Assessing Status, Trends and Threats of Biodiversity and Implications for Human Well-Being

Suggestions for Preparing Part I

CBD Secretariat
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Overall Suggestions

- To provide most up-to-date data and information, however, historical data can be used for analysis of changes in status and trends.
- To make assessments by summarizing/analyzing existing, relevant studies/assessments, and by focusing on key biomes or biodiversity components.
- To use cases to illustrate how actions taken have resulted in changes in biodiversity.
- To use experts' qualitative assessments where data/information is lacking or inadequate.
- To use indicators to assess status, trends, threats and implications. Indicators can be global, regional and national indicators.
- To use tools such as tables, charts, figures, graphics for better analysis and communication.

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Suggested Structure of Part I

- Importance of biodiversity (economic and other values of biodiversity and services/benefits it provides)

- Changes in status and trends of biodiversity

- Main threats to biodiversity (both direct and indirect)

- Impacts of biodiversity changes (implications for human well-being etc.)

- Possible scenarios for future changes

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Suggested Information to be Included in Section 1 (Question 1)

Question 1: Why is biodiversity important for your country?

Countries can elaborate importance of biodiversity by

• Highlighting contributions of biodiversity and related ecosystem services to human well-being, socio-economic developments, livelihoods, etc.

• Where possible estimating economic and other values of biodiversity and ecosystem services by using national/regional/global TEEB or other relevant studies.

• Using examples of exceptional biodiversity and services/benefits it provides.

• Or using negative cases to illustrate impacts caused by biodiversity loss/decline.

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Suggested Information to be Included in Section 2 (Question 2)

Question 2: What major changes have taken place in the status and trends of biodiversity in your country?

Countries could:

•Focus on changes occurred since last national report submitted, however historical data could be used for status/trend analysis;

•Focus on those ecosystems/species that are nationally important;

•Present a succinct overview of biodiversity status using assessments/studies available;

•Show changes in biodiversity or other trends over time and use indicators for analysis where possible;

•Include case studies that demonstrate significant reductions in biodiversity loss, and that contain lessons more widely applicable.

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Suggested Information to be Included in Section 3 (Question 3)

Question 3. What are the main threats to biodiversity?

Countries could

• Link threat analysis with negative changes in status and trends of biodiversity (described in Section 2)

• Cover both direct and indirect drivers of changes

• Describe main drivers (both direct and indirect) for the main biomes and/or components of biodiversity and relate them to relevant economic sectors

• Be specific about direct drivers but categorize them with some detailed analysis

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Suggested Information to be Included in Section 4 (Question 4)

Question 4 What are the impacts of the changes in biodiversity for ecosystem services and the socio-economic and cultural implications of these impacts?

Countries could

• Describe the impacts of declining biodiversity and ecosystems on human well-being, livelihoods, poverty reduction, etc.;

• Consider all relevant and significant ecosystem goods and services;

• Use specific cases to illustrate impacts.

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Suggested Information to be Included in Section 5 (Optional Question)

