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Biodiversity Monitoring and CBD

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Monitoring and Evaluation of Progress Made in the Implementation of the Convention on Biological Diversity and its Strategic Plan

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Monitoring and indicator- based assessments play an important role in directing action. They track implementation and show: i) where policies or actions were implemented; ii) whether intended results were achieved; and iii) whether new factors have emerged. In case of failure to implement, they can lead to the examination of whether policies were appropriate, the necessary institutions and instruments are in place and were appropriate.

For effective monitoring, relevant indicators are needed to establish a causal link between the actions or policies and the intended results in terms of their impacts on biological diversity. This may be complex given the fact that: i) changes in biodiversity components can be caused simultaneously by several factors such as parallel incompatible policies; ii) difficulty of distinguishing man-induced changes and natural changes; and iii) time lags between implementation of policies and ultimate impact on biodiversity. Nevertheless, good indicators should be: i) scientifically sound; ii) sensitive; iii) measurable; iv) relate directly to policy options, goals or targets; v) detect biodiversity changes in space and over time at different levels of biological organization against a baseline; vi) identify critical thresholds or the irreversibility of change; vii) provide early warning; and viii) complement other sets of indicators designed to assess other policy sectors such as agriculture, forestry, trade, health, poverty reduction and sustainable development.

However, drawing on the first Global Biodiversity Outlook (2001) and national reports as the main source of information on implementation, it is not possible to assess implementation, identify progress made, constraints encountered, and emerging issues and identify priorities for future action.

Monitoring and evaluation of progress in implementation is hampered by lack of baseline information and appropriate monitoring mechanisms and hence compliance with the identification and monitoring measures requirements specified in Article 7.

Within the content of the CBD, indicators are required to show the status and trends of biodiversity, progress in implementation of the 3 objectives of the Convention and its Strategic Plan including the 2010 target and effectiveness of measures taken. Monitoring schemes should be standardized and ensure good data management for long-term monitoring. They should be able to identify ways and means to overcome constraints to implementation and improve effectiveness.

The need for baseline data, clear targets and a series of state, impact, response, driver, pressure indicators and monitoring programs of biodiversity components relevant to the situations of the countries, to adapt to their country specific biodiversity, threat, capacity and goals was recognized by the Parties to the CBD. Indicators and monitoring should be designed to detect changes in time frames against baseline (the earliest data within a time series) and on the spatial scales that are relevant to policy objectives, goals and decisions. It is important to detect changes before it is too late and to correct any problems that are found.

To enable Parties to undertake comprehensive assessment of progress at the global and national level and communicate effectively trends in biodiversity related to the three objectives of the Convention, a framework was established to assist countries in the design of monitoring and assessment systems, identify goals and measures that need to be assessed, suggest some useful indicators to be measured for each goal against attainment of a desired outcome and encourage basic standards for assessment and reporting.

The framework is structured around seven focal areas, which together represent both responses to the drivers of biodiversity loss, and the means to achieve the three objectives of the Convention. The focal areas are: a) Reducing the rate of loss of the components of biodiversity, including: (i) biomes, habitats and ecosystems; (ii) species and populations; and (iii) genetic diversity; b) Promoting sustainable use of biodiversity; c) Addressing the major threats to biodiversity, including those arising from invasive alien species, climate change, pollution, and habitat change; d) Maintaining ecosystem integrity, and the provision of goods and services provided by biodiversity in ecosystems, in support of human well-being; e) Protecting traditional knowledge, innovations and practices; f) Ensuring the fair and equitable sharing of benefits arising out of the use of genetic resources; and; g) Mobilizing financial and technical resources, especially for developing countries, in particular, least developed countries and small island developing states among them, and countries with economies in transition, for implementing the Convention and the Strategic Plan.

The common framework for evaluation and monitoring is based on the premise that the process of biodiversity management starts with establishing a vision (based on the states and threats), management actions/ measures to be undertaken through planning and allocation of resources and results leading to desired outcomes. Monitoring and evaluation of these stages enable the planners, managers and policy makers to manage biodiversity effectively. Indicator categories were identified for relevant articles of the convention, including state, pressure, and use indicators for Article 7, response indicators for Articles 6, 8-11, as well as capacity building indicators.

