



Convention on
Biological Diversity

Caribbean Workshop for Implementing the Strategic Plan for Biodiversity through the National Biodiversity Strategies and Action Plans

Reducing the Direct Pressures on Biodiversity and
Promoting Sustainable Use

CBD Secretariat
17 to 21 October 2011





Status and Trends in Biodiversity

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

→ Terrestrial ecosystems are on the decline e.g.

→ *forests*, which occupy 31% of land surface and contain almost half of all terrestrial species continue to be lost at a high rate, although in some countries the rate of loss is slowing down. Losses are highest in South America and Africa, while some gains are recorded in Europe and Asia.

→ *savannas and grasslands* are also experiencing severe declines. 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





Status and Trends in Biodiversity

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

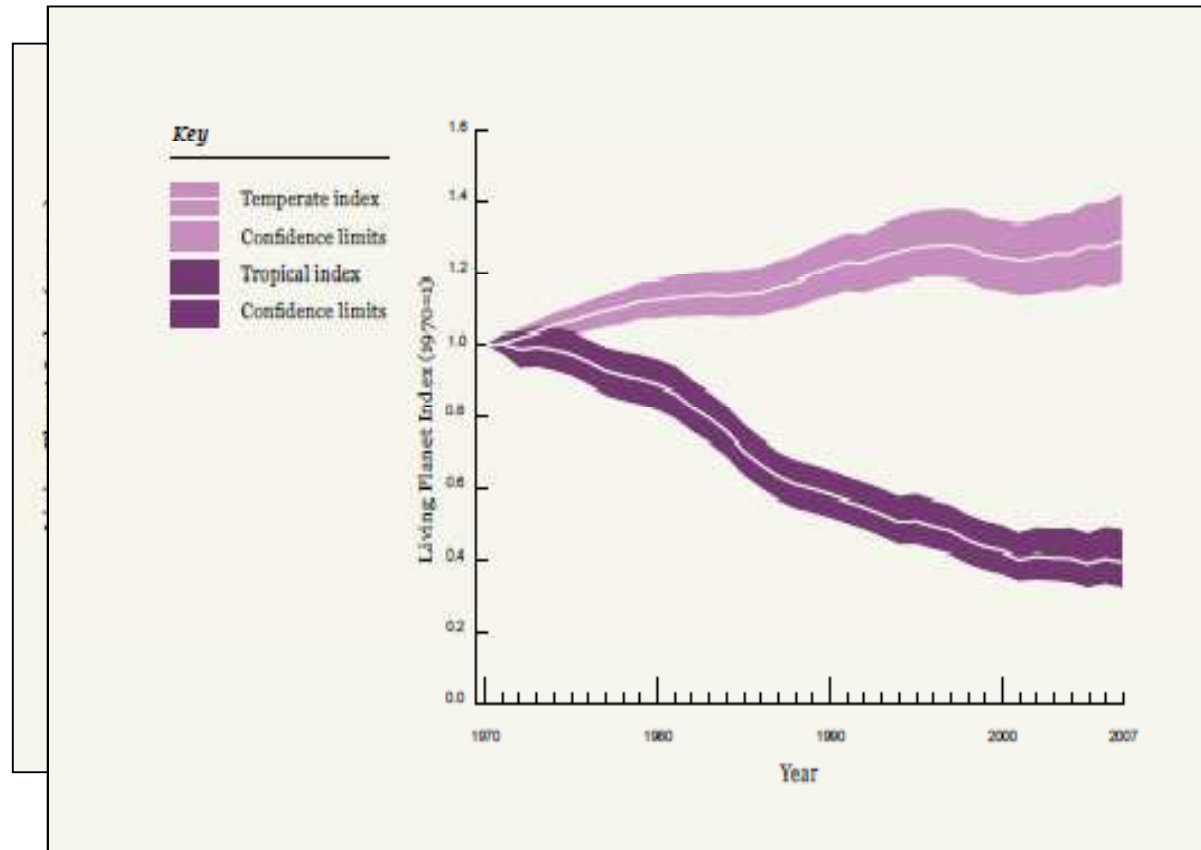


Status and trends of the components of biological diversity

	Trends in extent of selected biomes, ecosystems, and habitats	Most habitats in most parts of the world are declining in extent, although forest area expands in some regions, and the loss of mangroves has slowed significantly, except in Asia. ***
	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. ***