Optional Question: What are possible future changes for biodiversity and their impacts?
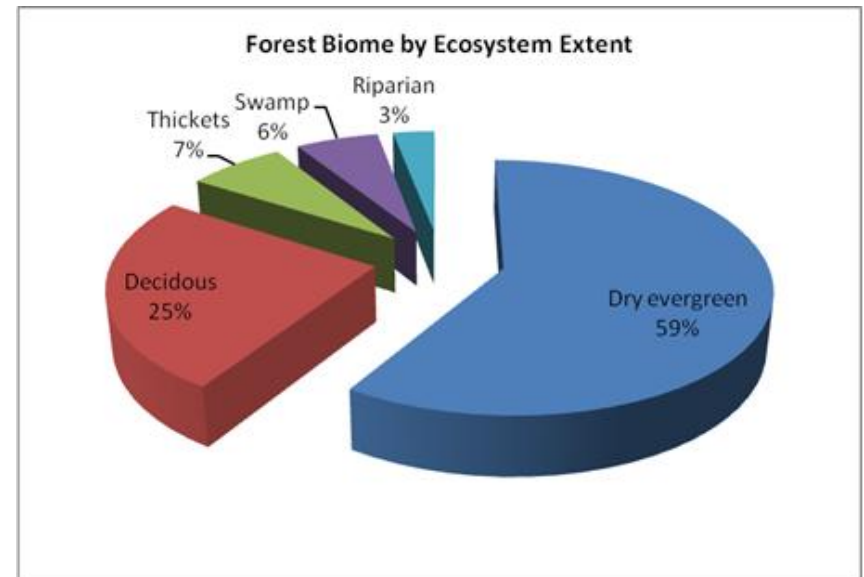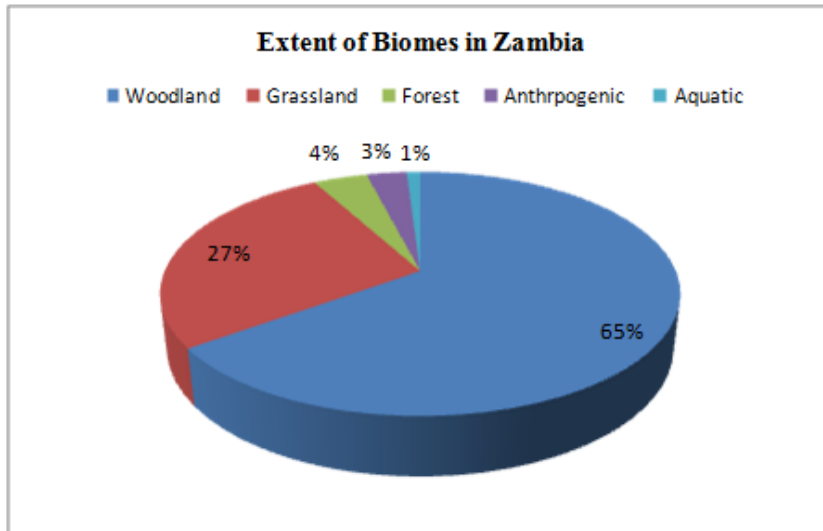
Countries could

•Describe possible future scenarios for biodiversity in terms of underlying causes, pressures, impacts on biodiversity and implications for human well-being;

•Compare what might happen under "business as usual" policies with what might happen with greater investment in biodiversity;

•Use scenario analysis models if available;

•Describe scientific uncertainties for such analysis.

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Reference Materials and Information Sources for Use in Part I

- GEO and regional assessments

- GBO 3

- MEA and sub-global assessments

- Various global assessments (GIWA, FRA 2010, LADA, COML, etc.)

- GBIF databases

- GEO BON

- TEEB and its reports

- IPBES reports

- Reports by IUCN/WWF/Other NGOs (WWF Living Planet Report, IUCN Red List, State of the World's Birds, etc.)

- Reports by UN Organizations (UNEP, UNEP-WCMC, FAO, UNDP, etc.)

- GBIP Reports (on indicators)
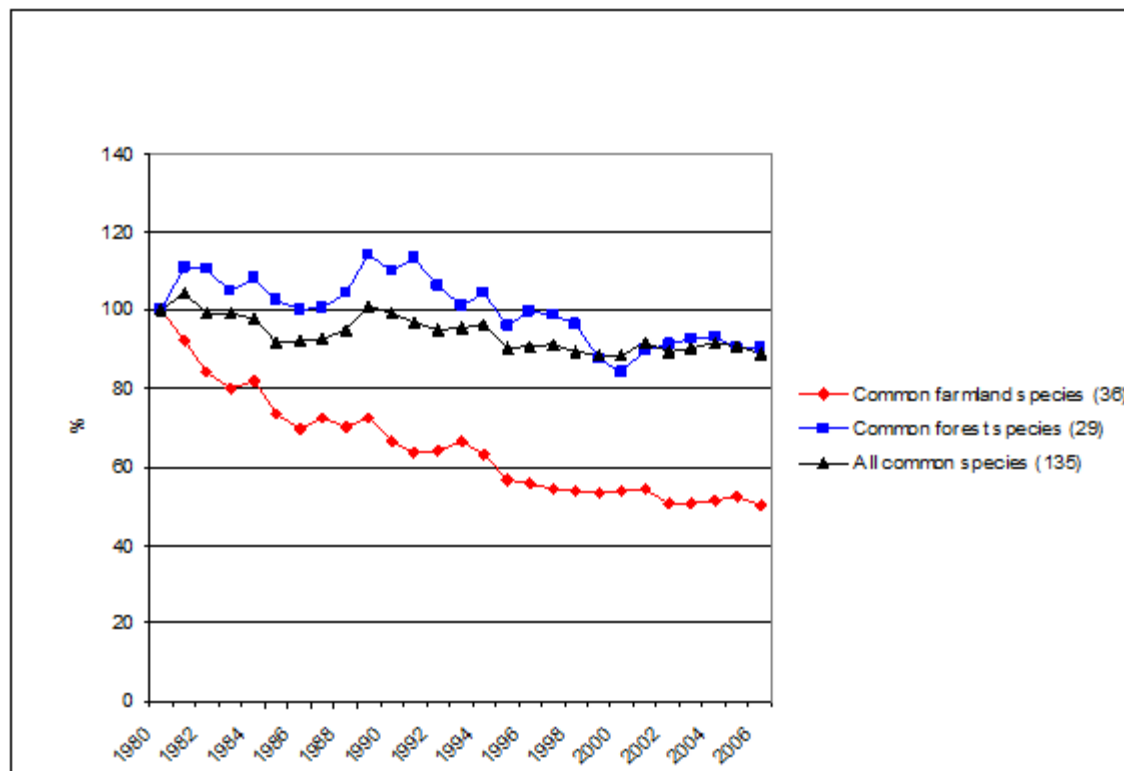
- CBD Databases of Scientific Assessments

