# *Acronyms and abbreviations*

| | |
|---|---|
| **5MHRP** | Five Million Hectare Programme (Viet Nam) |
| **AFB** | French Biodiversity Authority, *Agence française pour la biodiversité* |
| **AFD** | French Development Agency, *Agence française de développement* |
| **AIDESEP** | Interethnic Association for the Development of the Peruvian Rainforest (Peru), *Asociación Interétnica de Desarrollo de la Selva Peruana* |
| **ANSPE** | Agency for Overcoming Extreme Poverty (Colombia), *Agencia Nacional para la Superación de la Pobreza Extrema* |
| **BMZ** | Federal Ministry for Economic Co-operation and Development (Germany), *Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung* |
| **CBD** | Convention on Biological Diversity |
| **CBF** | community-based forestry |
| **CEDRIG** | Climate Environment and Disaster Risk Reduction Integration Guidance |
| **CITES** | Convention on International Trade in Endangered Species of Wild Fauna and Flora |
| **CNFL** | National Company of Energy and Lighting (Costa Rica), *Compañía Nacional de Fuerza y Luz* |
| **CONABIO** | Commission for the Knowledge and Use of Biodiversity (Mexico), *Comisión nacional para el conocimiento y uso de la biodiversidad*; National Biodiversity Commission (Brazil), *Comissão Nacional de Biodiversidade* |
| **CONAFOR** | National Forestry Commission (Mexico), *Comisión Nacional Forestal* |
| **CONAGUA** | National Water Commission (Mexico), *Comisión Nacional del Agua* |
| **CONAMA** | National Council for the Environment (Brazil), *Consello Nacional de Meio Ambiente* |
| **CONANP** | National Commission of Natural Protected Areas (Mexico), *Comisión Nacional de Áreas Naturales Protegidas*; Environmental Reserve Quotas (Brazil), *Cotas de Reserva Ambiental* |
| **CRGE** | Climate Resilient Green Economy (Ethiopia) |
| **CRS** | Creditor Reporting System |
| **CUSTF** | Environmental Compensation for Land Use Changes in Forested Areas Programme (Mexico), *Cambio de Uso de Suelo en Terrenos Forestales* |

| | |
|---|---|
| **DADF** | Department of Animal Husbandry, Dairy and Fisheries (India) |
| **DAWR** | Department of Agriculture and Water Resources (Australia) |
| **DAFF** | Department of Agriculture, Forestry and Fisheries (South Africa) |
| **DEA** | Department of Environmental Affairs (South Africa) |
| **DEE** | Department of Environment and Energy (Australia) |
| **EBI** | Ethiopian Biodiversity Institute |
| **EIA** | environmental impact assessment |
| **EMP** | environmental management plan |
| **ENBioMex** | National Strategy on Biodiversity of (Mexico), *Estrategia Nacional Sobre Biodiversidad de México* |
| **EU CAP** | European Union Common Agricultural Policy |
| **EUR** | euro |
| **FAD** | fish aggregating device |
| **FAO** | Food and Agricultural Organization of the United Nations |
| **FD** | Forest Department (Myanmar) |
| **FMO** | Netherlands Finance Development Company, *Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden* |
| **Finnfund** | Finnish Fund for Industrial Cooperation |
| **FLEGT** | Forest Law Enforcement, Governance and Trade Action Plan |
| **FMP** | forest management plan |
| **FSC** | Forest Stewardship Council |
| **GDP** | gross domestic product |
| **GEF** | Global Environment Facility |
| **GPP** | green public procurement |
| **HCFCs** | hydrochlorofluorocarbons |
| **IBAMA** | Brazilian Institute for Environment and Renewable Natural Resources |
| **ILO** | International Labour Organization |
| **INPE** | National Institute for Space Research (Brazil), *Instituto Nacional Penitenciario* |
| **ITQ** | individual transferable quotas |
| **IUCN** | International Union for Conservation of Nature |
| **IUU** | illegal, unreported and unregulated |
| **IVQ** | individual vessel quota |
| **JAXA** | Japanese Aerospace Exploration Agency |
| **JICA** | Japan International Cooperation Agency |

