fires exacerbated lost since 2000)
- **Main direct drivers**: agricultural expansion (including biofuels), logging, mining, infrastructure development

The case of forests:

Underlying causes

- **Demographics:** Population pressure, growth and density
- **Market failures:** Perverse incentives, undervalued resources
- **Governance failures:** Insecure land tenure rights; decision-making and land use planning; accountability and transparency
- **Conflict policies**
- **Other Causes- pests, diseases, natural disasters and invasive species**

Aichi 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, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Aichi Target 15

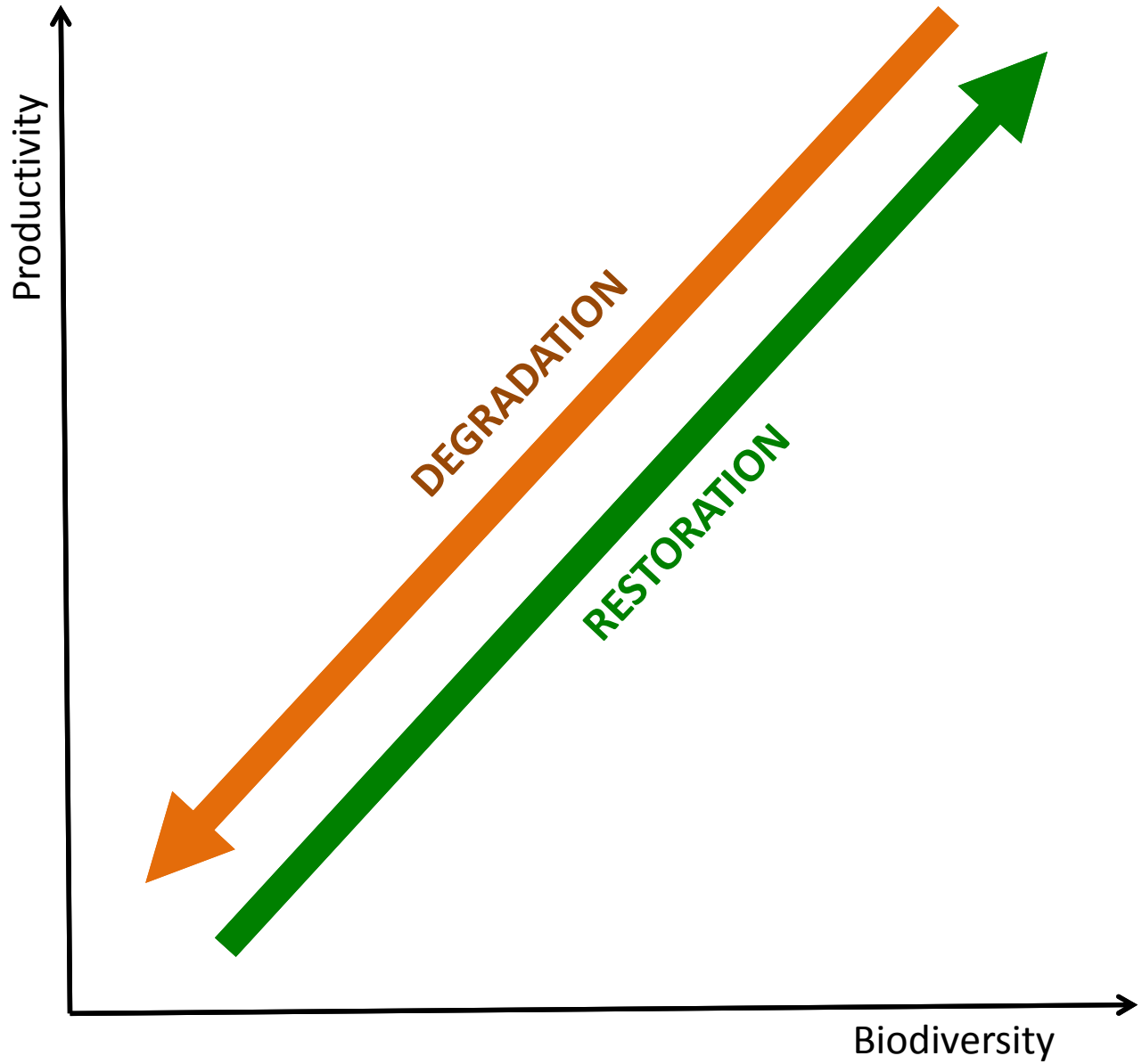
By 2020, *ecosystem resilience* and the contribution of biodiversity to carbon stocks has been enhanced, *through conservation and restoration*, including *restoration of at least 15 per cent of degraded ecosystems*, thereby contributing to climate change *mitigation* and *adaptation* and to *combating desertification*.

