



INSIGHTS ON ON-GOING OECD WORK ON

Biodiversity Policy Response Indicators to contribute to monitoring progress towards Aichi Target 3 (on incentives) and Target 20 (on resource mobilisation)

The Strategic Plan for Biodiversity 2011-2020, and specifically the Aichi Biodiversity Targets, agreed upon at the 10th Conference of the Parties to the Convention on Biological Diversity (CBD) in Nagoya, Japan (2010), specify 20 targets that Parties should use to develop their national targets. In 2011, Parties also agreed on the need for indicators to monitor progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020.

While some progress has been made towards reviewing and refining existing indicators and developing new ones for the 2011-2020 Aichi Biodiversity Targets, much work still remains. Several of the Targets, such as Target 3 (on incentives) and 20 (on resource mobilisation), still lack adequate indicators. Moreover, the indicative list of indicators proposed for Target 3 are still fairly broad (see Box 1). Given the time lag involved in identifying, agreeing, and subsequently collecting and reporting on data for environmental indicators, the 2020 deadline by which these biodiversity targets are agreed to be met is not far away. Significant work is therefore needed in this area if meaningful indicators are to be developed, and the data for these indicators collected, in time to assess progress by 2020.

The OECD is currently undertaking work that aims to inform on the types of biodiversity response indicators that may be suitable for monitoring progress towards the implementation of the 2011-2020 Aichi Biodiversity Targets. More specifically, the OECD is examining possible relevant policy response indicators that could be used to monitor progress towards the achievement of Target 3 and Target 20.

Response indicators refer to actions that are being undertaken to help address the pressures on, and often deteriorating state of the environment, and show the extent to which society responds to environmental concerns through environmental and economic policies. While response indicators can refer to measures undertaken by governments, firms, and households, only policy response measures on behalf of governments are currently being examined in this OECD work. Policy response indicators for biodiversity are important because they (i) allow monitoring and evaluation of biodiversity policy development, including the extent of policy reform achieved by countries over time, and (ii) provide a common base for policy dialogue by providing a consistent and comparable method to evaluate the nature and incidence of biodiversity-relevant policies.

Box 1. Aichi Targets 3 and 20 and the respective headline and operational indicators

Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.	
Headline	Trends in the integration of biodiversity, ecosystem services, and benefits sharing into planning, policy formulation and implementation and incentives.
Operational	• Trends in the number and value of incentives, including subsidies, harmful to biodiversity, removed, reformed or phased out • Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to biodiversity and ecosystem services and penalize adverse impacts
Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilisation should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	
Headline	Trends in mobilisation of financial resources
Operational	(1) Aggregated financial flows, in the amount and where relevant percentage, of biodiversity-related funding, per annum, for achieving the Convention's three objectives, in a manner that avoids double counting, both in total and in, <i>inter alia</i>, the following categories: (a) Official Development Assistance (ODA); (b) Domestic budgets at all levels; (c) Private sector; (d) Non-governmental organizations, foundations, and academia; (e) International financial institutions; (f) United Nations organizations, funds and programmes; (g) Non-ODA public funding; (h) South-South cooperation initiatives; (i) Technical cooperation. (see Decision X/3 of COP-10 for the full list of operational indicators)

Questions this OECD work aims to address are:

- What are the intended objectives of Aichi Biodiversity Target 3 and 20?
- What are the data implications regarding indicator needs to monitor progress towards these Targets?
- To what extent can existing relevant (OECD) datasets be used for this purpose?
- What types of modifications or adjustments to methodology and data collection may be useful (and feasible) to better meet this purpose?

This work therefore examines the following OECD databases:

- OECD/EEA database on instruments used for Environmental Policy and Natural Resources Management - (for Target 3)
- OECD Agriculture Producer and Consumer Support Estimates – (for Target 3)
- OECD Government Financial Transfers to Fisheries – (for Target 3)

- OECD Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels - (for Target 3)
- OECD DAC Creditor Reporting System and Rio markers – (for Target 20)
- OECD and Eurostat Environmental Protection Expenditures and Revenue – (for Target 20)

For each of these datasets, the existing structure and information collected in the datasets is being reviewed and assessed, and gaps and data limitations as they pertain to the reporting purposes of the CBD are highlighted. Given the caveats that are raised, as well as the upcoming need to assess progress on the achievement of the Aichi Biodiversity Targets, including Target 3 and 20, in 2020, the analysis aims to provide policy-makers and negotiators with the information needed to consider whether the existing OECD datasets could be used and built upon so as to further develop indicators that are useful for the CBD.