The purpose of assessing status and trends of biodiversity is to inform national level planners and managers to ensure that activities and policies are contributing to the achievement of relevant biodiversity outcomes and that the

results are contributing to the achievement of the 2010 biodiversity target. The need to assess the effectiveness of the measures taken within the framework of the Convention and/or the NBSAPs is to assess to what extent the programs of work adopted under the CBD have been implemented at the local, national, regional, and international levels, respectively, and if necessary to adapt the strategies to achieve the policy goals including the 2010 biodiversity target.

The framework for designing national-level monitoring programs and indicators consists of 3 main elements: i) identification of national policy issues and goals; ii) identification or development of few suitable indicators; and iii) development of an appropriate monitoring program which allows for measuring progress towards policy goals. With the development of an Eco-regional Conservation Plan for the Caucasus, information from all sources will be critical to arriving at effective management of the Plan. The creation of a regional monitoring network will facilitate the promotion of a more consistent framework of data gathering, computation and reporting that can contribute to the development of commonly agreed indicators at regional and subsequently global levels and better evaluation of progress made in the implementation of not only the Plan but also of the Parties obligations under the Convention.

Monitoring and Evaluation

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Biodiversity Management

- establishing a vision (based on the states and threats),
- selecting management actions/ measures to be undertaken through planning
- allocation of resources and results leading to desired outcomes,
- monitoring and evaluation of these stages to enable the planners, managers and policy makers to manage biodiversity effectively.

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Need for Monitoring and Evaluation

They show:

- where policies or actions were implemented;
- whether intended results were achieved;
- whether new factors have emerged.

3

Indicators

- To establish a causal link between the actions or policies and the intended results in terms of their impacts on biological diversity.
- Difficulties :
 - changes in biodiversity components can be caused simultaneously by several factors such as parallel incompatible policies;
 - distinguishing man-induced changes and natural changes due to time lags between implementation of policies and ultimate impact on biodiversity.

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Indicators (contd.)

- They should be:
 - scientifically sound; sensitive; and measurable;
 - relate directly to policy objectives, options, goals, targets or decisions;
 - detect biodiversity changes in space and over time at different levels of biological organization against a baseline;
 - identify critical thresholds or the irreversibility of change;
 - provide early warning; and
 - complement other sets of indicators designed to assess other policy sectors such as agriculture, forestry, trade, health, poverty reduction and sustainable development.

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Framework for Evaluating Progress in Implementation

Indicators are required to show:

- The status and trends of biodiversity;
- The progress in implementation of the three objectives of the Convention and its work programs and Strategic Plan including the 2010 target;
- The effectiveness of measures taken within the framework of the Convention and/or NBSAPs.

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Framework for Evaluating Progress in Implementation (contd.)

Focus areas:

- Reducing the rate of loss of the components of biodiversity, including:
 - Biomes, habitats and ecosystems;
 - Species and populations; and
 - Genetic diversity;
- Promoting sustainable use of biodiversity;
- Addressing the major threats to biodiversity, including those arising from invasive alien species, climate change, pollution, and habitat change;
- Maintaining ecosystem integrity, and the provision of goods and services provided by biodiversity in ecosystems, in support of human well-being;

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Framework for Evaluating Progress in Implementation

Focus areas (contd.):

- Protecting traditional knowledge, innovations and practices;
- Ensuring the fair and equitable sharing of benefits arising out of the use of genetic resources; and;
- Mobilizing financial and technical resources, especially for developing countries, in particular, least developed countries and small island developing states among them, and countries with economies in transition, for implementing the Convention and the Strategic Plan.

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National and Regional Monitoring Mechanisms

Framework for designing monitoring programs and indicators:

- identification of national and/or policy issues and goals;
- identification or development of few suitable indicators;
- development of an appropriate monitoring program which allows for measuring progress towards policy objectives and goals.