Defining degradation

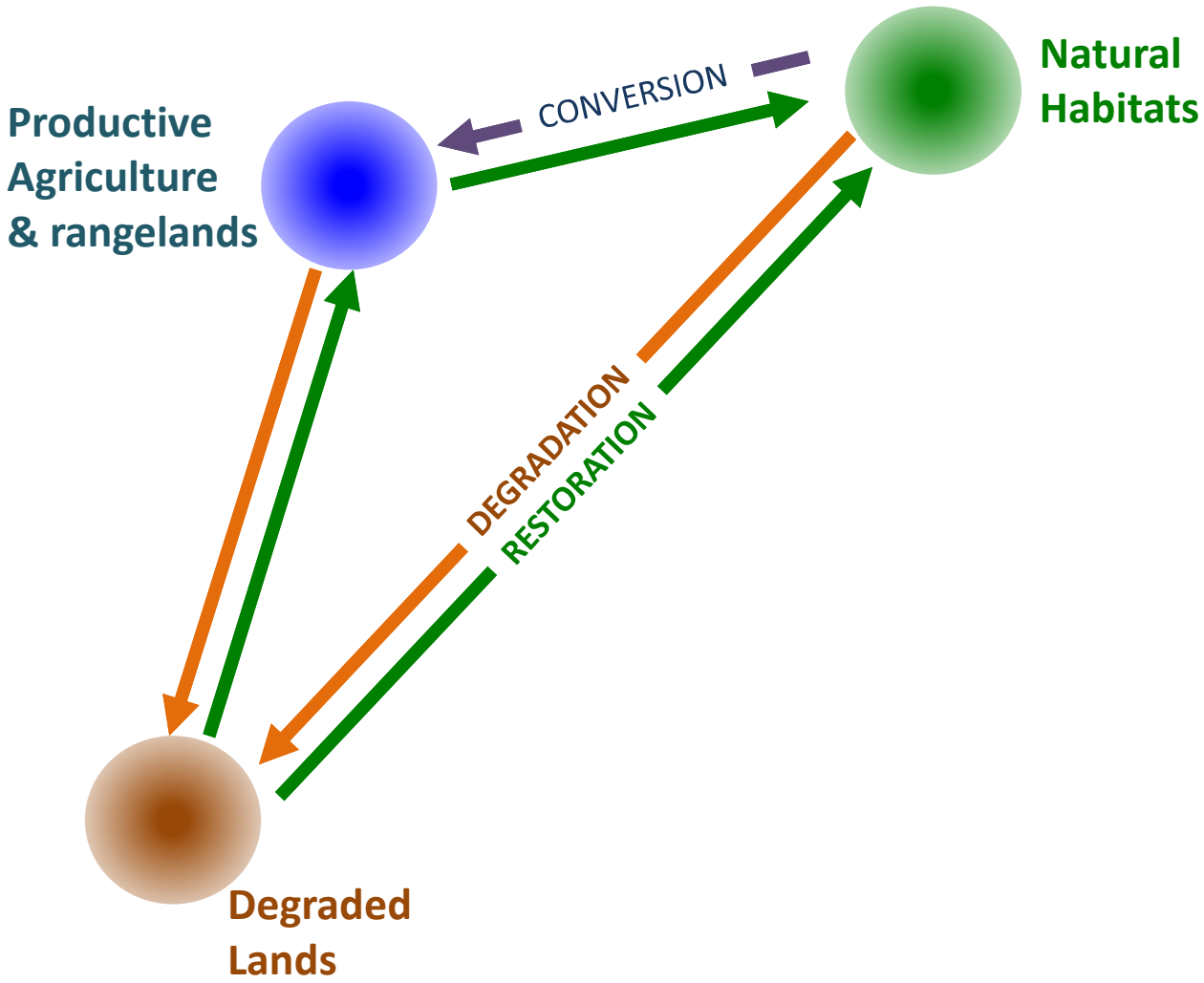
Is most often context specific but entails:

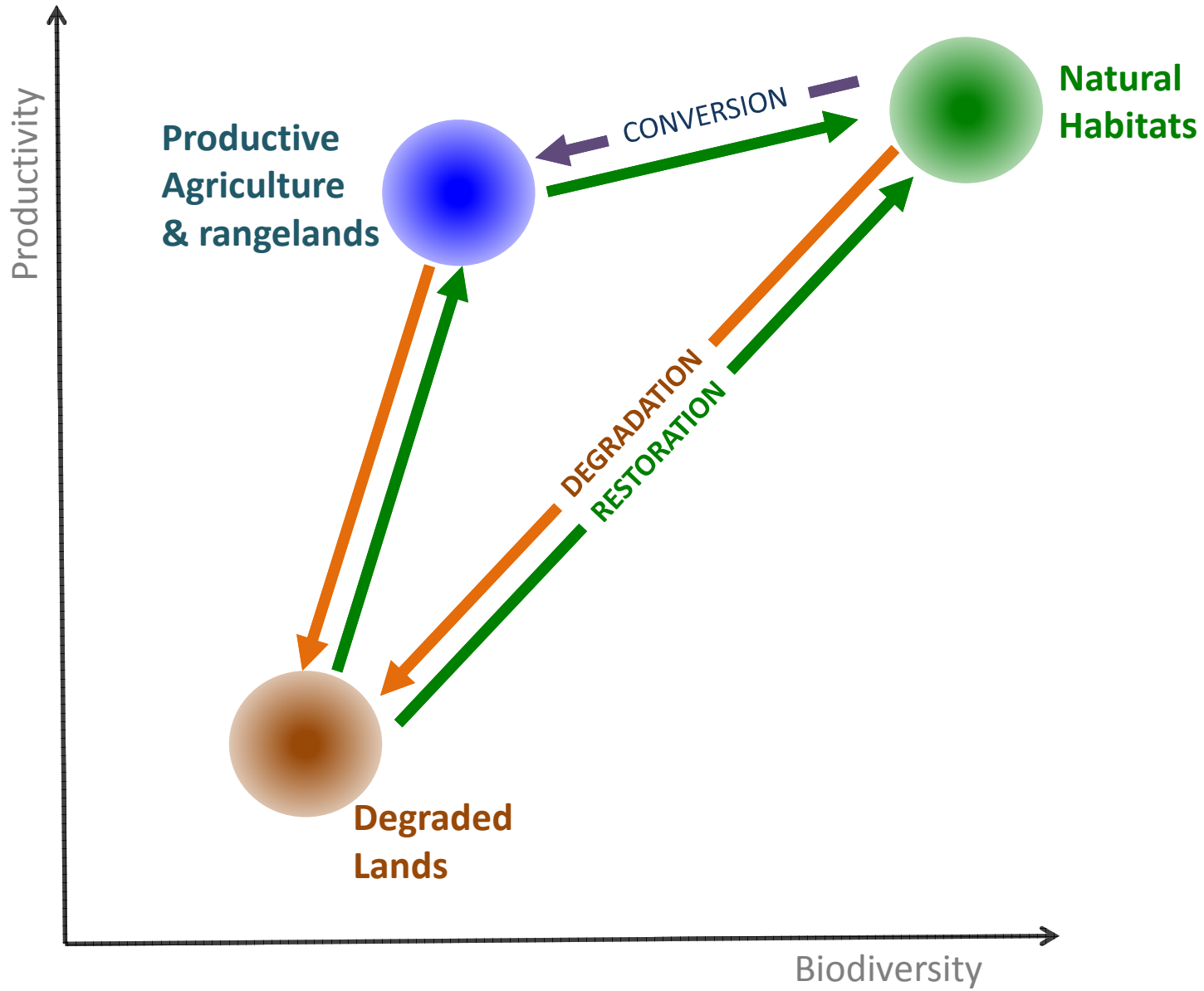
- Loss of biodiversity
- Temporary or permanent reduction in productive capacity of land (soil nutrients, vegetative cover, productive capacity) and other loss or impairment of ecosystem function and services
- Decreased resilience