Trends



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



Status and Trends in Biodiversity - Caribbean

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Plants:

- Exceptional endemism
- Timber species esp. heavily exploited

Mammals:

- threatened by IAS, habitat loss, over-exploitation

Amphibians:

- centre of endemism
- top 5 countries with highest % of amph under threat are in Caribbean

Birds:

- 48 out of 160 endemic species are threatened

Reptiles:

- Caribbean is centre of reptile endemism (94% endemism)
- under severe threat

Fisheries:

- endangered by over-exploitation, IAS





Drivers of Change

- The Millennium Ecosystem Assessment recognizes 5 main drivers of biodiversity loss:
 - Habitat loss, alteration and fragmentation
 - Over-exploitation of wild species
 - Pollution
 - Climate change - **to be discussed later**
 - Invasive alien species – **to be discussed later**



Habitat Loss, Alteration 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;
- 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
- E.g. clearance of mangroves, construction activities, dredging, mining, and anchoring
- Clearing forests for agriculture and different plantations



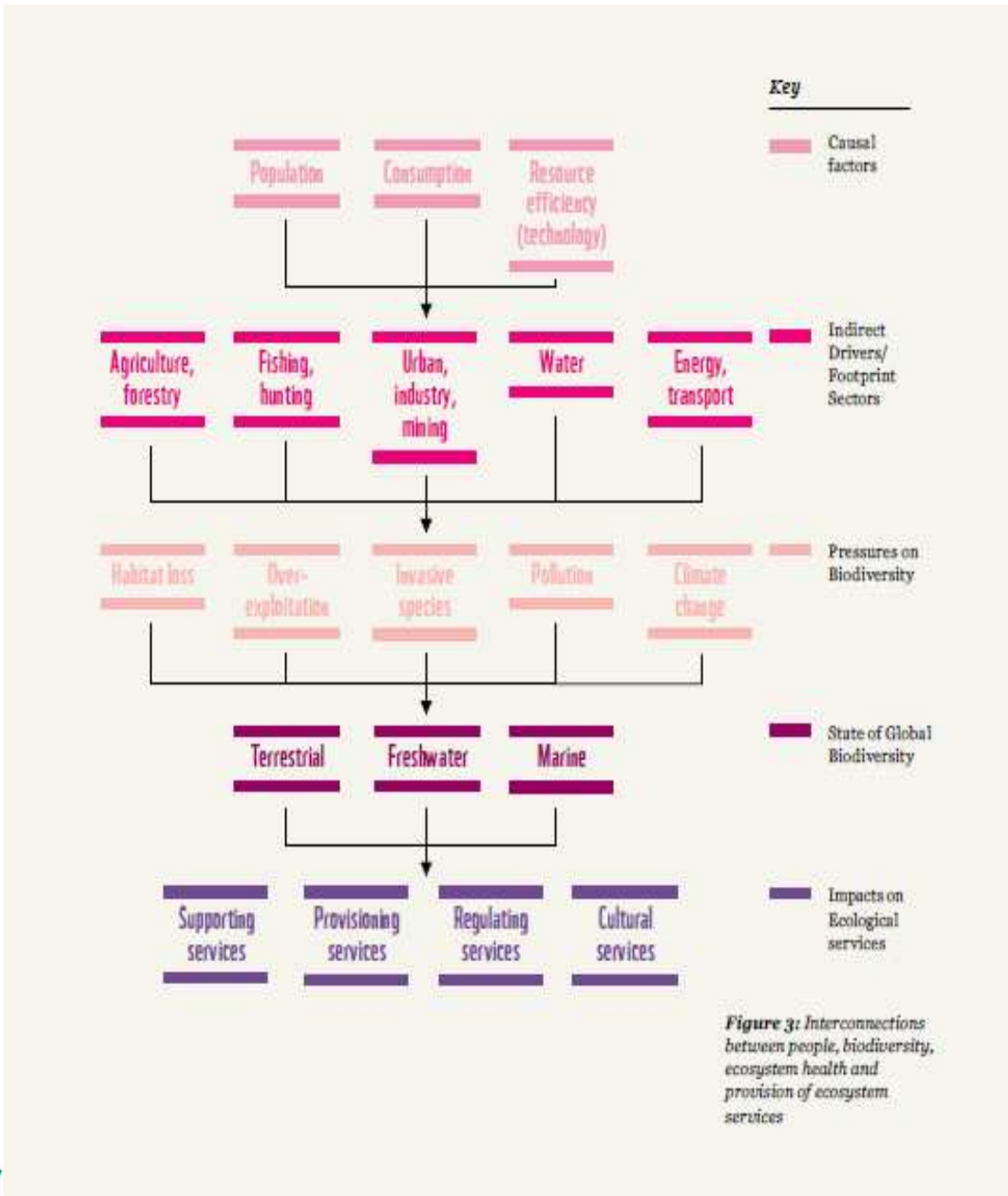
Over-exploitation of Wild Species

- Growing human populations are increasing the pressures on biodiversity through unsustainable utilization