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Examples of Graphics (Status Analysis from Zambia's 4NR)

Extent of Biomes in Zambia

■ Woodland ■ Grassland ■ Forest ■ Anthrpogenic ■ Aquatic

4% 3% 1%
27%
65%

Forest Biome by Ecosystem Extent

Thickets 7%
Swamp 6%
Riparian 3%
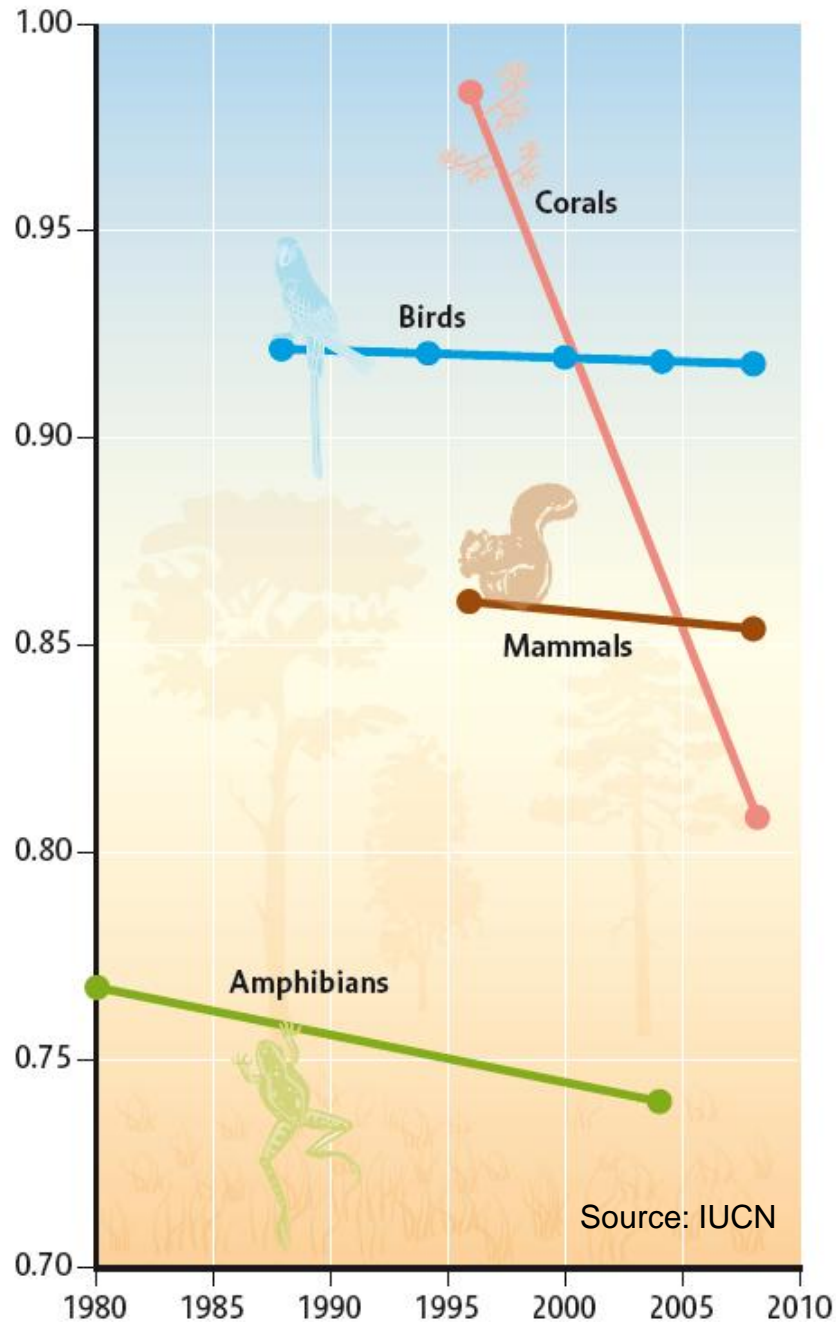Decidous 25%
Dry evergreen 59%