Is both a state, and a process

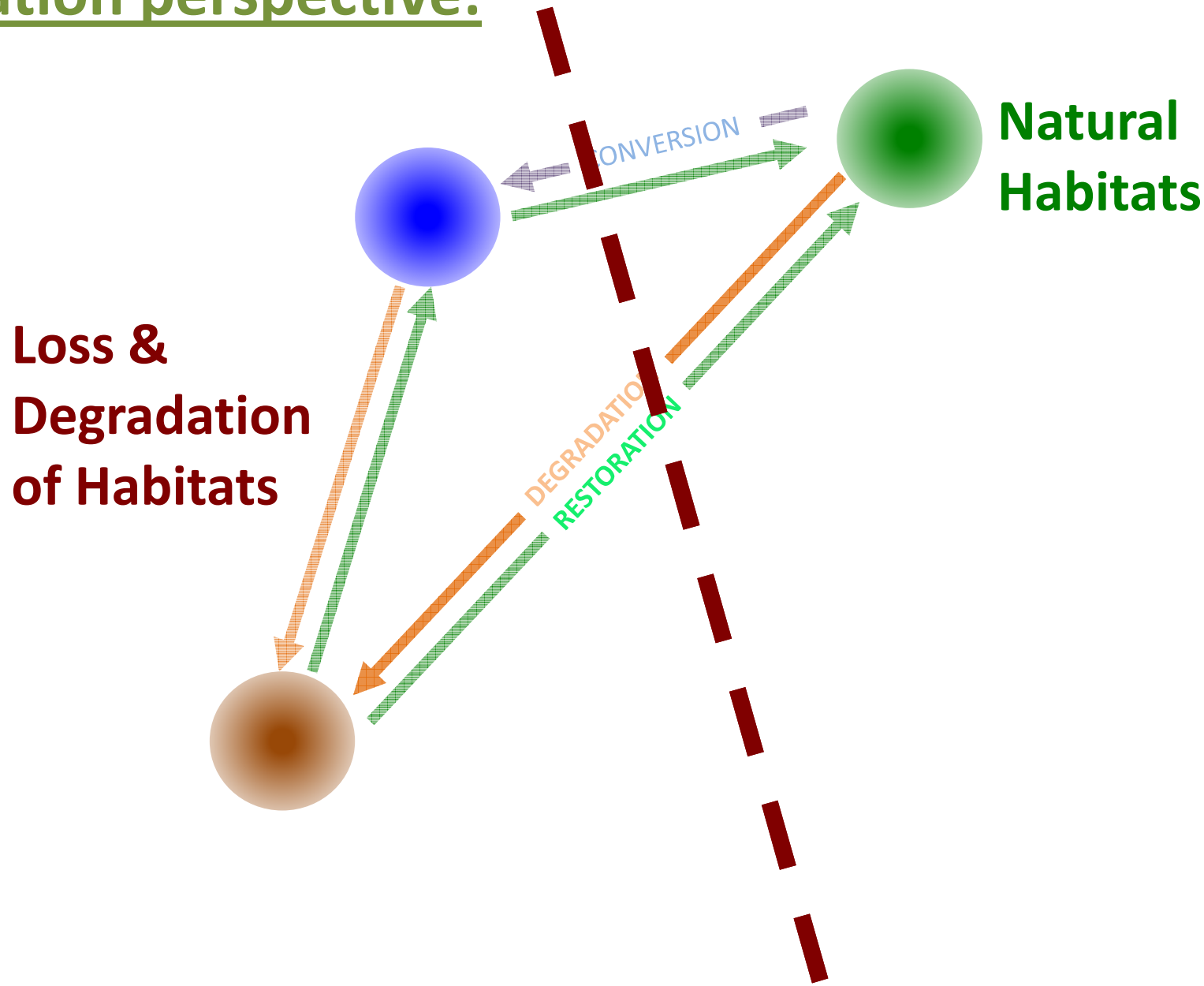

Productivity
DEGRADATION
RESTORATION
Biodiversity

Land use change, degradation and restoration

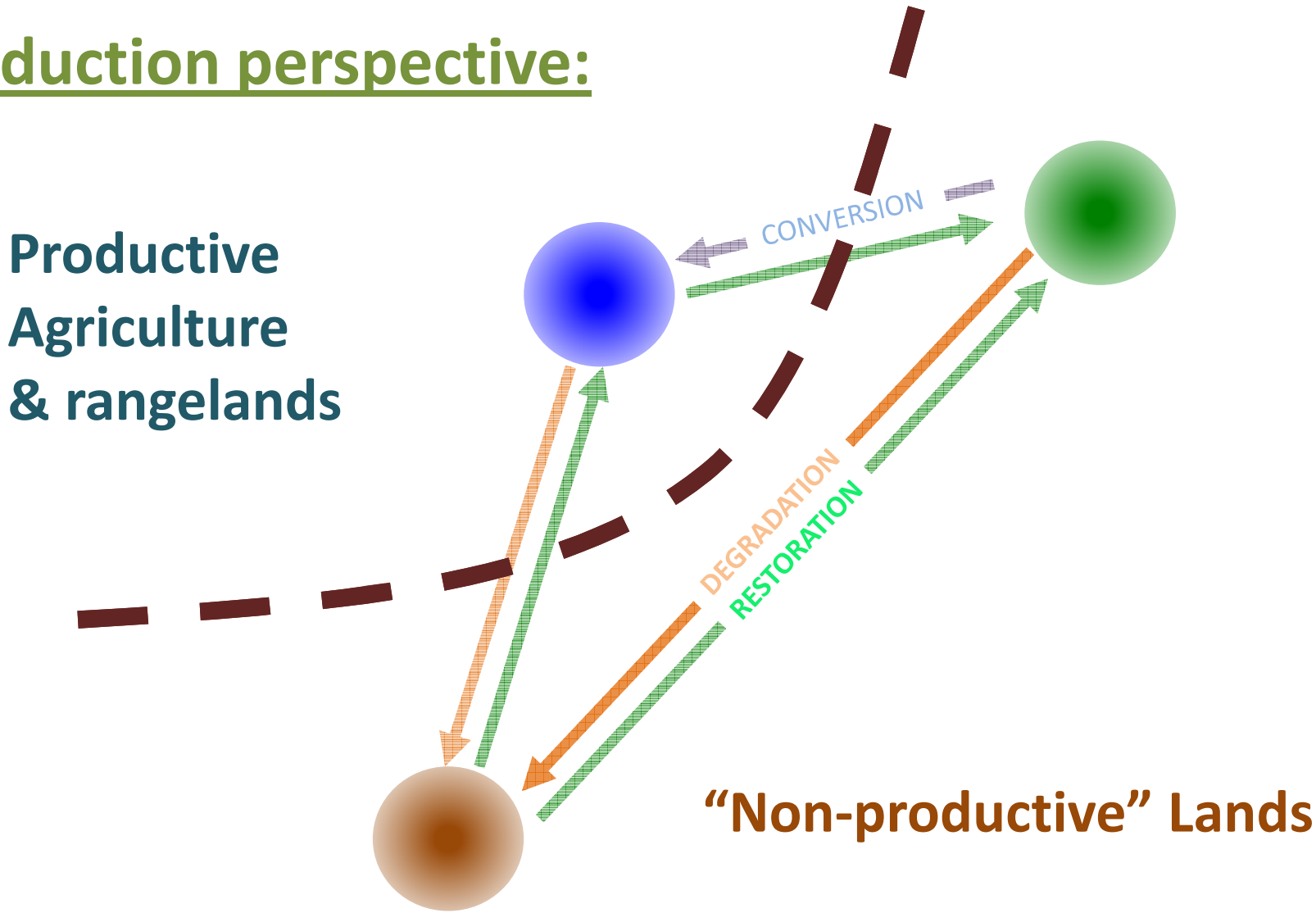