- Most commonly over-exploited species are fish and invertebrates, trees, bush-meat species and medicinal plant and animal species
- Most industrial fisheries are almost or fully exploited and it has been found that most marine ecosystems do not fully recover from severe depletion
- Non-timber forest products are also at risk
- **Fisheries in the region are under severe pressure**



Pollution including from excess nutrients

- Arises from human activities such as agriculture and industry
- Excess availability of nutrients may lead some plants to outcompete others, changing plant species composition
- run-off from croplands, sewage and storm drainage threatens marine and coastal ecosystems
- Caribbean has significant levels of marine pollution from marine vessels
- Contaminants include sewage, solid waste leachate from landfills, industrial and agricultural run-off, and petroleum products



Impacts on biodiversity: from causal factors to impacts on ecosystem services

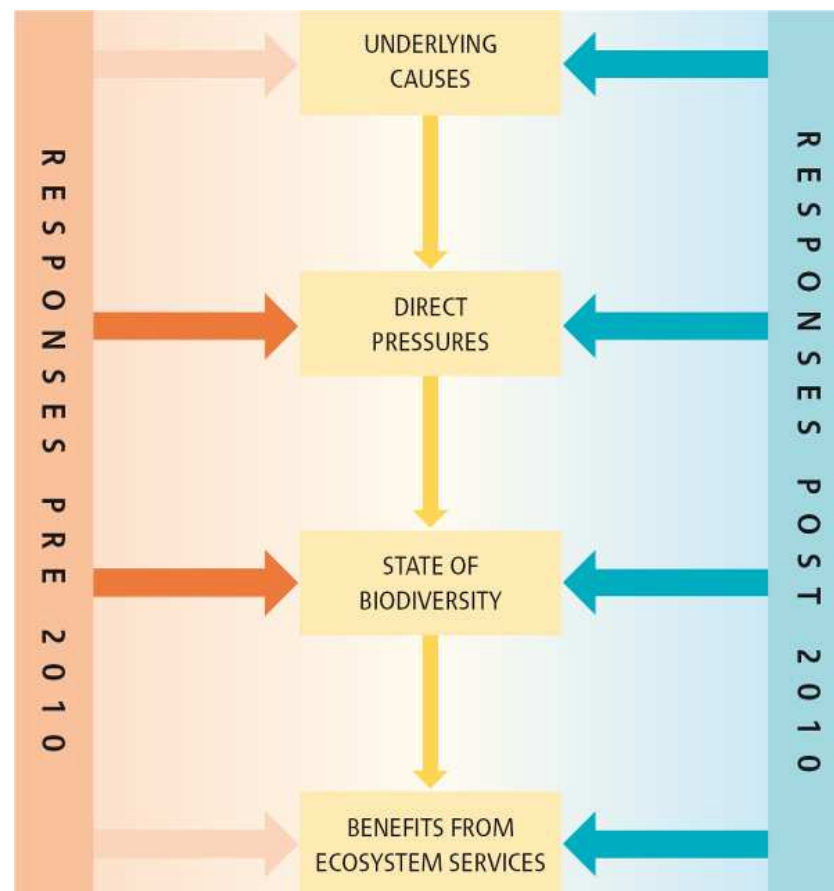
Figure 3: Interconnections between people, biodiversity, ecosystem health and provision of ecosystem services





Global Response: Strategic Plan for Biodiversity 2011 - 2020

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





Thank you for your attention!

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