Examples of Graphics for Use in Part I (Trend Analysis)

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Common birds in Europe, population index (1980 = 100) (Source: EBCC/RSPB/BirdLife/Statistics Netherlands) (NR4 European Union)

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Red List Index

Source: IUCN

- The Red List Index (RLI) for all these species groups is decreasing.

- Coral species are moving most rapidly towards greater extinction risk

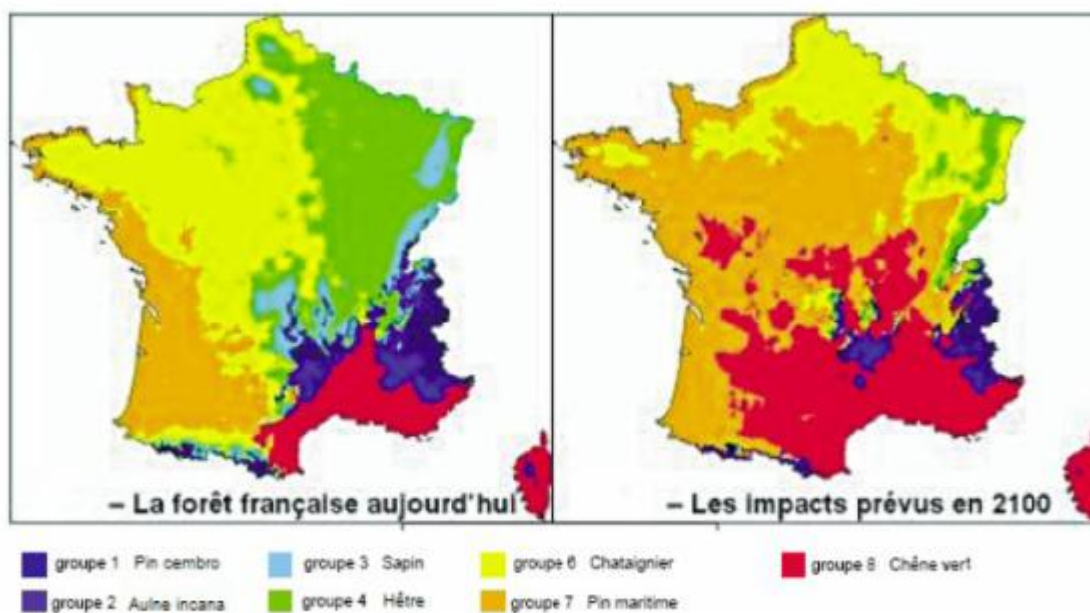- Amphibians are, on average, the group most threatened.

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Threat / Menaces

Ecosystems

Ecosystem		Habitat Change	Climate Change	Invasive Species	Over-exploitation	Nutrients & pollution
Forest	Boreal	↗	↑	↗	→	↑
Forest	Temperate	↘	↑	↑	→	↑
Forest	Tropical	↑	↑	↑	↗	↑
Dryland	Temperate grassland	↗	↑	→	→	↑
Dryland	Mediterranean	↗	↑	↑	→	↑
Dryland	Tropical grassland and savanna	↗	↑	↑	→	↑
Dryland	Desert	→	↑	→	→	↑
Inland water		↑	↑	↑	→	↑
Coastal		↗	↑	↗	↗	↑
Marine		↑	↑	→	↗	↑
Island		→	↑	→	→	↑
Mountain		→	↑	→	→	↑
Polar		↗	↑	→	↗	↑