| | |
|---|---|
| **KfW** | Reconstruction Credit Institute (Germany), *Kreditanstalt für Wiederaufbau* |
| **MAA** | Ministry of Agriculture and Food (France), *Ministère de l'agriculture et de l'alimentation* |
| **MADS** | Ministry of Environment and Sustainable Development (Colombia), *Ministerio de Ambiente y Desarrollo Sostenible* |
| **MDB** | multilateral development bank |
| **MDG** | Millennium Development Goal |
| **M&E** | Monitoring and Evaluation |
| **MEEM** | Ministry of Environment, Energy and Marine Affairs (France), *Ministère de l'Environnement, de l'Energie et de la Mer* |
| **MoAI** | Ministry of Agriculture and Irrigation (Myanmar) |
| **MOECAF** | Ministry of Environmental Conservation and Forestry (Myanmar) |
| **MoEFCC** | Ministry of Environment, Forests and Climate Change (India and Ethiopia) |
| **MPA** | marine protected area |
| **MSC** | Marine Stewardship Council |
| **NBA** | National Biodiversity Assesment (South Africa) |
| **NBAP** | National Biodiversity Action Plan (India) |
| **NBDS** | National Biodiversity Database System (Viet Nam) |
| **NBCC** | National Biodiversity Coordination Committee (Nepal) |
| **NBS** | National Biodiversity Strategy |
| **NBSAP** | National Biodiversity Strategy and Action Plan |
| **NBT** | National Biodiversity Target |
| **NCBC** | National Committee for Biodiversity Conservation (China) |
| **NDP** | National Development Plan |
| **NEC** | National Environmental Council (Columbia) |
| **NEDA** | National Economic Development Authority (Philippines) |
| **NEMA** | National Environnent Management Agency (Uganda) |
| **NGO** | non-governmental organisation |
| **Norad** | Norwegian Agency for Development Cooperation |
| **NRM** | natural resource management |
| **NRMMC** | Natural Resource Management Ministerial Council (Australia) |
| **ODA** | official development assistance |
| **ONF** | National Forestry Office (France), *Office national des forêts* |
| **PA** | protected area |

| | |
|---|---|
| **PBSAP** | Philippine Biodiversity Strategy and Action Plan |
| **PDP** | Philippine Development Plan |
| **PES** | payment for ecosystem services |
| **PEFC** | Programme for the Endorsement of Forest Certification |
| **PFES** | Payment for Forest Ecosystem Service (Viet Nam) |
| **PINE** | Net Internal Ecological Product (Mexico), *Producto Interno Neto Ecológico* |
| **PIR** | Policy and Institutional Review |
| **PPA** | Public Private Alliance |
| **PRSPs** | Poverty Reduction Strategy Papers |
| **Proparco** | Participation Company for Economic Co-operation (France), *Société de promotion et de participation pour la coopération économique* |
| **PSE** | Producer Support Estimate |
| **PSG** | simplified management plan (France), *plan simple de gestion* |
| **REDD** | reducing emissions from deforestation and forest degradation |
| **RTG** | forest management standard regulation (France), *règlement type de gestion* |
| **SAGARPA** | Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (Mexico), *Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación* |
| **SANBI** | South Africa National Biodiversity Institute |
| **SANParks** | South Africa National Parks |
| **SCBD** | Secretariat of the Convention on Biological Diversity |
| **SDC** | Swiss Agency for Development Cooperation |
| **SDG** | Sustainable Development Goal |
| **SECTUR** | Secretariat of Tourism (Mexico), *Secretaría de Turismo* |
| **SEA** | strategic environmental assesment |
| **SEDP** | Socio-Economic Development Plan (Viet Nam) |
| **SEEA** | System of Environmental-Economic Accounting |
| **SEMARNAT** | Secretariat of Environment and Natural Resources (Mexico), *Secretaría de Medio Ambiente y Recursos Naturales* |
| **SFM** | sustainable forest management |
| **SHCP** | Secretariat of Finance and Public Credit (Mexico), *Secretaría de Hacienda y Crédito Público* |
| **SMART** | specific, measurable, attributable, relevant, time-bound |
| **SNA** | System of National Accounts |
| **TAC** | total allowable catch |

| | |
|---|---|
| **TEEB** | The Economics of Ecosystems and Biodiversity |
| **TOSSD** | total official support for sustainable development |
| **UNDP BIOFIN** | United Nations Development Programme Biodiversity Finance Initiative |
| **USAID** | United States Agency for International Development |
| **USD** | US dollar |
| **VAT** | value-added tax |
| **VEA** | Viet Nam Environment Administration |
| **VNFOREST** | Viet Nam Administration of Forestry |
| **VPA** | Voluntary Partnership Agreement |
| **WAVES** | Wealth Accounting and Valuation of Ecosystem Services |

### Box 5.2. **UN Poverty-Environment Initiative indicators for successful environmental mainstreaming**

- Inclusion of poverty-environment linkages in national development and poverty reduction strategies.
- Strengthened capacity within finance/planning ministries as well as environmental agencies to integrate environment into budget decision making, sector strategies and implementation programmes.
- Inclusion of poverty-environment linkages in sector planning and implementation strategies.
- Strengthened capacity in key sector ministries to include environmental sustainability in their strategies.
- Widened involvement of stakeholders in making the case for the importance of environment to growth and poverty reduction.
- Improved domestic resource mobilisation for poverty-environment investments.
- Increased donor contributions to country-level environmentally sustainable investment.
- Improved livelihoods and access to environmental and natural resources for the poor.