Possible data and indicators to monitor progress towards Aichi Target 3

Incentives, including subsidies, harmful to biodiversity can emanate from economic, legal and institutional policies designed for other objectives yet result in unsustainable or damaging behaviour. Positive incentives for the conservation and sustainable use of biodiversity include regulatory approaches, economic instruments, and information instruments. The focus of on-going OECD work is on *economic instruments* that may impact on biodiversity. In this context, four OECD databases are being examined to identify possible indicators to monitor incentives with both potentially beneficial and potentially harmful effects on biodiversity

The analysis here of economic incentives provides a starting point by considering available, international data that may contribute to the development of indicators for the purpose of the CBD. While this is a necessary step in monitoring progress towards the implementation of Target 3, in some areas further (e.g. more qualitative) information will be useful to evaluate and measure success.

I. The OECD/EEA database on instruments used for Environmental Policy and Natural Resources Management

Description of the dataset

The OECD collaborates with the European Environment Agency (EEA) to collect information on the use of environmental policy instruments. Data collection began in 1998 and currently includes data from 53 countries¹. The database is updated annually, though some of the records are older. Data is collected at the instrument level on:

- environmentally related taxes, fees and charges
- deposit refund systems
- environmentally motivated subsidies
- tradable permit systems
- voluntary approaches

¹ Tax rate information is available from 2000 and tax revenue information from 1994. For all other information, the data begins in 2005.

Economic instruments are further classified according to the following environmental domains in which the policy is directed:

- water pollution
- air pollution
- climate change
- land contamination
- waste management
- natural resources management
- noise
- energy efficiency
- transport
- land management

While there is no explicit environmental domain for biodiversity *per se*, several of the existing domains provide relevant information and could possibly be re-classified as such. The most biodiversity-relevant environmental domain is that labelled natural resource management. Each domain is associated with the relevant instrument that is in place (e.g., environmentally-motivated subsidies, charges and fees and taxes). Others categories of environmental domains are also relevant to biodiversity, such as water pollution and land management. Certain environmental domains are likely to exert a more direct influence on biodiversity than others. For instance, incentive measures for natural resource management, land management, and water pollution have clear benefits for biodiversity. Instruments in other environmental domains may have less direct impacts on biodiversity, but are still relevant. Examples include instruments for climate change, air pollution, and land contamination policies. Yet other domains, such as waste management, could have direct or indirect impacts on biodiversity depending on the policy objective and instrument used.

Possible indicators

This database provides a good framework and template for further investigation of the development of a set of indicators for positive incentives for biodiversity. A future consideration is to re-classify the database to incorporate biodiversity as its own environmental domain, to introduce explicit labels for instrument categories for payments for ecosystem services and biodiversity offsets, and to request more detailed information on geographic scope of the instruments. The types of proxy indicators that could then be extracted from this database to help monitor progress towards Aichi Biodiversity Target 3 (in the context of positive incentives) include:

- (1) The number of countries implementing positive incentives (by type) for biodiversity over time.
- (2) The number of positive incentives for biodiversity by instrument type implemented over time.
- (3) The number of positive incentives by sector (fish, forestry, agri-biodiversity, etc.) over time.
- (4) The revenue generated (or expenditure created) by positive incentives for biodiversity (as relevant) over time.²
- (5) The number of hectares under positive incentive programmes (by country, by instrument, in total, etc).

Ideally, the incentives that would be included in the indicator set to monitor progress towards Target 3 would be those that are effective, and thus measured using some quantitative outcome. Since outcome

² This information is also relevant for the Strategy for Resource Mobilization: Indicator 14 is intended to measure the number of initiatives, and respective amounts of new and innovative financial mechanisms, which consider intrinsic values and all other values of biodiversity.

information is unlikely to be available, economic value (4) or geographic scope (5) – which creates a measure of government effort rather than biodiversity outcome - is a step in this direction.