Productivity
Biodiversity
Productive
Agriculture
& rangelands
Natural
Habitats
Degraded
Lands
CONVERSION
DEGRADATION
RESTORATION

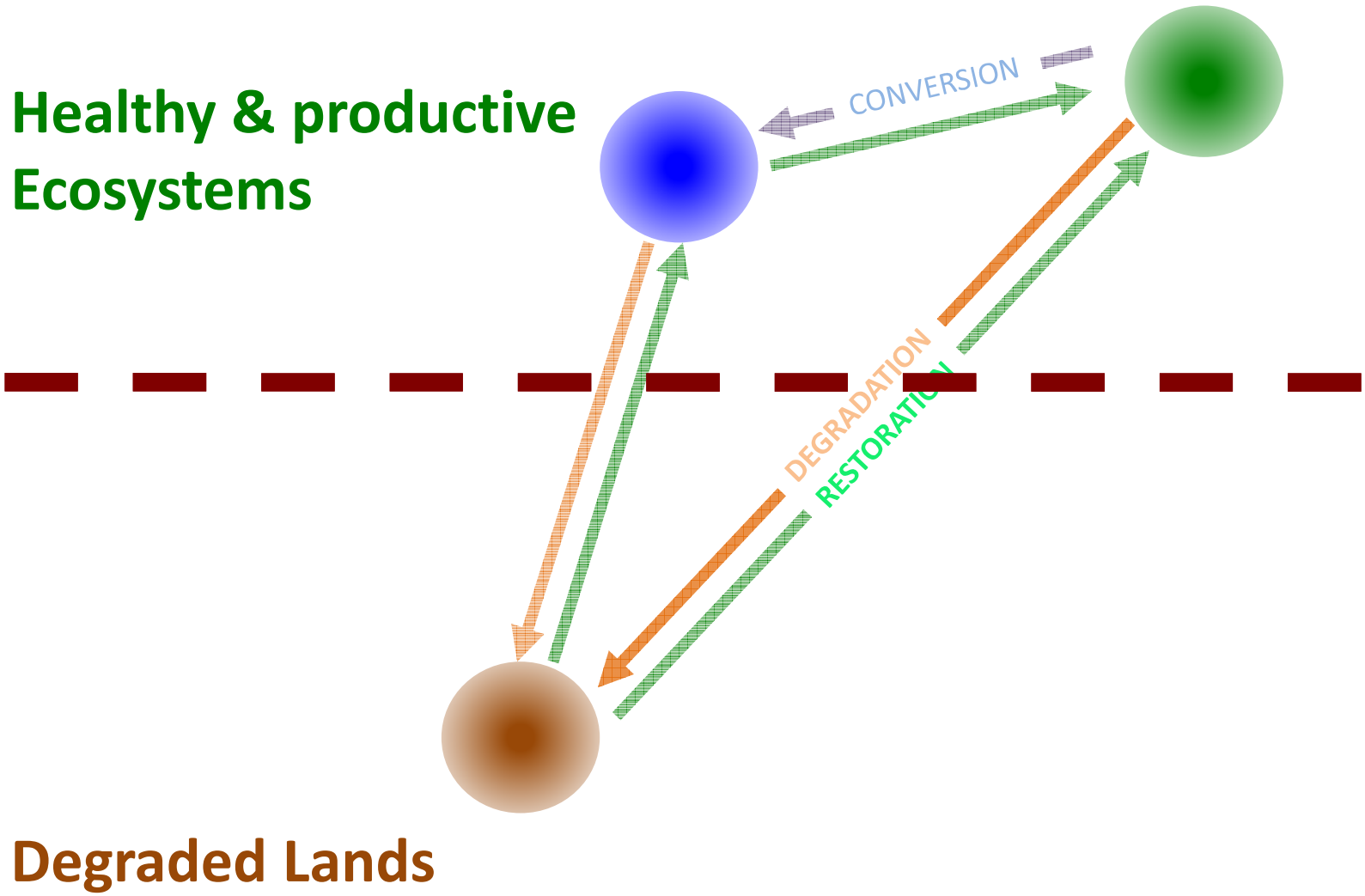
Conservation perspective:

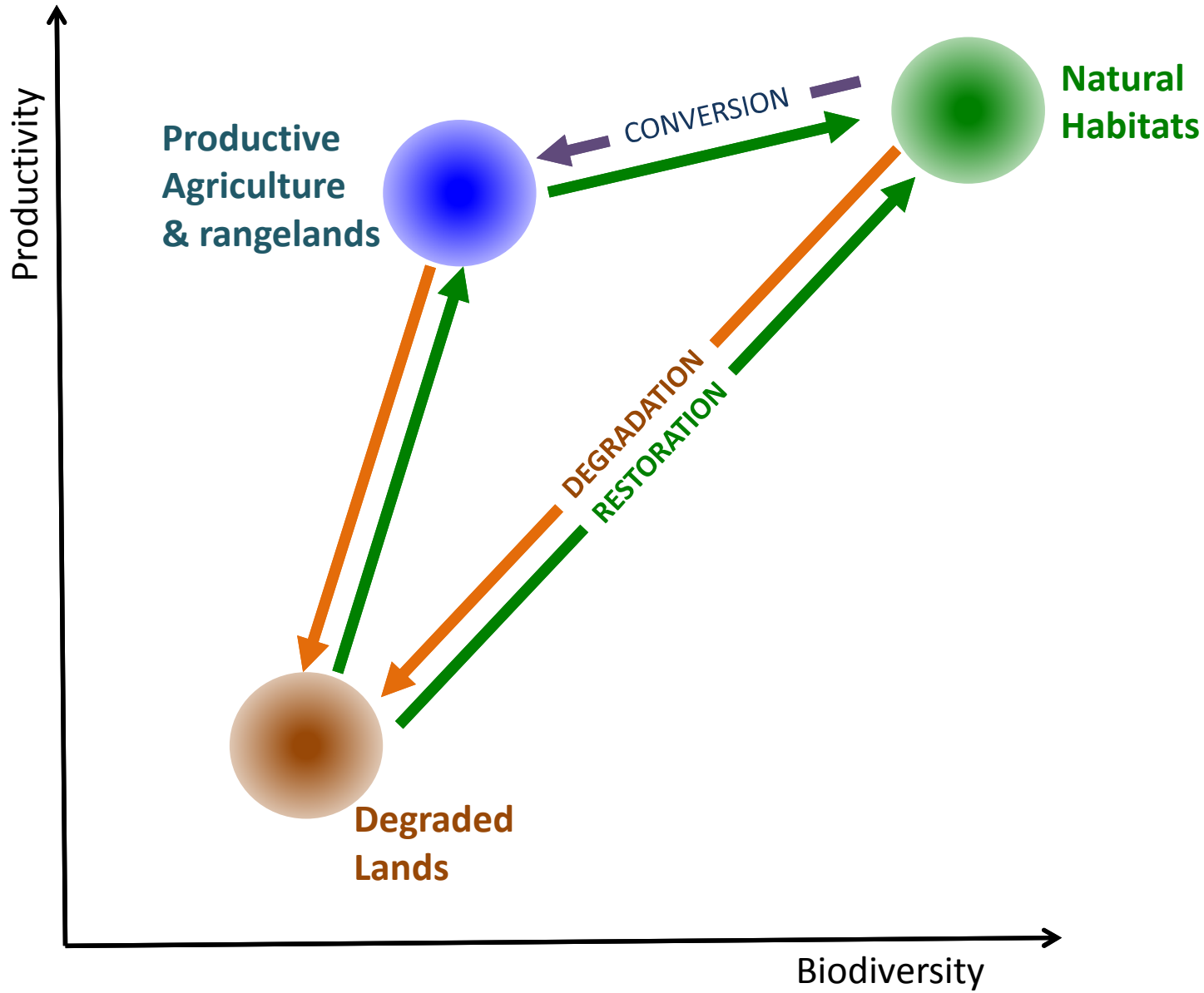


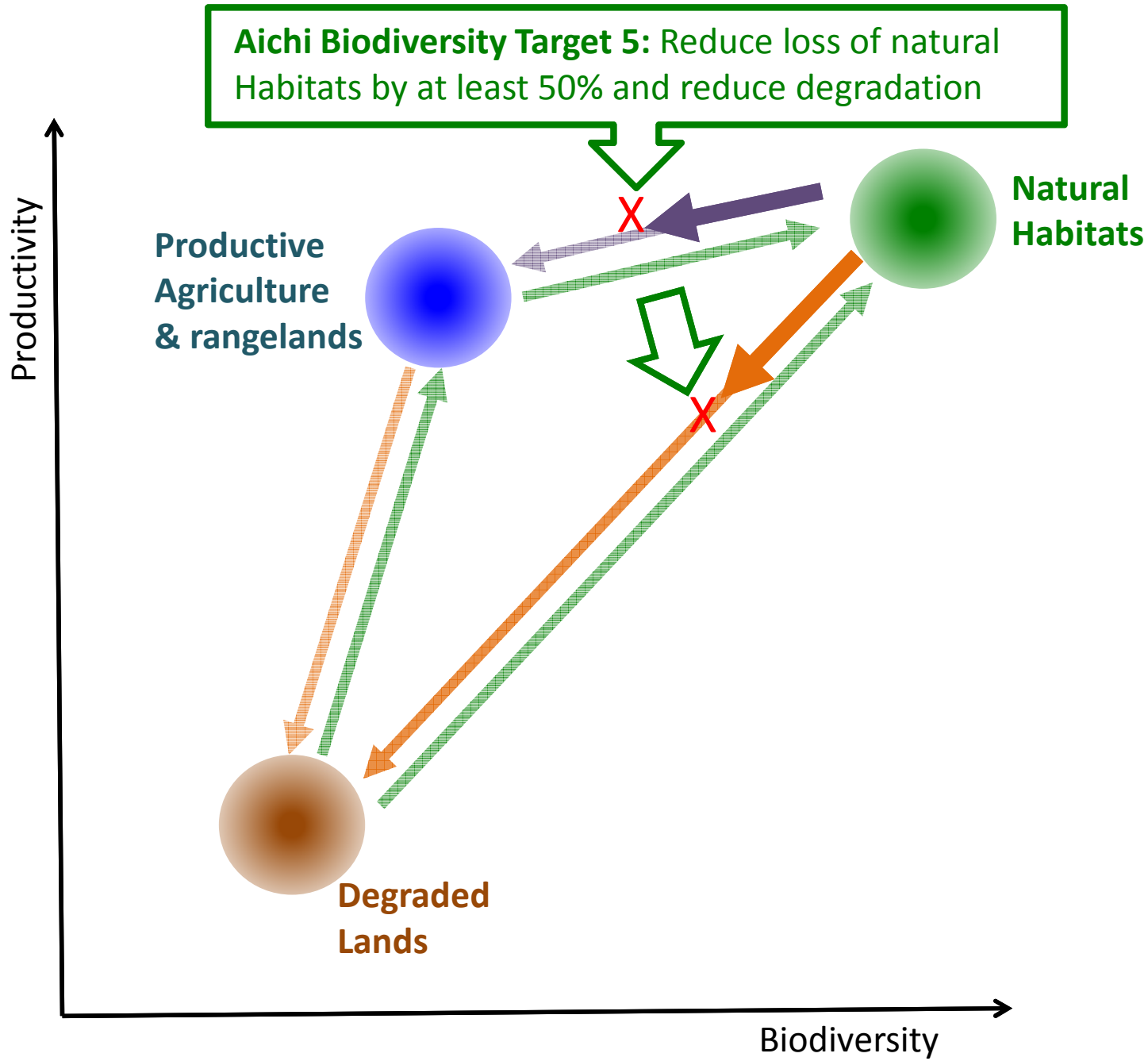
Production perspective:

