The integration of Biodiversity and Health in the SDGs

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Convention on biological diversity

Three objectives:

1. **Conservation** of biological diversity

2. **Sustainable use** of its components

3. **Fair and equitable sharing** of benefits arising from the sustainable use of genetic resources

What is Biodiversity?

Biological Diversity (Art. 2)

"…includes all **plants, animals, microorganisms,** the **ecosystems** of which they are part, and the **diversity** *within* species, *between* species, and *of* ecosystems."
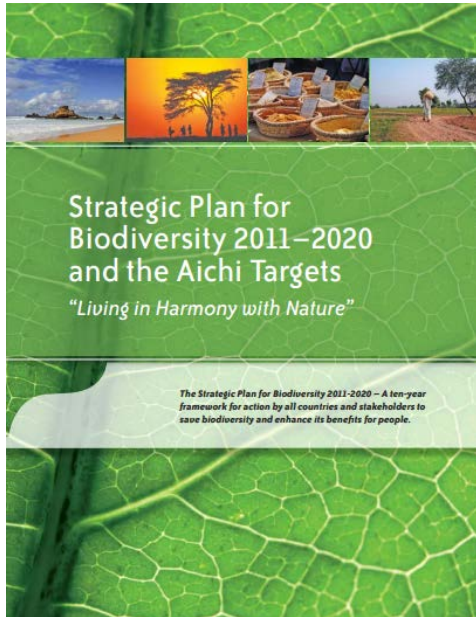
Decision V/4 para 11

Strategic Plan for Biodiversity 2011-2020: Vision

By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a **healthy planet** and delivering **benefits** essential for **all people**.

Mandates: Strategic Plan for Biodiversity 2011-2020

5 strategic goals and 20 Targets

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.

Strategic Plan for Biodiversity 2011–2020 and the Aichi Targets
"Living in Harmony with Nature"

The Strategic Plan for Biodiversity 2011-2020 – A ten-year framework for action by all countries and stakeholders to save biodiversity and enhance its benefits for people.
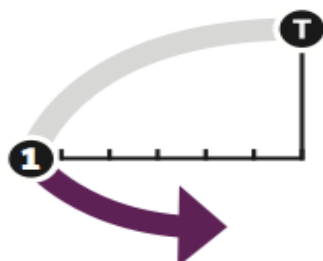
Target 14: …Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded…

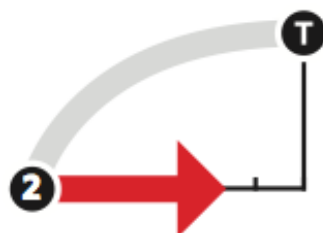# Relevance of the Strategic Plan to the health sector