II. OECD Agriculture Producer and Consumer Support Estimates

Agriculture provides many benefits to the environment and plays an important role in contributing ecosystems services, including carbon sequestration, nutrient cycling, food production, and habitat for wildlife. Some agricultural practices, however, produce harmful effects on the environment, including air and water pollution, soil degradation, and land fragmentation which may result in the loss of biodiversity. Understanding the implications of agricultural practices on biodiversity requires looking both within the agro-ecosystem and other terrestrial and aquatic ecosystems affected by farming practices.

Description of dataset

OECD countries transfer approximately USD 250 billion in support to the agricultural sector every year. The OECD uses a comprehensive system for measuring and classifying support to agriculture – the Producer and Consumer Support Estimates (PSE and CSE) and related indicators. The indicators were mandated by OECD Ministers in 1987 and have since been calculated for OECD and an increasing number of non-OECD countries. Currently, the dataset includes 47 countries with annual estimates covering the period from 1986 to present³.

Policy measures supporting producers are classified according to the implementation criteria. For a given policy measure, the implementation criteria are defined as the conditions under which the associated transfers are provided to farmers, or the conditions of eligibility for the payment. Policy measures are thus classified by (i) the basis upon which support is provided (a unit of output, an animal head, a land unit, etc.); (ii) whether support is based on current or non-current production parameters; (iii) whether production is required to receive support or not; (iv) whether the payment rate is fixed or variable; and (v) whether the policy transfer is specific or variable, among other measures.

These policy characteristics affect producer behaviour, and distinguishing policies according to implementation criteria enables further analysis of policy impacts on production, trade, income, the environment, etc., which in turn may have direct and indirect effects on biodiversity. The current PSE classifications are as follows:

- A. Support based on commodity output (Market Price Support and payments based on output).
- B. Payments based on input use.
- C. Payments based on current A/AN/R/I⁴, production required.
- D. Payments based on non-current A/AN/R/I, production required.
- E. Payments based on non-current A/AN/R/I, production not required.
- F. Payments based on non-commodity criteria.

In addition to the above PSE classification scheme, a set of labels may also be applied to certain policy characteristics relating to the provision of support. One label of note identifies payments that are

³ Data on emerging economies have been collected since 1995 with the exception of Indonesia and Kazakhstan, which were added in 2013.

⁴ The letters stand for Area (A), Animal Numbers (AN), Receipts (R) or Income (I).

conditional on voluntary environmental input constraints, which require farmers to voluntarily adhere to a set of production practices in order to obtain the payment. These payments support activities such as, i) organic crop farming, ii) managing grasslands or maintaining environmentally sensitive areas, iii) converting land to wetlands and ponds, and iii) maintaining wildlife habitats, which could all have a positive impact on biodiversity. It is important to note that overall the dataset measures the *provision* of support to agricultural producers and not the *impact* of support and therefore result in some limitations to interpretation of the dataset in terms of the impact on the environment and biodiversity.