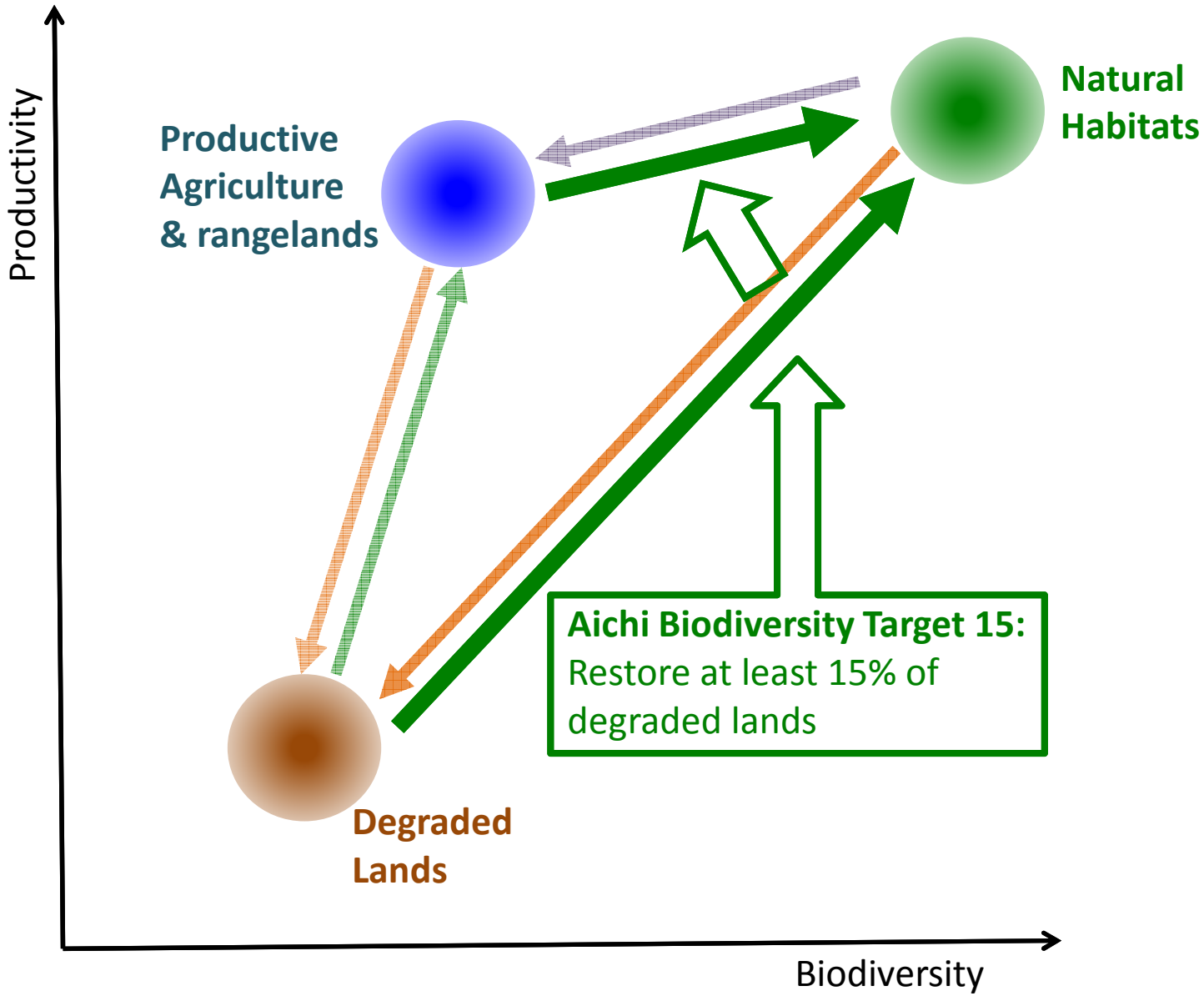


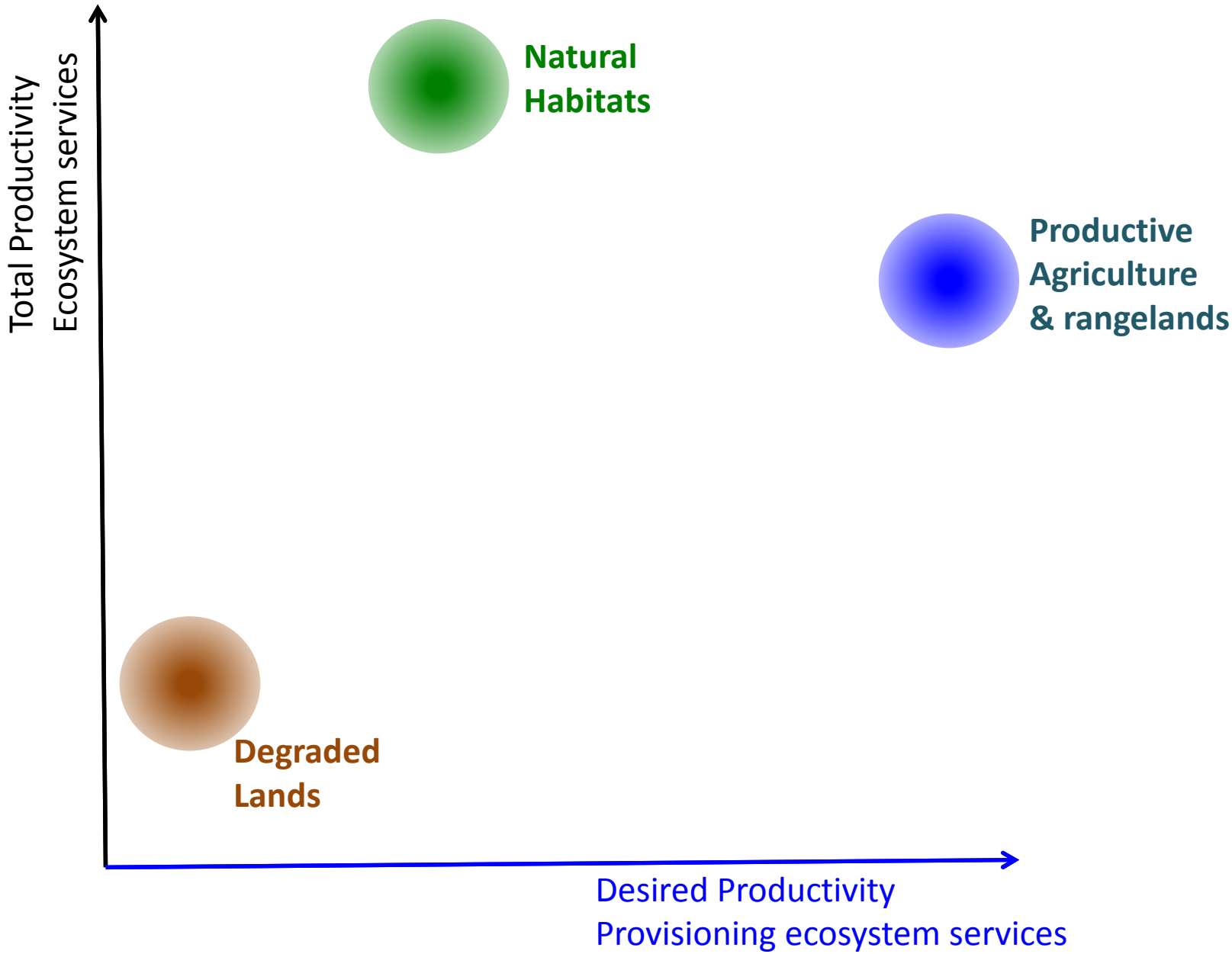
Common perspective:

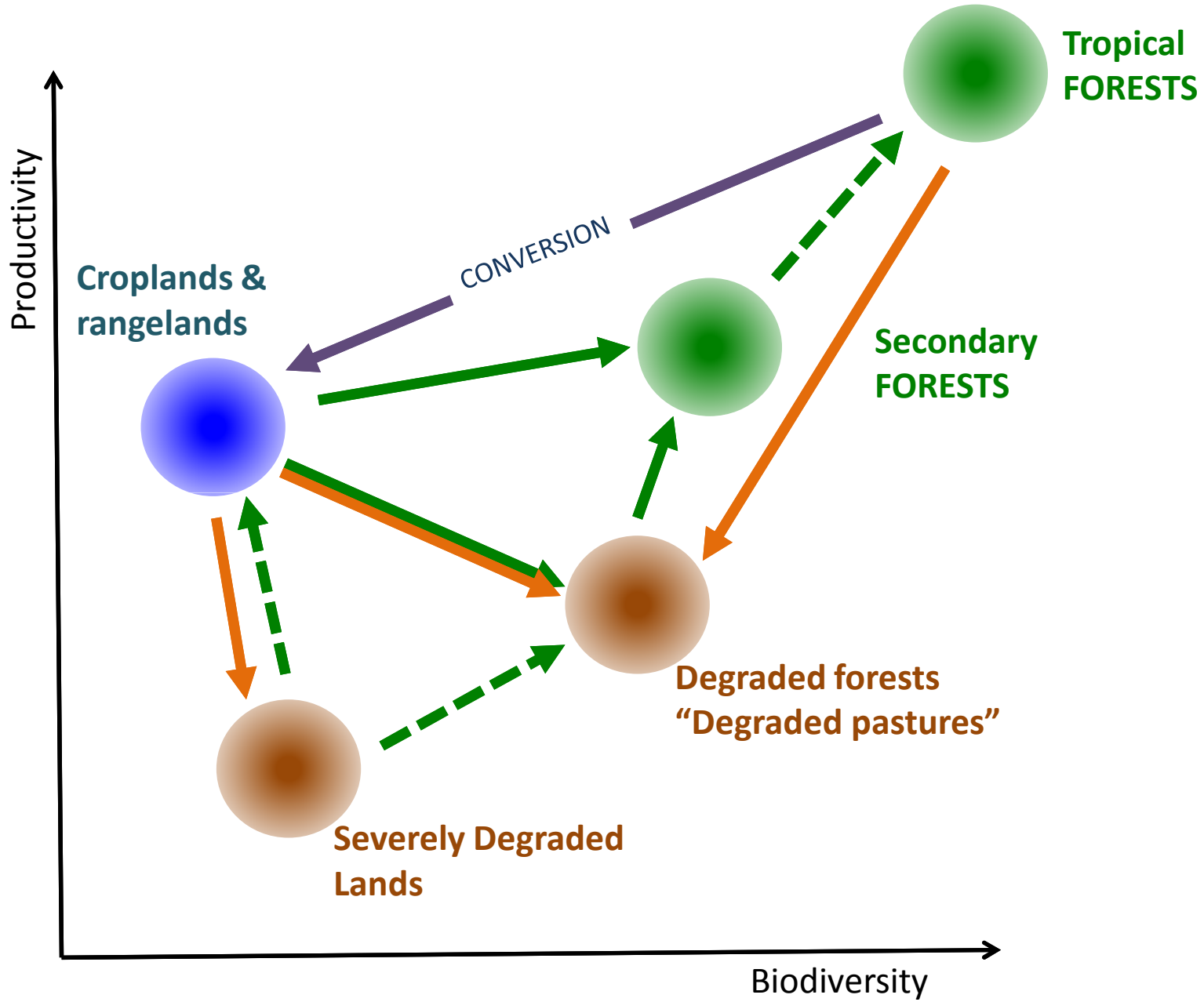


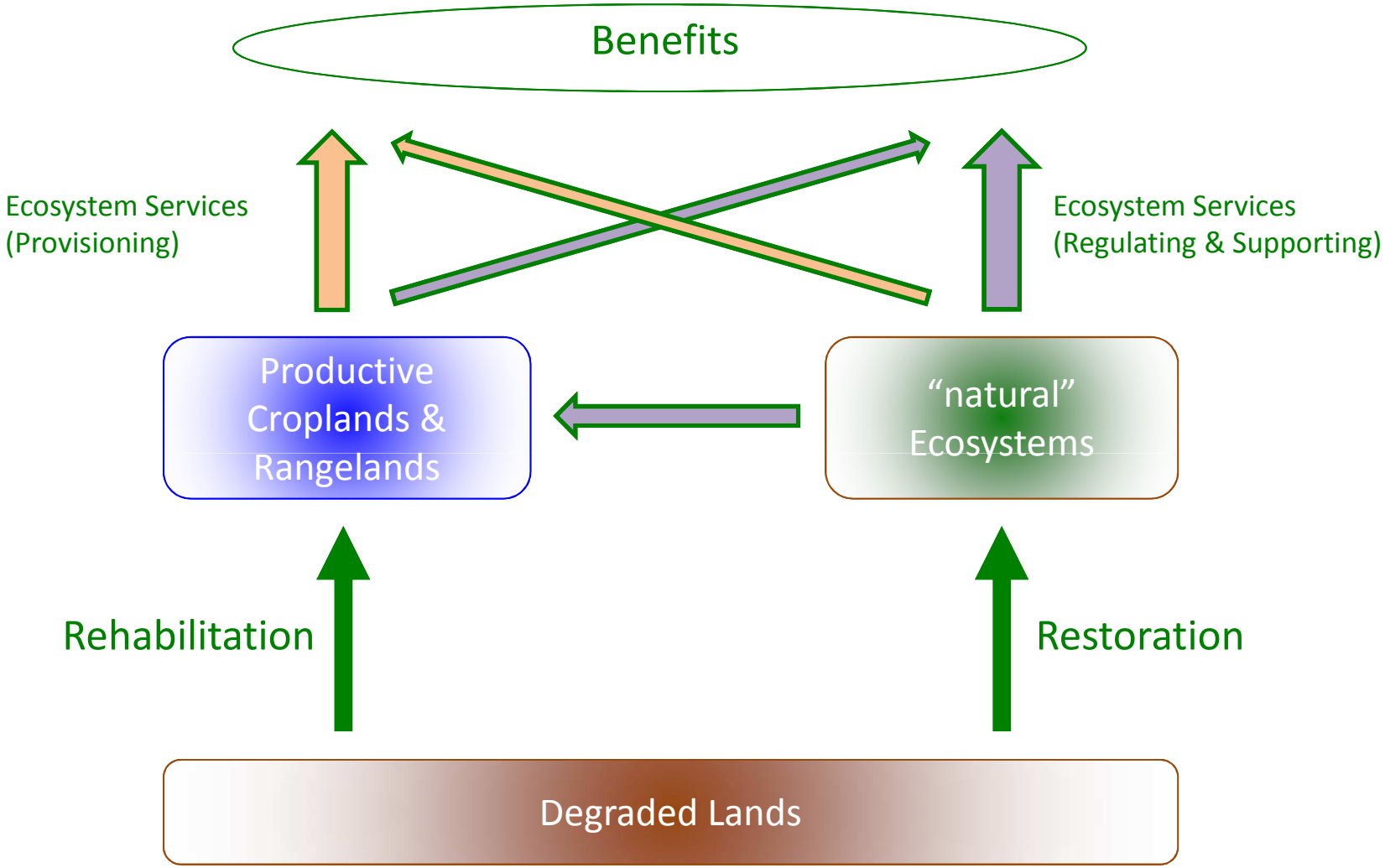

Productivity
Biodiversity
Productive
Agriculture
& rangelands
Natural
Habitats
Degraded
Lands
CONVERSION
DEGRADATION
RESTORATION


Aichi Biodiversity Target 5: Reduce loss of natural Habitats by at least 50% and reduce degradation
Natural Habitats
Productive Agriculture & rangelands
Degraded Lands
Productivity
Biodiversity


Productivity
Productive
Agriculture
& rangelands
Natural
Habitats
Aichi Biodiversity Target 15:
Restore at least 15% of
degraded lands
Degraded
Lands
Biodiversity


Total Productivity
Ecosystem services
Natural
Habitats
Productive
Agriculture
& rangelands
Degraded
Lands
Desired Productivity
Provisioning ecosystem services


Tropical
FORESTS
Productivity
CONVERSION
Croplands &
rangelands
Secondary
FORESTS
Degraded forests
"Degraded pastures"
Severely Degraded
Lands
Biodiversity


Benefits
Ecosystem Services
(Provisioning)
Ecosystem Services
(Regulating & Supporting)
Productive
Croplands &
Rangelands
"natural"
Ecosystems
Rehabilitation
Restoration
Degraded Lands

Assessing habitat loss and degradation

- Expert analysis of soil/ land degradation, status of biodiversity and ecosystem services etc.
- Research findings including those published in journals
- Remote sensing data national, regional and international sources including JRC, LADA, GLASOD, PAGE, GEOBON etc.