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Graphics for Scenario Analysis
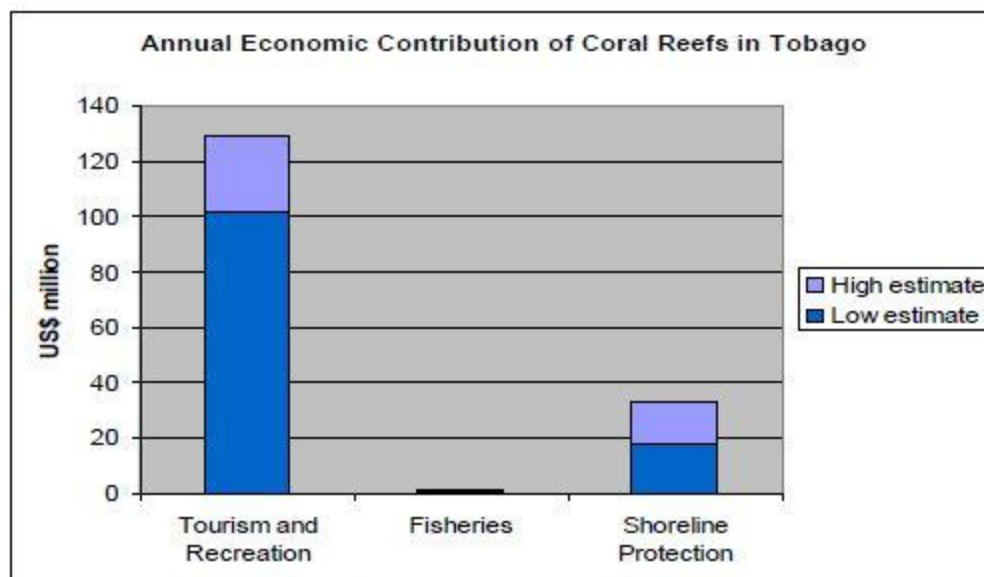
Impacts of Climate Change on Forests (France 4NR)

Source : Rapport B. Roman-Amat, 2007

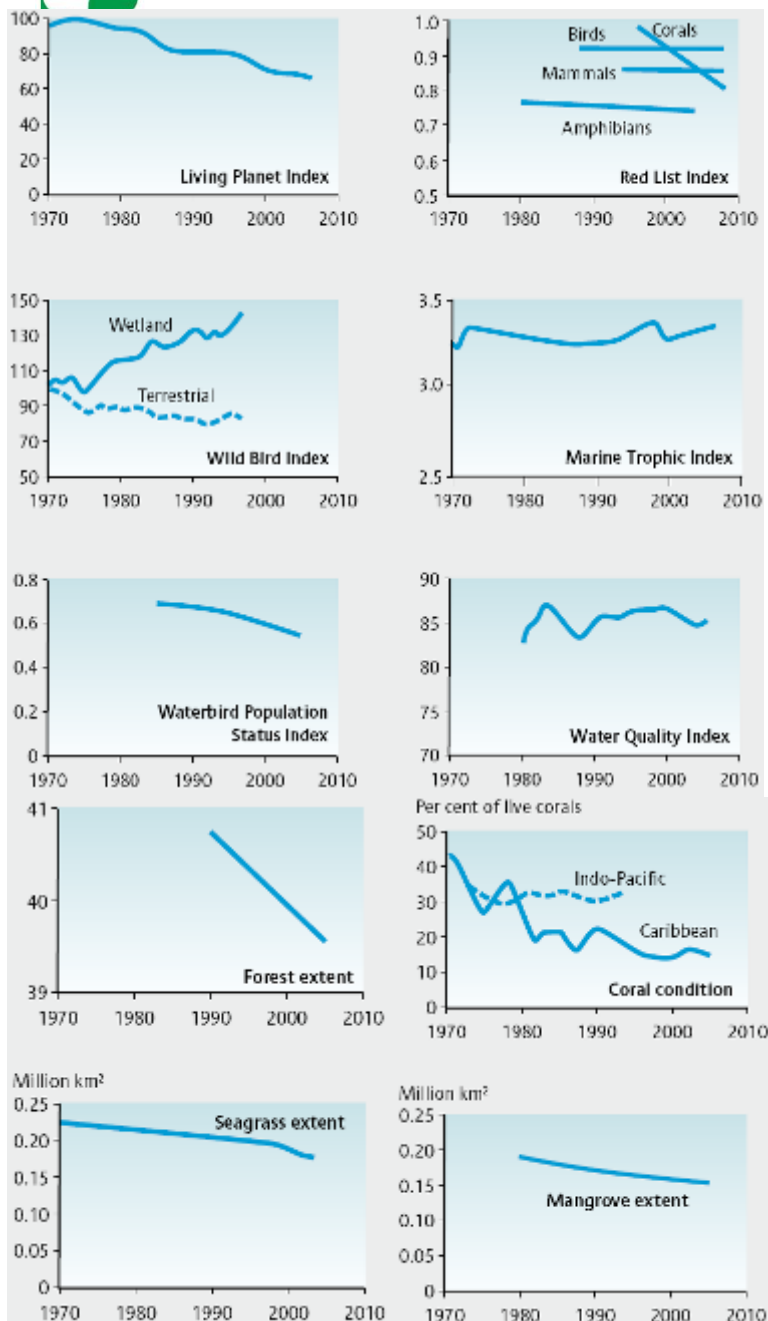# Graphics for Economic Analysis of Benefits provided by Biodiversity