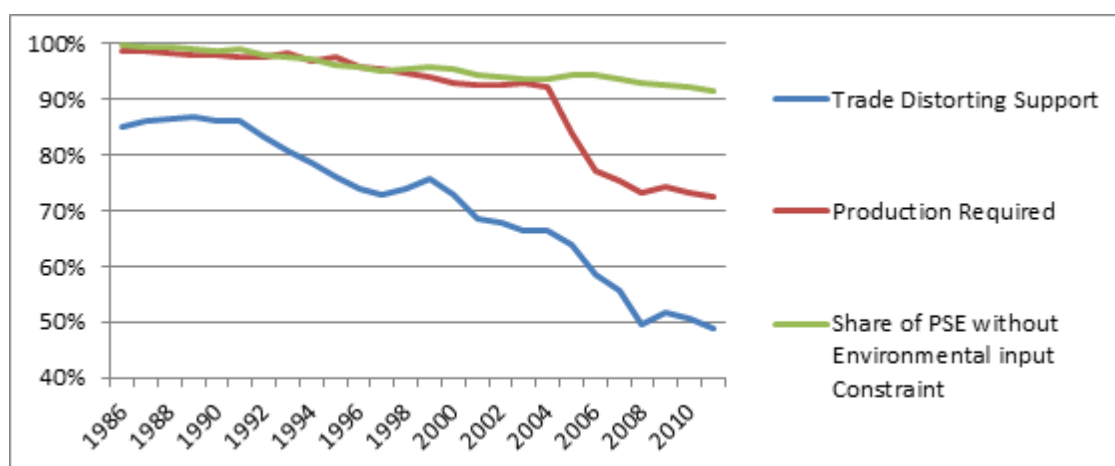
Possible indicators

This database could, as a starting point, be used to develop proxy indicators that monitor progress towards i) the elimination, phasing out and reform of support measures to agricultural producers that are potentially harmful to biodiversity, and ii) support measures that provide potentially positive incentives for the conservation and sustainable use of biodiversity. The possible proxy indicators that could be constructed from this database are:

- (1) Proportion and amount of PSE support not tied to production.
- (2) Proportion and amount of PSE support to the potentially most harmful subsidies (Market Price Support + Commodity Output + Non-constrained variable input use).
- (3) Proportion and amount of PSE with environmental input constraints.
- (4) Payments based on non-commodity criteria.

As can be seen from the figure below, support to the agriculture sector with potentially harmful effects on biodiversity have been decreasing over time. Such indicators would ideally be complemented with additional country-specific qualitative information on how these support measures impact on biodiversity, given the specific local environmental conditions and other locally specific factors.

Figure 1. Trends in PSE composition to OECD Members (1986 - 2010)

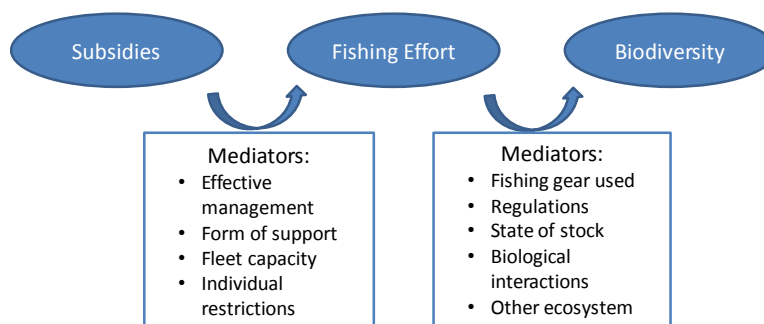


Source: OECD PSE/CSE Database, 2013 – OECD Members only.

III. OECD Government Financial Transfers to Fisheries

Marine fisheries are common pool resources with complex incentive structures. Subsidies to the fisheries sector in the form of direct payments, such as income support, and cost reducing transfers, such as subsidized loans for vessels and equipment, can alter the incentive structure to increase capacity, defined as the total amount of fish that can be harvested over a period of time. Increasing capacity can result in larger and more powerful vessels, more sophisticated fishing gear, and other effort inputs such as time spent at sea and human labour. The full effect of these transfers on biodiversity, however, depends on a multitude of mediating factors, such as the status of the fishery and how effectively management and enforcement efforts can constrain the incentive to expand fishing efforts (see Figure 2). Therefore, indicators monitoring financial support measures would need to be supplemented by additional information, particularly on management regimes.

Figure 2. Mediators of Impacts on GFT Policies



Description of the dataset

The fisheries sector in OECD countries receives approximately USD 6.4 billion a year in transfers from the government. The OECD collects and disseminates data concerning Government Financial Transfers (GFT) to fisheries. GFTs are indicators of financial support paid to the fisheries sector by government and are classified under one of three broad headings:

- A. Direct payments to fishers: primarily directed at increasing the income of fishers.
- B. Cost reducing transfer: aimed at reducing the costs of fixed capital and variable inputs.
- C. General services: transfers not necessarily received directly by fishers, but which nevertheless reduce the costs faced by fishers (includes management, research and enforcement services, as well as the provision of infrastructure).