- Information from other processes including UNCCD, FAO, UNFCCC (REDD+), SDG process etc.

Setting targets for halting loss, fragmentation and degradation and restoring ecosystems

- Identify ecosystems that are important for biodiversity, ecosystem services and human well-being
- Assess their condition, identifying areas of loss, fragmentation and degradation
- Identify causes of loss, fragmentation and degradation
- Assess rates of loss of ecosystems and ecosystem services
- Identify opportunities and costs for halting the loss, fragmentation and degradation and for restoring the ecosystems and/ or strengthening their resilience
- Identify stakeholders, rights-holders and their needs and interests and implement measures to safeguard them
- Identify additional resources (financial, human and technical) required to achieve the target

Addressing habitat loss, fragmentation and degradation

Policies and legislation

- *Strengthen direct regulation*
- *Including through existing national policy and legislative frameworks*

Economic and financial instruments

- *Remove perverse subsidies*
- *Provide positive incentives*

Strengthen governance mechanisms and institutions

Thank you for your attention!

Secretariat of the Convention on Biological Diversity

413 Saint Jacques Street, Suite 800
Montreal, QC, H2Y 1N9, Canada
Tel: +1 514 288 2220
Fax: + 1 514 288 6588
Email: secretariat@cbd.int
www.cbd.int