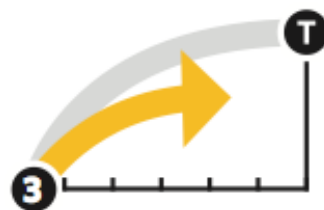| Biodiversity and Health Topic	Health Sector	Biodiversity Sector (**Aichi Biodiversity Target**)
1. Food Species, varieties and breeds incl. domesticated and wild components Diversity of diet Ecology of production systems Total demand on resources	Direct responsibility •Recognize and promote dietary diversity, food cultures and their contribution to good nutrition •Recognize synergies between human health and sustainable use of biodiversity (e.g. moderate consumption of meat) *Indirect responsibility:* *•Promote sustainable production harvesting and conservation of agricultural biodiversity*	T1; T14 T2 (poverty reduction) T4 (sust. production/consumption) T5 (reduce habitat loss) T6 (sustainable harvesting) T7 (sustainable management) T13 (genetic diversity)
2. Water Water quantity, quality and supply	Direct responsibility: •Integrate ecosystem management considerations into health policy *Indirect responsibility:* *•Promote protection of ecosystems that supply water and promote sustainable water use*	T1; T14 T5 (reduce habitat loss) T8 (reduce pollution) T9 (invasive alien species) T11 (protected areas)
3. Disease regulation Ecosystem integrity and diversity	Direct responsibility: •Integrate ecosystem management considerations into health policy *Indirect responsibility:* *•Promote ecosystem integrity*	T1; T14 T2 (poverty reduction) T5 (reduce habitat loss) T8 (reduce pollution) T9 (invasive alien species)