Possible indicators

The current structure of the GFT dataset does not allow for an exact assessment of changes in the total composition of support away from potentially harmful measures and towards potentially beneficial measures, as many of the anticipated effects on biodiversity are undetermined. It is possible, however, to construct an indicator from the current GFT database that monitors the intensity of government support measures to marine capture fisheries that are anticipated to have a negative impact on biodiversity, caveating that without complementary information on a) the state of the fish stock, b) fishing methods employed, c) management regimes and d) effective enforcement of management regimes, the actual impacts on biodiversity are less certain. A possible indicator that could be constructed from the current database is:

- (1) Proportion and amount of GFTs with potential negative impacts on biodiversity (grants and subsidised loans for vessel construction, modernisation and equipment, interest subsidies, fuel tax exemptions, insurance rebates and subsidies, and income tax rebates for fishers and unpaid social contributions).

In the future, it may also be possible to include the use of labels to identify support measures with behavioural constraints⁵. This label could identify support measures provided under the condition that fishers respect certain fishing practices considered environmentally friendly, such as through the use of reduced bycatch fishing gear, or adopting more environmentally friendly fishing methods. An indicator could then be constructed to monitor the proportion and amount of financial transfers with behavioural constraints:

- (2) Proportion and amount of GFTs with behavioural constraints.

IV. OECD Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels

The production (e.g. extraction) and consumption (e.g. burning) of fossil fuels contribute to land degradation, fragmentation, air and water pollution as well as climate change, all of which have been identified as some of the main pressures driving biodiversity loss⁶. Governments support the production and consumption of fossil fuels through a variety of measures, such as the direct transfer of funds, or through tax concessions.

Description of the dataset

The OECD Inventory takes stock of a broad set of measures that support the use (CSE) or production (PSE) of fossil fuels (classified by type: coal, natural gas, and petroleum)⁷. Caution must be exercised in aggregating and interpreting these support measures, as the majority of mechanisms identified in the inventory are tax concessions, which are based on the *relative* preferences within a country's tax system and estimated with reference to a benchmark tax treatment set by that country. These benchmarks vary from country to country, so the value of these support measures is not comparable across countries. In addition, a change in fossil fuel support (through tax expenditures) may not influence the incentive structure of fossil fuel producers or consumers. For instance, if a farmer receives a tax exemption for fossil fuels, the value of that exemption is based on the amount the farmer would have to pay if they were not exempt. If a government increases the overall fossil fuel tax, and farmers still enjoy their tax exemption privilege, the indicator will reflect that the value of support to farmers increased, although in fact this increase will likely not impact the farmer's behaviour, and thus will likely not result in an increase in fossil fuel consumption.

In addition, aggregating tax expenditure estimates may be problematic, as the revenue foregone method of estimating the value of a tax concession assumes that the removal of the concession would not lead to a change in behaviour, a problem which is compounded when aggregating tax expenditures together. These limitations must be caveated when interpreting both national and global estimates.

⁵ The current classification system of the database is presently under review by the OECD Committee for Fisheries.

⁶ [OECD \(2012b\). *OECD Environmental Outlook to 2050: The Consequences of Inaction*, OECD Publishing. <http://dx.doi.org/10.1787/9789264122246-en>](http://dx.doi.org/10.1787/9789264122246-en)

⁷ See OECD (2012) Policy Brief on “An OECD-Wide Inventory of Support to Fossil-Fuel Production or Use”.

Possible indicators

Measuring the absolute value of fossil fuel support would not be appropriate for developing national level indicators to monitor incentive reform for fossil fuels, however indicators that measure the change in support measures over time could be used as a national indicator, noting the number of caveats raised above.

- (1) Change in total amount of production and consumption support over time (e.g. in % from a predetermined base year).

In addition, because of GHG effects of coal consumption are substantially higher than oil or natural gas, and considering that climate change is anticipated to be one of the main drivers of biodiversity loss in the coming decades⁸, another indicator to monitor incentive reform to fossil fuels could include only support to coal production and consumption:

- (2) Change in total amount of production and consumption support to coal products over time (e.g. in % from a predetermined base year).

Possible data and indicators to monitor progress towards Aichi Target 20 on resource mobilisation

Parties to the CBD committed to substantially increase resources from all sources in support of the achievement of the Convention's three objectives. The operational indicators for Target 20 were agreed upon and adopted in Decision X/3 of COP-10 to monitor the implementation of the strategy for resource mobilisation. Indicator 1 (see Box 2) is intended to monitor financial flows both in total and in a variety of categories. Data collected by the OECD may be able to contribute to these reporting needs.