*Source:* UNPEI (2007), "Guidance note on environmental mainstreaming into national development planning", www.cbd.int/doc/meetings/nbsap/nbsapcbw-seasi-01/other/nbsapcbw-seasi-01-undp-unep-guide-en.pdf/.

A number of other indicators, specific to biodiversity mainstreaming, have been proposed in the context of the Aichi Biodiversity Targets and the SDGs, in a few National Biodiversity Strategies and Action Plans (NBSAPs), and by multilateral development banks and, to a lesser extent, by or for the private sector. A review of these (below) illustrates the various approaches that are emerging.

Several of the Aichi Biodiversity Targets and the proposed global indicators for these are directly relevant to biodiversity mainstreaming. Strategic Goal A is to address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society. The four targets under this goal and the proposed global indicators for these provide a starting point from which to consider possible indicators for biodiversity mainstreaming. The indicators for Aichi Target 2[6] are shown in Table 5.2 as an example. Aichi Target 3 on incentives is another target relevant to mainstreaming biodiversity.[7] The Biodiversity Indicators Partnership (BIP) currently includes one indicator for Target 1, no indicator for Target 2, one indicator for Target 3, and two (active) for Target 4.[8]

Several of the most recent NBSAPs also refer to indicators to monitor biodiversity mainstreaming (Box 5.3), while others (such as those of Australia, France and Mexico) highlight the ongoing or planned development of indicators as an action in their NBSAPs.[9]

Other indicator initiatives can also be relevant to monitoring progress towards biodiversity mainstreaming. Conservation International (2015), for example, developed a set of national indicators that can be used to monitor progress towards sustainable development in Madagascar, several of which are also relevant for mainstreaming biodiversity. These include, for natural capital, percentage of essential natural capital that has formal protection status (with a baseline of 18%), and deforestation rate within areas of essential natural

capital 2010-12 (with a 0.3% deterioration). For sustainable production, the indicators are annual increase in efficiency (crop yield versus area harvested) (with an improvement of 0.4%) and percentage of essential natural capital with overlapping mining permits (with a baseline of 44%).

Table 5.2. **Indicators for Aichi Biodiversity Target 2 under Strategic Goal A**

| Generic indicator | Specific indicator |
|---|---|
| Trends in incorporating measures of stock and flow of natural resources into national accounting | Number of countries implementing natural resource accounts, excluding energy, within the System of Environmental-Economic Accounting (SEEA) |
| Trends in number of countries that have assessed values of biodiversity, in accordance with the convention | Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020 (indicator for SDG target 15.9) |
| Trends in integration of biodiversity and ecosystem service values into sectoral and development policies | Number of countries that have integrated biodiversity in National Development Plans, poverty reduction strategies or other key development plans |

*Notes:* Data for the first two indicators are not yet available. Roe (2010) is cited as the reference for the third indicator.

*Source:* CBD (2016a), "Indicators for the Strategic Plan for Biodiversity 2011-2020", https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-28-en.pdf.

Box 5.3. **Examples of indicators proposed in NBSAPs to monitor biodiversity mainstreaming**

**Ethiopia**

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.

Target 2. By 2020, the existing biodiversity-related laws, regulations and strategies, including those associated with incentives, are reviewed and gaps are addressed.

*Indicator:* Number of identified incentives that reward positive contributions and addressed perverse incentives.

Target 3. By 2020, biodiversity values and ecosystem services are communicated and integrated into national and local development and poverty reduction strategies and plans.

*Indicator:* Strategies integrating values of biodiversity and ecosystem services.

Target 4: By 2020, habitat conversion due to expansion of agricultural land is halved from the existing rate of about 10% per year.

*Indicator:* Rate of annual conversion of habitats into agricultural land.

**India**

Target 2: By 2020, values of biodiversity are integrated into national and state planning processes, development programmes and poverty alleviation strategies.

*Indicators:* Trends in number of studies on biodiversity-inclusive environmental impact assessments (EIAs), cumulative EIAs and strategic environmental assessments (to be conducted by the Ministry of Economic Affairs and Planning Commission); and trends in identification, assessment, establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystems.

Monitoring/Reporting frequency is every three years.

