

Chapter 4

Mainstreaming biodiversity in development co-operation

This chapter examines the key role development co-operation plays in supporting biodiversity conservation and sustainable use, as well as integrating biodiversity and ecosystem services into decision making in partner countries. Besides providing financial resources and expertise to biodiversity projects, development co-operation also supports the creation of enabling policy frameworks for biodiversity mainstreaming at the national and sector level. The chapter also analyses the extent to which biodiversity is being prioritised in development co-operation portfolios and operations.

Development co-operation is a key source of support for addressing environmental challenges in developing countries through financing biodiversity projects. It is equally important as an entry point for reciprocal integration of biodiversity and development, by supporting the creation of enabling frameworks at the national level, and active biodiversity mainstreaming in sectors, by improving policies and institutions and data and information systems, and mobilising finance. Development co-operation providers have acknowledged the importance of better mainstreaming. In 2010, the OECD Development Assistance Committee (DAC) adopted a Policy Statement on Integrating Biodiversity and Associated Ecosystem Services, endorsed by all members¹ of the DAC. The policy statement identifies support to partner countries and implementing the necessary changes in development co-operation agencies as two priorities for better biodiversity mainstreaming. This chapter discusses progress made in these two areas, highlighting lessons learned and challenges remaining.

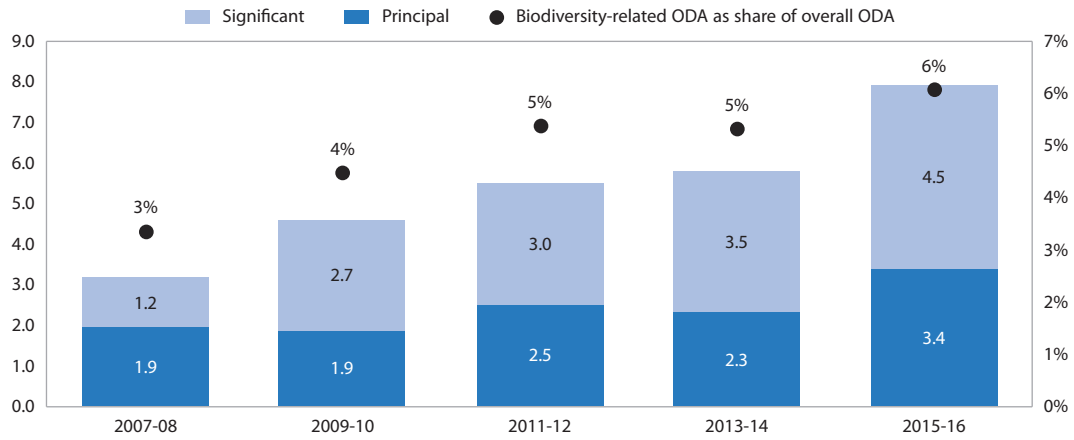
4.1. The role of development finance in funding for biodiversity in developing countries

Given a large global funding gap for biodiversity, estimated in the order of hundreds of billions of dollars per year,² development finance from bilateral and multilateral providers remains a significant, and sometimes the largest, source of funding for biodiversity programmes in many developing countries (Drutschinin and Ockenden, 2015; OECD, 2013; Waldron et al., 2013). Madagascar, for instance, has traditionally relied to a significant extent on external finance to supplement government spending on environment. Up to 70% of the budget of the Ministry of Environment has historically been supported through foreign assistance³ (Freudenberger, 2010). The government has also identified securing the support – both financial and technical assistance – from multilateral and bilateral providers as a key factor for the successful implementation of the country’s National Biodiversity Strategy and Action Plan (NBSAP) (Government of Madagascar, 2015). Similarly, Ethiopia, as one of the largest recipients of bilateral biodiversity-related official development assistance (ODA) (OECD, 2016a), has stated that further external funding would be required to close the estimated finance gap of 45%⁴ and implement the NBSAP over 2015-20 (EBI, 2015).