The analysis of quantitative indicators discussed here provides an important starting point for the purpose of the CBD. It will be useful to complement these indicators by a qualitative analysis, which could attempt to monitor the *impact* for biodiversity of the financial flows.

V. OECD DAC Creditor Reporting System and Rio markers

Description of the dataset

The OECD Development Assistance Committee's (DAC) Creditor Reporting System (CRS) includes data on international resource flows covering bilateral and multilateral official development assistance (ODA), and other official flows (OOF). Official aid can be distributed in one of three ways; either i) directly to recipient countries through bilateral aid projects, ii) channeled through multilateral institutions through earmarked projects (multi-bi projects), or iii) to multilateral institutions through core contributions. For bilateral ODA by members of the OECD DAC, data is available at activity level. Together with a range of descriptive information on finance flows, the CRS also contains information on the policy objectives of activities through the use of Rio markers, which identify activities targeting the objectives of three Rio conventions (UNFCCC, CBD, and UNCCD). Each activity reported to the CRS is screened and marked against the biodiversity marker, identifying the extent to which the activity is targeting biodiversity objectives as either a *principal* objective, a *significant* objective or not at all. These policy markers are

⁸ Millennium Ecosystem Assessment (2005). Ecosystems and Human Well-being: Biodiversity Synthesis. World Resources Institute, Washington, DC.

descriptive rather than quantitative, allowing for an approximate quantification representing an “estimate” or “upper bound” of biodiversity-related aid.

The DAC statistical framework is based on standardised definitions, rules, classifications and bases of measurement. These methodologies for financial data collection and reporting could serve as a point of reference towards more consistent measurement methodologies, and could be built on for measuring and monitoring biodiversity finance.

Possible indicators

Originally Rio markers were designed to help OECD DAC members in their preparation of National Reports to the CBD, through measuring official development finance targeting the objectives of the Rio Conventions. In recent years however, new financial commitments on behalf of developed country Parties have emerged together with concerns regarding the limitations in the direct use of Rio marker data for reporting against quantified finance goals - given such data may provide only an approximate quantification of finance flows targeting biodiversity.

Whilst a large number of members draw on Rio markers to provide the *basis* for their reporting to the CBD, in doing so a recent OECD DAC survey has revealed that many members are applying coefficients to adjust the share of finance reported internationally to the Rio Conventions. There is however no agreed approach to this and little evidence to inform the scale of these adjustments, which leads to a range of coefficients being used. This is particularly the case with respect to *significant* marker data, where parties apply coefficients to the markers that vary from 0% to 100% (OECD DCD, 2014 *forthcoming*).

Multilateral ODA is not Rio marked within the CRS system but work is underway under the OECD DAC Joint ENVIRONET-WP-STAT Task Team⁹ to reconcile “green” multilateral finance flows and going forward, through increased collaboration with MDB’s, it may be possible to calculate *imputed multilateral contributions* targeting biodiversity.

Other official flows (non-ODA, i.e. non-concessional flows) are not yet Rio marked by all members, but a formal decision in 2011 was adopted to mark non-export credit OOF on a voluntary basis. Once members begin to apply the Rio markers, these figures can be used to report on non-ODA public funding.