Box 5.3. **Examples of indicators proposed in NBSAPs to monitor biodiversity mainstreaming** *(continued)*

**Madagascar**

Strategic Objective 2: In 2025, at the latest, biodiversity values, opportunities and benefits of conservation and sustainable use will be recognised and integrated into the country's socio-economic development activities.

Action: 2.1. Consider the values of biodiversity into sectoral strategies and programmes.

*Indicator:* 2.1.1. Number of sectoral plans and strategies incorporating and implementing the values of biodiversity implementation strategies.

**South Africa**

Objective 3: Biodiversity considerations are mainstreamed into policies, strategies and practices of a range of sectors.

Target 3.1: Effective science-based biodiversity tools inform planning and decision making.

*Indicator:* Number of tools developed to support mainstreaming of biodiversity assets and ecological infrastructure in production sectors and resource management. By 2020, 10 new tools produced and 15 knowledge resources demonstrating the value of biodiversity developed and disseminated.

**Viet Nam**

Strategic Goal 3: Strengthened sustainable use and equitable sharing of ecosystems, species and genetic resources.

*Indicator*: Percentage of important degraded ecosystems effectively recovered.

Strategic Goal 4: Reduce direct pressures on biodiversity.

*Indicator*: Rate of loss of natural forests and water surface area due to land-use conversion.

Other domestic initiatives, which have not been explicitly proposed as indicators for biodiversity mainstreaming but which merit consideration as such as they represent important milestones in the mainstreaming process, include national assessments on public subsidies that are harmful to biodiversity, such as the one undertaken by France (Sainteny et al., 2012).

The GEF has also recently developed indicators to monitor and evaluate biodiversity mainstreaming in its relevant GEF-6 programmes (Box 5.4).

Box 5.4. **Indicators for the mainstreaming of biodiversity in production landscapes/seascapes and sectors in the GEF biodiversity strategy**

**Outcomes**

Marine and terrestrial resource use is appropriately situated to maximise production without undermining or degrading biodiversity.

*Indicator:* Area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management.

Box 5.4. **Indicators for the mainstreaming of biodiversity in production landscapes/ seascapes and sectors in the GEF biodiversity strategy** *(continued)*

Production practices and sectoral activities in agriculture, forestry, fisheries, tourism, extractive industries (gas, oil and mining) are biodiversity-neutral, biodiversity-positive or less destructive of biodiversity.

*Indicator:* Area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management.

Increase in the amount of public and private financial flows that address threats to biodiversity.

*Indicator:* Financial resources mobilised for biodiversity management.

Policy and regulatory frameworks remove perverse subsidies and provide incentives for biodiversity-neutral or biodiversity-positive land and resource use that remains productive, but that does not degrade biodiversity.

*Indicator:* The degree to which sector policies and regulatory frameworks incorporate biodiversity considerations and implement the regulations.

*Indicator:* The degree to which biodiversity values and ecosystem service values are internalised in development, finance policy, and land-use planning and decision making.

**Impact**

Globally significant biodiversity conserved and sustainably used in production landscapes and seascapes (areas outside the protected area estate)

*Indicators:* 1) Intact vegetative cover and degree of fragmentation in production landscapes measured in hectares as recorded by remote sensing; 2) Coastal zone habitat and productive seascapes intact as recorded by remote sensing and where possible supported by other verification methods.

*Source:* GEF Secretariat (2016), "Biodiversity mainstreaming in practice: A review of GEF experience".

International organisations also have an important role to play in the context of indicators for biodiversity mainstreaming, as a number of these collect national-level data or have the ability to mobilise resources for global collection of data via satellite data or other means. Examples include the OECD, the Food and Agricultural Organization of the United Nations (FAO), the World Bank, and other research institutions. A recent review of indicators to measure progress on inclusive green growth at the country level (Narlof, Kozluk and Lloyd, 2016) includes several indicators that are relevant to biodiversity mainstreaming (Table 5.3).

Whichever indicators may eventually be used, at national and/or international level, to monitor and evaluate progress towards biodiversity mainstreaming, these need to be practicable. The concept of biodiversity mainstreaming covers multiple dimensions (institutional, national and sectoral plans, policies, budgets); multiple sectors; and various actors (government, private sector, development co-operation). This could in theory lend itself to hundreds of possible indicators, adapted also to national circumstances and socio-economic characteristics. To be able to make broad statements about the effectiveness of biodiversity mainstreaming, ideally one would need to start with a set of core indicators which are fairly easy and inexpensive to collect, and which are comparable across countries. In many ways, the Aichi Biodiversity Targets and the SDGs, together with the

ongoing work on indicators to monitor progress towards these, go a long way towards this. A few other indicators may also merit further consideration.