Globally, bilateral biodiversity-related ODA by members of the OECD DAC to ODA-eligible countries reached USD 7.9 billion (United States dollars) on average per year in 2015-16,⁵ with the past decade seeing a steady increase. Of this, USD 3.4 billion was committed to activities which targeted biodiversity as their primary objective, while the remainder represented activities where biodiversity was not the primary objective but was a co-benefit of the project (Figure 4.1). France, Japan, Germany and the United States were the top providers over a three-year period (2014-16); however, when considering the share of portfolios dedicated to biodiversity objectives, France, Norway, Iceland and Belgium dedicated the highest shares to biodiversity-related activities (Figure 4.2). In addition to bilateral sources, multilateral biodiversity-related development finance from select providers that report to the OECD DAC⁶ amounted to USD 568 million per year over 2006-14. While the reporting on biodiversity-related multilateral development finance is currently limited, the figures available indicate that this broader finance may be significant.

Much of this support was invested in projects for biodiversity conservation and sustainable use and related to natural resource management. As shown in Figure 4.4, bilateral biodiversity-related ODA is concentrated in five sectors that account for 73% of this finance: environmental protection, water supply and sanitation, agriculture and fisheries, forestry, and multisector projects. In recent years, among the large bilateral biodiversity projects are, for instance, a concessional loan provided by Japan International Cooperation Agency (JICA) to India to address the severe pollution of the River Yamuna and a concessional loan committed by the Agence Française de Développement (AFD) to support Turkey’s forestry policy.

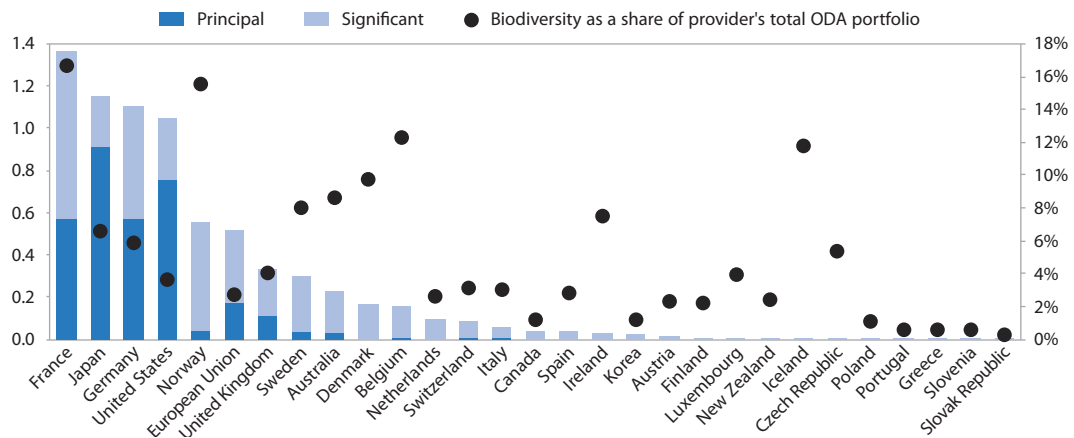
Figure 4.1. Bilateral biodiversity-related ODA, 2007-16
Two-year averages in USD billion (constant 2015 prices) and shares of total bilateral ODA



Note: The data in this figure represent commitments.

Source: Authors, based on data retrieved from OECD (2018c), *DAC Creditor Reporting System* (database), stats.oecd.org (accessed 12 February 2018).

Figure 4.2. Providers of bilateral biodiversity-related ODA
USD billion (constant 2015 prices) and shares of total bilateral ODA, three-year average, 2014-16



Note: The data in this figure represent commitments.

Source: Authors, based on the data retrieved from OECD (2018c), *DAC Creditor Reporting System* (database), stats.oecd.org (accessed 12 February 2018). The figures in this graph represent commitments.

4.2. Development co-operation support for mainstreaming in developing countries

Besides directly financing biodiversity projects in developing countries, development co-operation supports mainstreaming in partner countries by strengthening frameworks for mainstreaming at the national level as well as directly supporting the mainstreaming of biodiversity into specific sector policies, plans and projects. Both of these include efforts to a) improve policies and institutions; b) improve data and information systems; and c) mobilise financing for biodiversity conservation and sustainable use.