4. Medicine **Traditional medicines** **Drug development** (genetic resources and traditional knowledge)	Direct responsibility: •Recognize contribution of genetic resources and traditional knowledge to medicine *Indirect responsibility:* *•Protect genetic resources and traditional knowledge* *•Ensure benefit sharing*	T1; T14 T2 (poverty reduction) T5 (reduce habitat loss) T13 (genetic diversity) T16 (Nagoya Protocol) T18 (local/traditional knowledge)
5. Physical, mental and cultural well-being Physical health benefits Benefits for mental health Cultural/spiritual enrichment	Direct responsibility: •Integrate 'value of nature' into health policy *Indirect responsibility:* *•Promote protection of values, species and ecosystems*	T1; T14 T2 (poverty reduction) T11 (protected areas) T12 (preventing extinctions) T13 (genetic diversity) T18 (local/traditional knowledge)
6. Adaptation to climate change Ecosystem resilience and Genetic resources (value of 'options' for adaptation)	*Indirect responsibility:* *•Promote ecosystem resilience and conservation of genetic resources*	T1; T14; T15 (ecosystem resilience) T3 (reduce negative subsidies) T5 (reduce habitat loss) T8 (reduce pollution) T10 (vulnerable ecosystems)
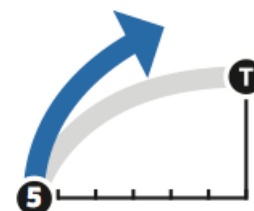
Overview of the "Dashboard" for the Aichi Targets
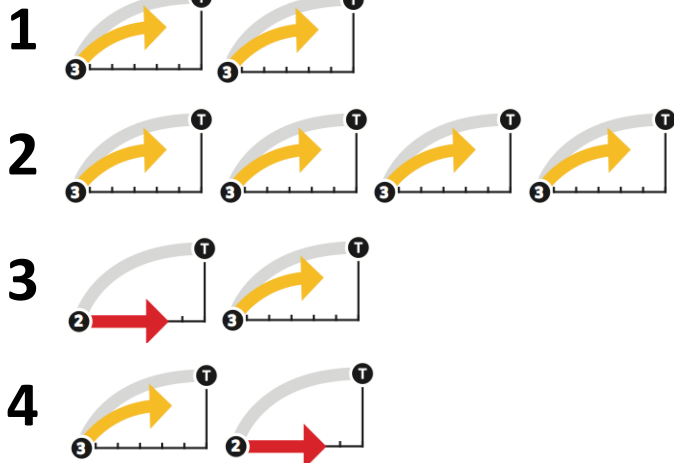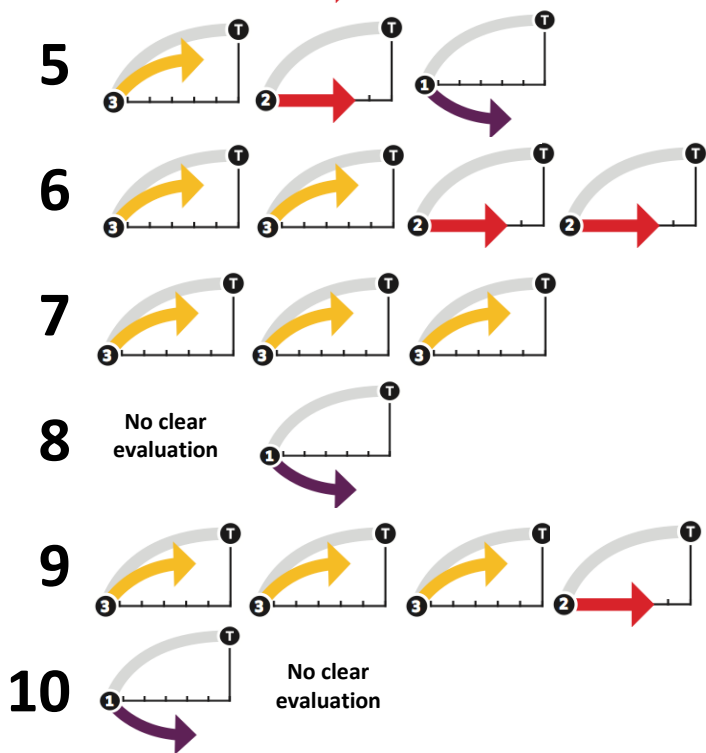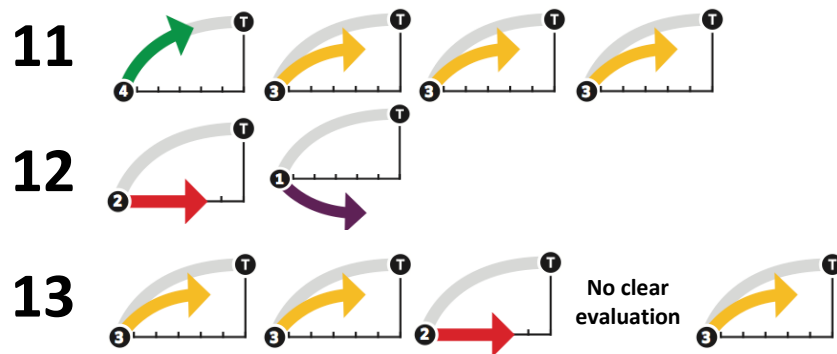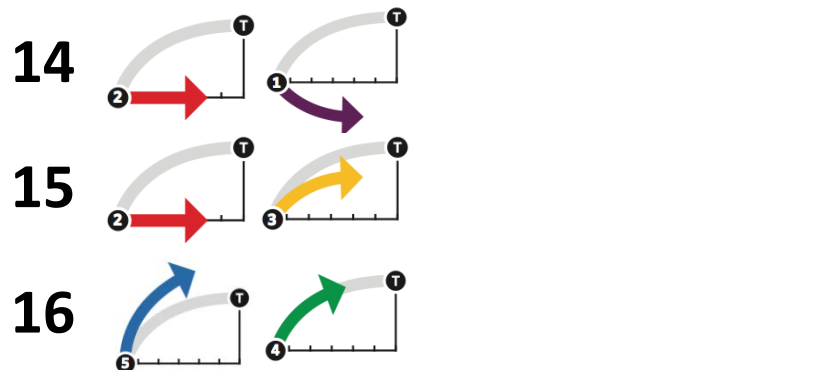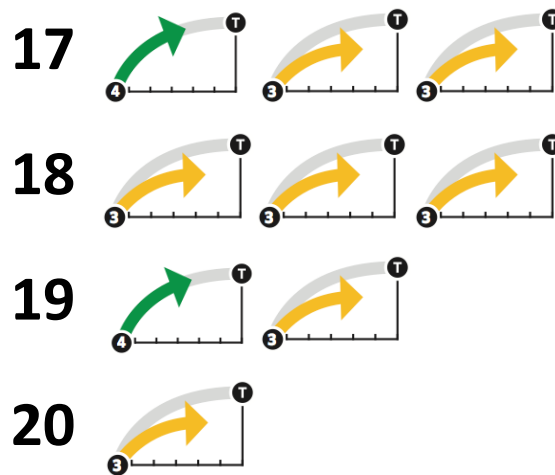
Co-benefits of PAs