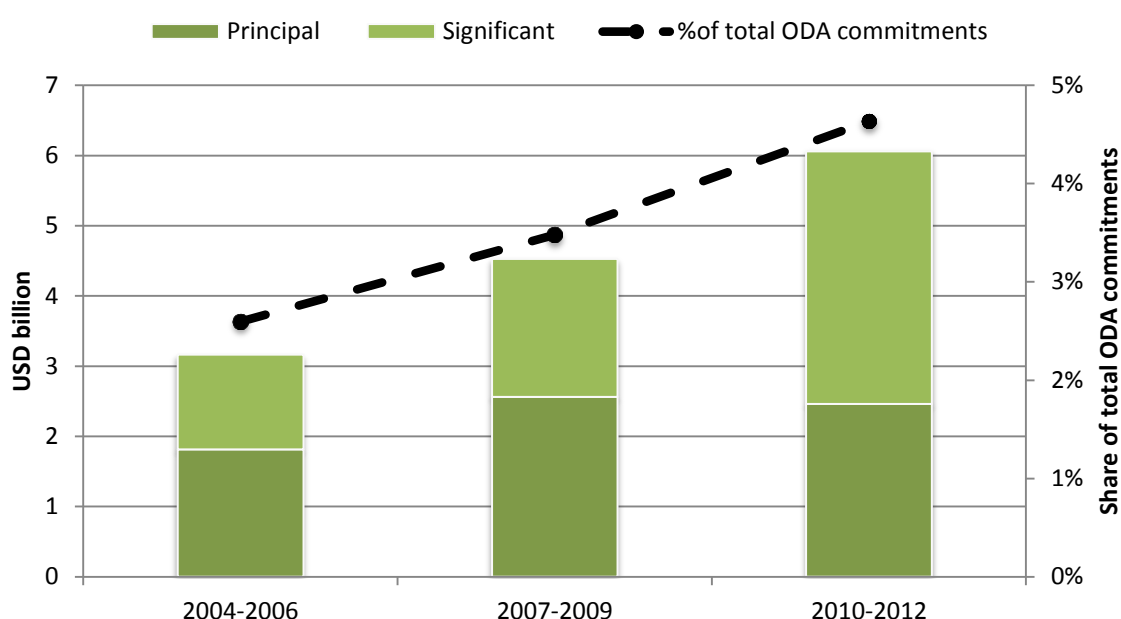
⁹ The OECD DAC Joint Task Team of the Network on Environment and Development Co-operation (ENVIRONET) and Working Party on Development Finance Statistics (WP-STAT) on improvement of Rio markers, environment and development finance statistics was revived in November 2013. The overarching goal is to ensure that DAC methodologies and data remain the reference for the international community in measuring Official Development Assistance (ODA) and non-export credit Other Official Flows (OOF) related to climate change, biodiversity, desertification and other environmental concerns. For further information please contact Valerie.Gaveau@OECD.org and Stephanie.Ockenden@OECD.org. Work is underway through the task team to improve the data:

- **Quality:** improving members’ application of the Rio markers and reporting to DAC on ODA and OOF, and options to improve the definitions and application of the environment and Rio markers;
- **Coverage:** greater collaboration with MDBs to improve the reconciliation of “green” multilateral finance flows within DAC statistics and for DAC to lead in developing a system for attributing multilateral environmental-related finance flows;
- **Use:** exploring options and basis for developing a harmonised methodology for how to use Rio marker data for reporting to the Conventions, and for continued co-operation with the Rio conventions;
- **Communication:** improving the communication, user access and online profile of the OECD DAC environmental data, to make data more accessible, including providing training to OECD and partner countries on how to draw on the data.

The CRS provides a framework to report on South-South cooperation initiatives, however very few countries are voluntarily reporting to date. In addition, the DAC statistical system does not explicitly track capacity building/technology transfers within the ODA portfolio, but aid can be monitored to a given sector and to capacity building-type activities based on categories. These figures, however, would be a subset of total bilateral ODA¹⁰. Total bilateral biodiversity-related aid commitments by members of the OECD DAC reached USD 6.1 billion, on average, per year in 2010-2012, representing 5% of total ODA commitments (Figure 10). A majority of these funds (59%) targeted biodiversity as a significant objective, while 41% targeted biodiversity as the principal objective. The average growth in biodiversity-related funding is primarily coming from aid activities that incorporate biodiversity as a significant rather than primary objective.

Figure 3. Trends in biodiversity-related aid, three-year averages

2006-2012, bilateral commitments, USD billion, constant 2011 prices



Source: OECD DAC Statistics, Aid to Biodiversity, (March 2014).