Improving institutions and policy frameworks for biodiversity mainstreaming

Development co-operation agencies support developing countries to create and strengthen their institutions and capacity for the achievement of national and subnational biodiversity priorities. Belgian Development Co-operation, for instance, has developed a programme – Capacities for Biodiversity and Sustainable Development (CEBioS) which focuses on building partner country capacity specifically in biodiversity conservation and sustainable use (RBINS, 2013). GIZ's The ProAmbiente programme set up by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in Peru has supported the government's efforts to create a legal and institutional landscape for mainstreaming since the establishment of the Ministry of Environment in 2008 (GIZ, 2017). ProAmbiente has assisted the ministry in developing central environmental policies, such as the National Environmental Action Plan 2010-2021, which placed biodiversity among the seven key environmental priority areas for the forthcoming decade (MINAM, 2010).

There are also development co-operation programmes that actively support partner countries in mainstreaming biodiversity in different sectors. For example, in Ethiopia, a programme supported by the Global Environment Facility (GEF) has been developing a policy and institutional framework to integrate agro-biodiversity in the agriculture sector and improve market access for biodiversity-friendly agricultural products (UNDP, 2013). Another example is an Asian Development Bank project that has supported the Ministry of Natural Resources and Environment of Viet Nam to strengthen biodiversity considerations within the national safeguards system, and the environmental impact assessment (EIA) regulations in particular. The technical assistance programme developed biodiversity impact assessment guidelines to enable EIA practitioners to specifically take into account biodiversity impacts and mitigation measures when evaluating infrastructure projects (ADB, 2015).

Development co-operation also contributes to promoting policy coherence between biodiversity, and national and sector development plans and strategies. A number of providers – Denmark, France, Germany, Norway, Sweden, the United Kingdom and the United States – have expressed their commitment to supporting Ethiopia in implementing its Climate Resilient Green Economy (CRGE) strategy (US Department of State, 2015). The CRGE is a cross-sector plan that envisages Ethiopia achieving middle-income economy status by 2025 through a climate-resilient low-emission development path, by prioritising the sustainable development of the forestry, agriculture, energy, and transport and infrastructure sectors (FDRE, 2011). Another example of the effort to reconcile economic development with biodiversity conservation is the Conservation, Impact Mitigation and Biodiversity Offsets in Africa (COMBO) project, funded by the AFD, the French Global Environment Facility and the Mava Foundation. Piloted in Madagascar in 2016, COMBO aims to build countries' capacity to improve the application of the mitigation hierarchy and reduce the impacts of development projects on biodiversity (COMBO, 2017).

Strengthening data and information, and monitoring and evaluation systems

Providing access to international expertise and technology for developing data collection and management systems is important for creating a robust evidence base on biodiversity and informing policy making. A number of initiatives that have become important enablers of mainstreaming have been implemented through continued development co-operation support. These include the World Bank's Wealth Accounting and the Valuation of Ecosystem Services (WAVES) programme, which supports partner countries in developing natural capital accounts (Section 2.5), and the United Nations Development Programme

(UNDP) Biodiversity Finance Initiative (BIOFIN), which assists countries with conducting biodiversity expenditure reviews and finance needs assessments (Section 2.6).

Among the bilateral efforts is, for instance, the National Biodiversity Database System (NBDS) in Viet Nam jointly developed by JICA and by the Biodiversity Conservation Agency, the Vietnam Environment Administration and the Ministry of Natural Resources and Environment. The NBDS is designed in accordance with the international standards to store nationwide biodiversity data, and aims to facilitate effective biodiversity monitoring and management, and inform decision and policy makers, researchers, and the public (JICA, 2015a). JICA has also signed an agreement with the Japan Aerospace Exploration Agency (JAXA) to provide partner countries that face a deforestation challenge with advanced technology to monitor changes in forest cover. As part of this partnership, an Initiative for Improvement of Forest Governance was launched to create a tropical forest monitoring system that tracks deforestation and forest loss with the Advanced Land Observing Satellite-2 (ALOS-2). The ALOS-2 satellite has a system aboard which allows the monitoring of illegal logging and other changes in tropical forests even through the cloud cover that often impedes surveillance in the tropical areas (JICA, 2015b).

Partner countries also often require support to develop monitoring and evaluation (M&E) methodology to assess biodiversity mainstreaming itself, and identify the lessons learned to guide the process in the future. The joint International Institute for Environment and Development (IIED) and United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) two-phase project, funded by the Darwin Initiative and the German Ministry of Economic Co-operation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung) (BMZ), focuses on supporting eight sub-Saharan African countries in their reciprocal biodiversity mainstreaming (IIED, 2018). As one of its elements, the project looks at developing the mechanisms for M&E of mainstreaming (IIED and UNEP-WCMC, 2015).