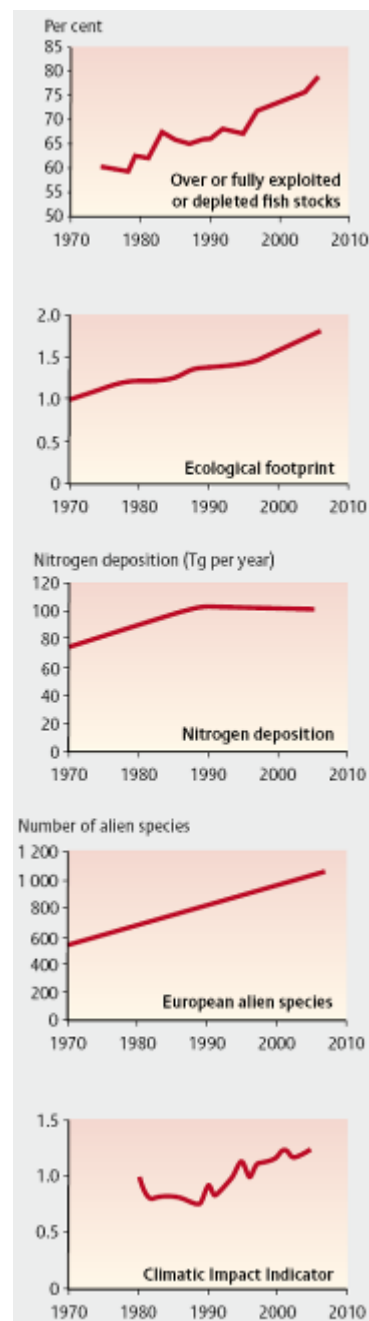FIGURE 1.4: ECONOMIC CONTRIBUTION OF CORAL REEFS IN TOBAGO (2006)
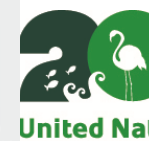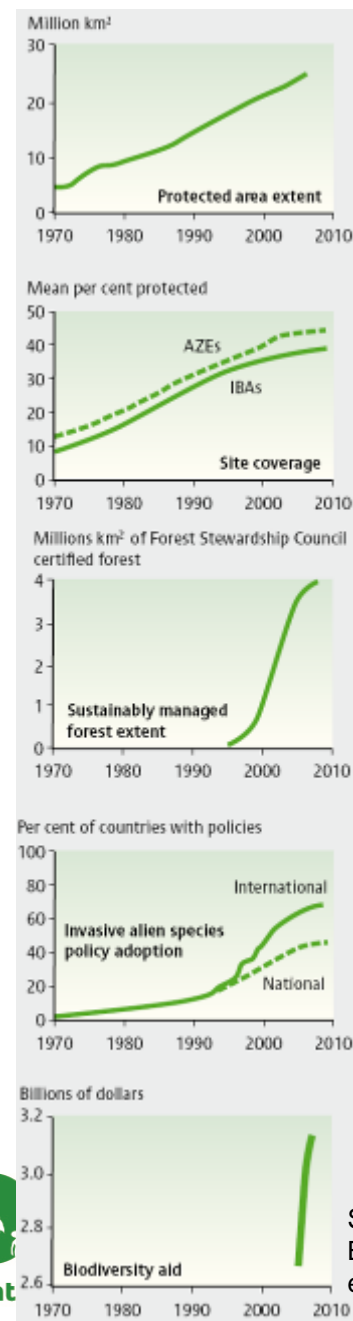
Source: World Resources Institute 2008

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State | Pressure | Response

Source: Butchart et al 2010

Summary Remarks

In preparing Part I, please remember

- To look at past, present and future;

- To do more analysis than description;

- To use indicators and graphics for analysis;

- To use various sources of data/information for analysis;

- To use evidence/cases to support analysis;

- To provide clear messages to policy makers and relevant stakeholders about the urgency to take more actions to address biodiversity issues.

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Thank you for your attention!

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