VI. OECD and Eurostat data on Environmental Protection Expenditures and Revenue

Description of the dataset

The OECD and Eurostat collect environmental protection expenditure and revenue data from all OECD countries and European Union member states, as well as candidate countries and EFTA countries. Expenditures are classified into four main sectors: public, business (mining and quarrying; manufacturing; and electric, gas and water supply), households, and specialised producers (both public and private enterprises) of environmental protection services (such as waste collection). The public sector and specialized producers are actors who produce environmental protection services for use by other sectors;

¹⁰ This subset of bilateral ODA could be used to monitor progress towards Indicator 9, which aims to monitor the amount and number of South-South and North-South technical cooperation and capacity-building initiatives that support biodiversity.

the public sector producing non-market services and specialised producers market services. Environmental protection expenditures are classified by environmental domains according to the Classification of Environmental Protection Activities (CEPA), including:

1. Protection of ambient air and climate
2. Wastewater management
3. Waste management
4. Protection and remediation of soil, groundwater and surface water refers
5. Noise and vibration abatement
6. Protection of biodiversity and landscape
7. Other

Possible Indicators

The environmental protection expenditure data may be used for indicators 1(b) and 311 of the strategy for resource mobilisation to monitor domestic resources from both the public sector and from business to biodiversity and landscape protection¹². For indicator 1(c) on private sector financial flows, the subset on business sector expenditure could be used for this purpose, but would only capture domestic financial flows. Annual data for public sector funding is fairly comprehensive with gaps in reporting from a few countries and no reporting for others. Data from business however is much sparser, however, and many countries not reporting at all.

While the framework exists, reporting in this particular domain has been poor and would need to be improved. An aggregate indicator for both the public and business sectors could monitor financial resources from domestic budgets at all levels towards biodiversity-related activities. For private sector financial flows, the subset on business expenditures could be used for this purpose, but would only capture domestic spending. It would also be important to clearly identify which figures are being reported so as to eliminate the risk of double counting (i.e. including private sector spending with domestic budgets for Indicator 1). The possible indicators that could be extracted from this database are:

- (1) Total investment expenditures + internal current expenditures (public + business sector) i.e., for indicator 1(b) on domestic budgets at all levels and indicator 3 on amount of domestic financial support.
- 2) Total investment expenditures + internal current expenditures (business sector only) i.e., for indicator 1(c) on private sector.

¹¹ Target 3 is intended to measure the amount of domestic financial support, per annum, in respect of those domestic activities which are intended to achieve the objectives of the Convention.

¹² Data on specialized producers does not specifically identify resources to biodiversity and landscape protection, although resources from this sector are likely marginal.

Table 1. Summary of OECD datasets relevant for Target 3 and 20 and issues for consideration

Database	Data collection and current country coverage	Issues/ Considerations
EPNRM	1998-present 53 countries	• Introduce biodiversity as its own environmental domain • Introduce new categories of instruments for PES and biodiversity offsets • Collect more detailed information on the geographic scope of the instrument
PSE	1987-present 47 countries	• Bearing a number of caveats, a set of proxy indicators could be developed from the PSE database to monitor both potentially harmful and positive incentives for biodiversity in the agricultural sector
GFT	1965-present OECD countries, Argentina, Chinese Tapei, Russian Federation, Thailand	• Use subset of data to develop an indicator on proportion and amount of GFT with potentially negative impacts on biodiversity • Consider establishing labels to develop an indicator on proportion and amount of GFT with behavioral constraint
Fossil Fuels	OECD countries, Brazil, India, Russia	• Absolute figures not comparable across countries as benchmark tax treatments vary by country. Changes in this indicator may not be representative of changes in the incentive structure, since reduced tax expenditures could reflect a reduction on the benchmark tax treatment.
CRS	Rio marker data available from 1998-present ¹³ 29 DAC members, 8 non-DAC countries, 30 multilateral organizations, 1 Private donor	• To date only DAC members are applying the Rio markers to bilateral ODA • DAC members agreed in 2011 to apply Rio markers to non-export credit OOF • Multilateral organisations do not currently apply Rio markers
EPER	1990 - present OECD members, European Union members as well as candidate and EFTA countries	• Environmental protection expenditure can be used to monitor both public and business sector domestic financial flows to biodiversity • While the template exists, data is sparse and countries would need to report more systematically

The full OECD ENV Working Paper on “Biodiversity Policy Response Indicators” is forthcoming shortly (2015).

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¹³ Note: Rio marker reporting began in 1998 for DAC members and became compulsory in 2007. Non-DAC countries and other organisations do not apply the Rio markers.