Ideally, existing national monitoring systems can be adapted to include mainstreaming indicators. UNPEI (2011) identifies seven steps in the integration of poverty-environment linkages in the national monitoring processes, which are also relevant to integrating M&E of biodiversity-development mainstreaming in the national monitoring system (Annex 5.A1). Selecting a core set of indicators (Step 6) is an important element of this, and aims should be made for these to be as consistent as possible across countries, so as to enable aggregation of data at regional and global levels.

## 5.3. Possible indicators for monitoring and evaluating biodiversity mainstreaming

Building on the key mainstreaming elements discussed in Chapters 2 and 3, and the review of indicators discussed above, Table 5.3 provides an overview of possible indicators that could be used to monitor progress towards biodiversity mainstreaming at national and sector level and in development co-operation. The table is not comprehensive and is intended to be illustrative. The type of data needed for these vary, with some requiring a simple binary response (e.g. has a national assessment of subsidies harmful to biodiversity been undertaken – yes/no); others requiring some kind of qualitative response (e.g. how has biodiversity been integrated into other national strategies – such as high, medium or low); and others requiring quantitative data.

Table 5.3. **Examples of possible indicators to monitor progress towards biodiversity mainstreaming**

| Possible indicators | Indicator type | | | | | Data source and availability |
|---|---|---|---|---|---|---|
| | Input | Process | Output | Outcome | Impact | |
| **NATIONAL** | | | | | | |
| Finance mobilised for biodiversity | x | | | | | Work under way. Biodiversity-relevant environmental protection expenditures (OECD, European Environment Agency), CBD national financial reporting, UNDP BIOFIN (Biodiversity Finance Initiative) |
| Trends in incorporation of physical measures of stock and flow of natural capital in natural accounting | | x | | | | World Bank Wealth Accounting and Valuation of Ecosystem Services |
| Implementation of natural resource accounts within the SEEA | | x | | | | |
| Integration of development into NBSAP | | x | | | | Not systematically collected. Roe (2010); OECD this document. |
| Integration of biodiversity into National Development Plan and other relevant national strategies* | | x | | | | Not systematically collected. Prip (2012); OECD this document |
| National ecosystem assessment (or other similar national assessments) | | | x | | | Not systematically collected – see http://catalog.ipbes.net/ |
| National assessment of harmful subsidies (e.g. in agriculture, fisheries, forests, mining, tourism) | | | x | | | N/A |
| Inter-ministerial committee for biodiversity (mainstreaming) | | x | | | | N/A |

Table 5.3. **Examples of possible indicators to monitor progress towards biodiversity mainstreaming** *(continued)*

| Possible indicators | Indicator type: Input | Process | Output | Outcome | Impact | Data source and availability |
|---|---|---|---|---|---|---|
| **SECTORAL** | | | | | | |
| **Generic/Cross-cutting** | | | | | | |
| • Biodiversity integrated into key sectors' policies and plans (e.g. agriculture, forestry, fisheries, mining, tourism)<br>• Trends in incorporation of natural resource, biodiversity and ecosystem service values into sectoral plans (e.g. agriculture, forestry, fishing, mining, tourism) | | x | | | | Not systematically examined |
| Number of biodiversity-relevant taxes, charges and fees, tradable permit schemes | | | | x | | OECD Policy Instruments for the Environment (PINE) database, about 80 countries |
| Number of other policy instruments (e.g. payment for environmental services [PES] schemes, biodiversity offset programmes, other) | | | | x | | Not systematically examined. Ecosystem marketplace. Work planned for OECD PINE database |
| **Agriculture** | | | | | | |
| Trends in percentage of agricultural support that is potentially environmentally harmful, neutral and beneficial | | | | x | | OECD Producer Support Estimate (PSE) database, about 45 countries |
| Changes in land use and cover | | | | x | | OECD Environmental Statistics; FAO, national sources, e.g. CORINE land cover database |
| Percentage of agricultural area under sustainable certification | | | | x | | |
| Number of plant and animal genetic resources for food and agriculture secured in medium- or long-term conservation facilities | | | | x | | FAO |
| Amount of pesticide use per hectare | | | | x | | FAO and OECD Agri-Environment Indicators (AEI) |
| Amount of fertiliser use per hectare | | | | x | | FAO and OECD AEI |
| Agriculture ammonia emissions | | | | x | | OECD AEI |
| Agricultural freshwater withdrawal | | | | x | | OECD AEI |
| Status of water quality | | | | x | | OECD AEI |
| Nitrogen balance | | | | x | | OECD AEI |
| Phosphorous balance | | | | x | | OECD AEI |
| Index of farmland birds | | | | x | | OECD AEI |
| Land degradation (topsoil loss of agricultural land) | | | | x | | FAO Global Assessment of Soil Degradation (GLASOD) 1991, about 145 countries |
| Areas/population exposed to water scarcity | | | | x | | World Resources Institute Aquaduct 2014. Global |
| Water resources exposed to harmful pollution levels | | | | x | | |
| **Fisheries** | | | | | | |
| Number of fisheries with management plans | | | | x | | |
| Number of fisheries with total allowable catch or other quota/licensing | | | | x | | N/A |
| Number of countries with individually transferable quotas for fisheries | | | | x | | OECD PINE |
| Bottom-trawling regulation in environmentally sensitive areas | | | | x | | |
| Percentage of fish from sustainable sources (eco-certification) | | | | | x | |
| Percentage of fish species overexploited or collapsed | | | | | x | FAO, Global (cannot be disaggregated at national level) |