Water treatment plants

Flood control systems

Carbon sinks

Traditional Medicines

Food and nutrition security

Trade & Livelihoods

PAs more than ressources ➜ Systems

More than bugs & animals ➜ Life supporting Services

Drivers of biodiversity loss – health impacts

- **Land-use change:** Leading driver of disease emergence in humans; reduction in resiliency, elevated climate change impacts

- **Overexploitation and Destructive Harvest:** Loss of ecosystem services and subsistence food sources; global epidemics through spread of disease

- **Pollution:** Bioaccumulation of toxins in food chain; respiratory diseases; chemical exposures; changes to microbial communities and development of antimicrobial-resistant infections

- **Invasive alien species:** Changes in species competition and displacement, leading to impaired ecosystem functions, e.g. food and water sources; disease introduction to humans, native wildlife and agricultural species

- **Climate Change and Ocean Acidification:** Shifts in species and pathogen range; extreme weather disasters; food security threats

Unfinished agenda of the MDGs

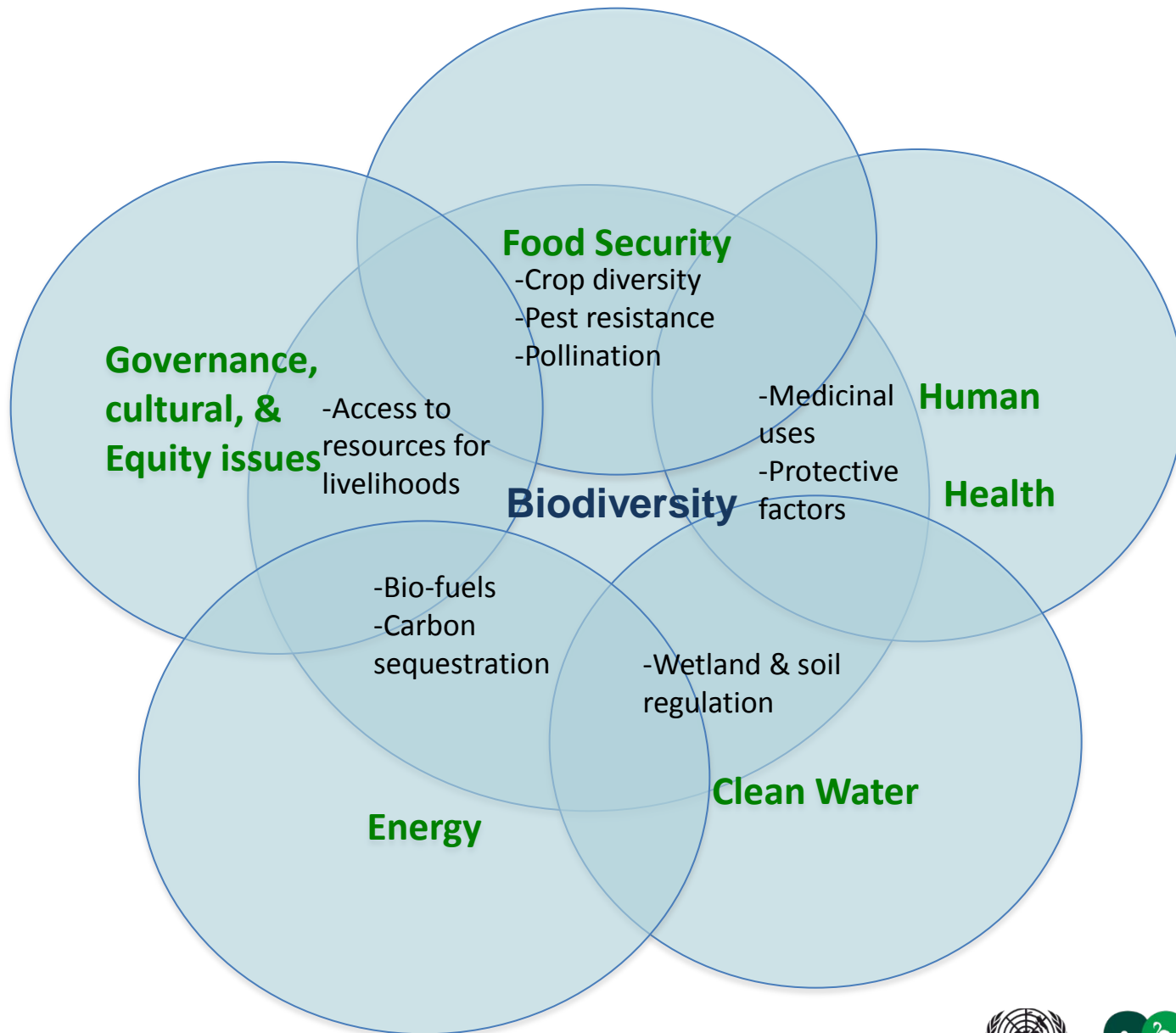ENVIRONMENT · HUMAN HEALTH · FOOD SECURITY · DEVELOPMENT

Source: Golden, 2013

Political will, capacity, resources, competing interests…

Ongoing Social Challenges

❖ Vulnerable groups are also those most reliant on biodiversity & ES and least covered by social protection mechanisms (e.g. health insurance).

❖ Few resources for combating global environmental change & little voice in decision making

❖ Facing environmental changes driven by economic processes in other parts of the world

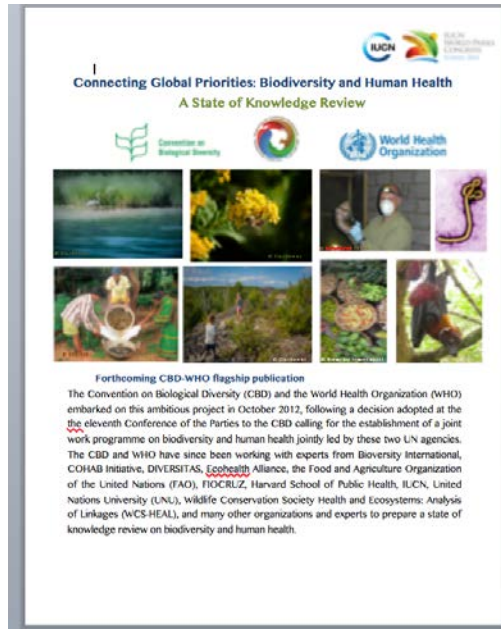❖ Especially vulnerable to disease risk as a result of multiple stresses.

Toward the SDGs

Food Security
-Crop diversity
-Pest resistance
-Pollination

Governance, cultural, & Equity issues

-Access to resources for livelihoods

Biodiversity

-Medicinal uses
-Protective factors

Human Health

-Bio-fuels
-Carbon sequestration

-Wetland & soil regulation

Energy

Clean Water

United Nations Decade on Biodiversity

Global Opportunities

Raise Awareness

Building Capacity

Decision Making

Partnerships

Unique Mainstreaming Opportunities

- Great motivator for policy change
  - Holistic, inclusive, cross-sectoral approaches
  - Strengthen local capacity
  - Link policies to PAs as a delivery mechanism for health
  - Promote ABS of genetic resources
  - Ensure bd values are conserved within and outside Pas
  - Evaluate and consider implications of ecosystem degradation for EID
  - Raise awareness of risks of EIDs from wildlife
  - Raise awareness & maximize co-benefits of Pas
  - Many more!

Thank You

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