Table 5.3. **Examples of possible indicators to monitor progress towards biodiversity mainstreaming** *(continued)*

| Possible indicators | Indicator type: Input | Process | Output | Outcome | Impact | Data source and availability |
|---|---|---|---|---|---|---|
| **Forestry** | | | | | | |
| Changes in land use and cover | | | | x | | OECD Environmental Statistics, FAO, national sources e.g. CORINE |
| Land with different forest types and change over time | | | | x | | FAO Forest Resource Assessment, most countries |
| Value of forest resource depletion | | | | x | | World Bank World Development Indicators, about 130 countries |
| Percentage of forests with sustainable forest management (SFM) plans | | | | x | | |
| Percentage of harvested timber under sustainable certification | | | | x | | |
| **DEVELOPMENT CO-OPERATION** | | | | | | |
| National strategy to mainstream biodiversity in development co-operation | | x | | | | N/A |
| Percentage of biodiversity-related bilateral ODA in total ODA | x | | | | | OECD CRS |
| Trends in flows and activities marked by development providers as "principal" and "significant" for biodiversity | x | | | | | OECD CRS |

* Other relevant national strategies include, but are not limited to, national sustainable development strategies, green growth strategies and poverty reduction strategies.

*Sources:* Based on CBD (2015a), "Global indicators and sub-global approaches to monitor progress in the implementation of the Strategic Plan for Biodiversity 2011-2020", www.cbd.int/doc/meetings/ind/id-ahteg-2015-01/official/id-ahteg-2015-01-02-rev1-en.pdf; OECD (2013), *Policy Instruments to Support Green Growth in Agriculture*, http://dx.doi.org/10.1787/9789264203525-en; Narlof, Kozluk and Lloyd (2016), *Measuring Inclusive Green Growth at Country Level*.

# *Annex 5.A1*

## UNPEI steps in integration of mainstreaming into national monitoring processes

UNPEI (2011) defines seven steps in the integration of mainstreaming poverty-environment linkages in the national monitoring processes in its *Mainstreaming Environment and Climate for Poverty Reduction and Sustainable Development: A Handbook to Strengthen Planning and Budgeting Processes*. These are:

1. **Review literature and experience in other countries.** Undertaking a literature review helps identify issues that need to be taken into account in mainstreaming poverty-environment objectives into a monitoring system. Examples from a growing number of countries are available, outlining the process they have undertaken in the adoption of poverty-environment indicators.
2. **Analyse national priorities and identify entry points.** National monitoring systems are subject to continuous review and data collection cycles (e.g. five-year household surveys) that are closely linked with the review and elaboration of five-year National Development Plans and sector strategies. Timelines and targets need to be mapped out in order to inform and influence national monitoring systems at a strategic point in the review and planning cycle.
3. **Identify key institutions and establish cross-sectoral working groups.** Delineate the national, sector and subnational monitoring systems in place and the institutions charged with co-ordinating their application and those responsible for data collection. As noted above, the national statistics office, working in close collaboration with the ministry of planning, is typically responsible for the monitoring system; sector ministries are responsible for collecting data over time for a cluster of thematic indicators. Establish working relationships with these institutions and make the case to them on the benefits of revisiting and/or adding poverty-environment indicators into existing systems.
4. **Analyse existing monitoring and reporting systems.** National monitoring systems often ignore linkages with the environment, while environmental monitoring systems tend not to consider the poverty impacts of environmental changes. Assessing existing national monitoring systems and their associated data collection and reporting components provides essential information which can inform and influence changes to better reflect poverty-environment linkages. In addition, the availability, quality and relevance of existing datasets and indicators (including gender disaggregation) should be analysed, along with the institutional roles and responsibilities for collecting, analysing and reporting on data.
5. **Identify possible poverty-environment linkages through a consultative process.** Possible indicators should be formulated through a participatory process, drawing

on sector experts and statisticians from the national statistics office. The process should be embedded in the elaboration and monitoring of national/subnational development policy and planning and/or sectoral strategy processes. It should be informed by quality criteria and respond to the need to capture progress and change resulting from the implementation of priority initiatives contained in national plans and sector strategies, as funded by public- and private-sector funds. Indicator formulation could be preceded and informed by a commissioned study that offers a range of poverty-environment indicators, complete with definitions, purpose, institutional roles and responsibilities, and data collection protocols. Another useful input is sector or thematic indicators proposed under other national and/or global initiatives. For instance, national climate change adaptation and mitigation strategies, NBSAPs and green economy strategies have formulated specific indicators that could be considered.

6. **Select a core set of indicators.** Through a consultative process with policy makers from the ministries of planning and key sectors and the national statistics office, practitioners should facilitate a process in which a core set of indicators is selected from among the possible poverty-environment indicators identified in the preceding step. Keep the number of proposed new indicators realistic, as the national statistics office will raise justified concerns related to the costs of data collection, the feasibility of regular data collection and how the data will be used for reporting.

7. **Continuous review and refinement.** The adoption and application of poverty-environment indicators can take five to ten years, owing to the cyclic planning and monitoring process. National development policies and plans and sector strategies are normally subject to five-year review and formulation cycles, and national monitoring systems are linked to these. Experience shows that an indicator can be adopted in the national monitoring system but no data be collected on it over time, either because of a lack of institutional ownership to put data collection systems in place or because it has been determined that data collection is not technically or economically feasible. Consequently, the effectiveness of proposed indicators should be reviewed periodically and indicators dropped or refined accordingly.

## Notes

1. M&E can also address the development and validation of the theory of change underpinning mainstreaming interventions. Theory of change is a specific type of methodology for planning, participation and evaluation that is used in the philanthropy, not-for-profit and government sectors to promote social change.
2. The terms "biodiversity" and "development" are not always clearly defined, or defined differently for different programmes, making it difficult to compare and assess performance (Davies et al., 2013).
3. Contextual factors are a source of inputs and constraints to inputs, processes, outputs, outcomes and impacts; conversely, inputs, processes, outputs, outcomes and impacts feed into the context. Examples of contextual factors include political leadership and stability, and macroeconomic and fiscal policies (Thomas, 2014).
4. Huntley and Redford (2014) classify mainstreaming indicators in seven categories: spatial, government, private sector, individual-based, multilateral donor, poverty alleviation and markets for ecosystem services.
5. According to Scheerens et al. (2011), indicator data should also be sufficiently granular or disaggregated so as to allow for better adjustments and valid causal inferences.
6. Aichi Target 2 states: "By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems".
7. Aichi Target 3 is to encourage positive incentives and to reform incentives, including subsidies, that are harmful to biodiversity.
8. These are: Target 1: Biodiversity barometer; Target 3: Trends in potentially harmful elements of government support to agriculture; number of countries with biodiversity-relevant taxes; number of countries with biodiversity-relevant fees and charges; number of countries with biodiversity-relevant tradable permit schemes; Target 4: ecological footprint and Red List Index.
9. Ireland has also defined indicators for measures that mainstream biodiversity and use the green, yellow, red traffic light signal to indicate the level of progress. For more information see: http://indicators.biodiversityireland.ie/index.php?qt=fa&id=5.

## *References*

CBD (2016a), "Indicators for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets", Convention on Biological Diversity, Cancun, https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-28-en.pdf.

CBD (2016b), "Strategic actions to enhance the implementation of the Strategic Plan for Biodiversity 2011-2020 and the achievement of the Aichi Biodiversity Targets," CBD, Cancun.

CBD (2015a), "Global indicators and sub-global approaches to monitor progress in the implementation of the Strategic Plan for Biodiversity 2011-2020", report for the Ad Hoc

Technical Expert Group Meeting on Indicators for the Strategic Plan for Biodiversity, Geneva, 14-17 September 2015, www.cbd.int/doc/meetings/ind/id-ahteg-2015-01/official/id-ahteg-2015-01-02-rev1-en.pdf.

Conservation International (2015), "Monitoring natural capital and human well-being in Madagascar: National indicators for sustainable development", Conservation International, Arlington, Va.

Davies, T.E. et al. (2013), "Missing the trees for the wood: Why we are failing to see success in pro-poor conservation", *Animal Conservation*, Vol. 17/4, Zoological Society of London, pp. 303-312, https://doi.org/10.1111/acv.12094.

Drutschinin, A. et al. (2015), "Biodiversity and development co-operation", *OECD Development Co-operation Working Papers*, No. 21, OECD Publishing, Paris, http://dx.doi.org/10.1787/5js1sqkvts0v-en.

GEF Secretariat (2016), "Biodiversity mainstreaming in practice: A review of GEF experience", Global Environmental Facility, Washington, DC.

Horsch, K. (1997), "Indicators: Definition and use in a results-based accountability system", *Reaching Results*, Harvard Family Research Project, Harvard Graduate School of Education.

Huntley, B.J. and K.H. Redford (2014), "Mainstreaming biodiversity in practice: A STAP advisory document", GEF, Washington, DC, www.cbd.int/doc/case-studies/inc/Mainstreaming-Biodiversity-LowRes.pdf.

Narlof, U., T. Kozluk and A. Lloyd (2016), "Measuring inclusive green growth at the country level: Taking stock of measurement approaches and indicators", GGKP (Green Growth Knowledge Platform) Research Committee on Measurement & Indicators, Working Paper 02/2016, United Nations Environment Programme, Geneva.

OECD (2017), *Green Growth Indicators 2017*, OECD Green Growth Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264268586-en.

OECD (2015a), "Biodiversity and Development: Mainstreaming and Managing for Results", OECD Workshop Co-chairs' Summary, 18 February 2015, www.oecd.org/dac/environment-development/Biodiversity%20and%20Development%20Workshop%20Co-Chairs%20Summary_FINAL_clean.pdf.

OECD (2015b), *National Climate Change Adaptation: Emerging Practices in Monitoring and Evaluation*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264229679-en.

OECD (2013), *Policy Instruments to Support Green Growth in Agriculture*, OECD Green Growth Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264203525-en.

OECD (2011), *Towards Green Growth: Monitoring Progress: OECD Indicators,* OECD Green Growth Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264111356-en.

OECD (2002), *Evaluation and Aid Effectiveness No. 6 – Glossary of Key Terms in Evaluation and Results Based Management (in English, French and Spanish)*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264034921-en-fr.

Prip, C. et al. (2010), *Biodiversity Planning: An Assessment of National Biodiversity Strategies and Action Plans,* United Nations University Institute of Advanced Studies, Yokohama, Japan.

Roe, D. (2010), "Linking biodiversity conservation and poverty alleviation: A state of knowledge review", *CBD Technical Series*, No. 55, Secretariat of the Convention on Biological Diversity, Montreal, www.cbd.int/doc/publications/cbd-ts-55-en.pdf.

Sainteny, G. et al. (2012), *Public Incentives that Harm Biodiversity*, Centre d'analyse strategique, Paris.

Scheerens, J. et al. (2011), *Perspectives on Educational Quality: Illustrative Outcomes on Primary and Secondary Schooling in the Netherlands*, Springer Netherlands.

Thomas, J. (2014), "Defining and assessing success in mainstreaming", Background Paper, IIED (International Institute for Environment and Development), London, http://pubs.iied.org/pdfs/G03828.pdf.

UNICEF (2003), "M&E Training Modules", Section 2.3: Indicators, www.ceecis.org/remf/Service3/unicef_eng/module2/index.html.

UNPEI (2011), *Mainstreaming Environment and Climate for Poverty Reduction and Sustainable Development: A Handbook to Strengthen Planning and Budgeting Processes*, UNDP (United Nations Development Programme)-UNEP Poverty Environment Initiative, www.unpei.org/sites/default/files/publications/PEI%20handbook-low%20res.pdf.

UNPEI (2007), "Guidance note on environmental mainstreaming into national development planning", UNPEI, Nairobi, www.cbd.int/doc/meetings/nbsap/nbsapcbw-seasi-01/other/nbsapcbw-seasi-01-undp-unep-guide-en.pdf/.

# ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, Colombia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
(97 2018 09 1 P) ISBN 978-92-64-30319-5 – 2018

# Mainstreaming Biodiversity for Sustainable Development

The need to mainstream biodiversity into economic growth and development is being increasingly recognised and is now also firmly embedded in the Sustainable Development Goals. Drawing on experiences and insights from 16 predominantly megadiverse countries, this report examines how biodiversity is being mainstreamed in four key areas: 1) at the national level, including national development plans and other strategies, institutional co-ordination and national budgets; 2) the agriculture, forestry and fisheries sectors; 3) in development co-operation; and 4) the monitoring and evaluation of biodiversity mainstreaming and how this could be improved.



OECD*publishing*
www.oecd.org/publishing

European Commission

**ISBN 978-92-64-30319-5**
**97 2018 09 1 P**