Mobilising private and public finance to bridge biodiversity funding gap

Besides directly financing biodiversity projects, development finance can also be used strategically to mobilise additional finance from the private sector, by providing de-risking instruments for private investors through “blended finance” mechanisms (OECD, 2018a; UNDP, 2016). Currently, there is a lack of data on the scale of finance mobilised for biodiversity from the private sector. However, efforts are under way to improve tracking of mobilised resources for sustainable development, including effective management of natural capital (Box 4.1). Between 2012 and 2015, USD 81.1 billion in private finance was mobilised by official development finance interventions⁷ from the private sector, and 26% or USD 21.3 billion was climate-related, with the majority targeting climate change mitigation (Benn, Sangaré and Hos, 2017).

A number of bilateral development co-operation institutions target the mobilisation of private capital for development goals and these are increasingly active in the environment sphere, including biodiversity. One example of a donor-supported initiative to mobilise private investment for biodiversity is the Moringa Fund, managed by ONF International (ONFI)⁸ with support, among others, from the French Promotion and Participation Company for Economic Co-operation (Proparco), the Netherlands Development Finance Company (FMO) and the Finnish Fund for Industrial Cooperation (Finnfund). The USD 84 million fund targets profitable large-scale agroforestry projects in Latin America and sub-Saharan Africa that are able to demonstrate significant environmental and social benefits.⁹ The International Finance Corporation’s (IFC) forest bond is another example

where investors can be repaid through carbon credits linked to a REDD+ project, and which has raised USD 152 million in support of halting deforestation (Box 4.4).

Despite these cases, in general, efforts to mobilise the private sector have somewhat bypassed biodiversity-related projects. For example, an analysis of blended finance funds and facilities and the extent to which they target different Sustainable Development Goals (SDGs) found that Goals 14 (Life on Land) and 15 (Life below Water) were among the least targeted (OECD, 2018a). This is due to development partners and governments facing a number of challenges, primarily related to the lack of bankable biodiversity projects in the pipeline that can deliver both environmental outcomes and commercial returns (Crishna Morgado and Lasfargues, 2017). Private investment may be further hindered by an unclear business case for investing in and protecting natural capital. There is thus a need for development co-operation to continue to support partner countries in creating an enabling environment and value chains to attract private investment for biodiversity.

Development co-operation providers also contribute to strengthening individual and organisational capacity, and enabling conditions to build a stronger business case for biodiversity prioritisation within domestic budgets (Drutschinin and Ockenden, 2015). One example is the Policy Guidelines for Public Investment in Biodiversity and Ecosystem Services, developed by the Peruvian Ministry of Environment and the Ministry of Economy and Finance, with the support from UNDP BIOFIN and German development co-operation through GIZ (MINAM, 2015). The guidelines aim to facilitate public investment in biodiversity conservation and sustainable use by formulating biodiversity-specific requirements that need to be taken into account by public agencies when applying for funding¹⁰ (BIOFIN, 2015).

Box 4.1. Total official support for sustainable development: An emerging measure to track broader financial resources for sustainable development

In addition to tracking biodiversity-related development finance, there is a need in light of the focus of the Addis Ababa Action Agenda on mobilisation to capture resources mobilised from other sources that also contribute to sustainable development outcomes. This includes private-sector investment through blended finance or various other pooling and risk mitigation mechanisms.

To this end, as part of wider DAC modernisation, work is currently under way in consultation with the international community to develop a new international statistical measure of the total official support for sustainable development (TOSSD). TOSSD aims to track all official financing regardless of the instrument or level of concessionality. It seeks to complement the ODA measure by improving transparency, and supporting innovative incentives for using public finance to mobilise additional resources, targeting the SDGs under the 2030 Agenda for Sustainable Development, including the SDG targets related to biodiversity.

Source: OECD (2016c), “TOSSD compendium for public consultation”, www.oecd.org/dac/financing-sustainable-development/TOSSD%20Compendium2016.pdf.

Development partners can also assist with the implementation of the economic instruments under environmental fiscal reforms, such as taxes and charges on natural resources (Drutschinin and Ockenden, 2015; OECD, 2012). For example, in Viet Nam, GIZ’s Macroeconomic Reforms/Green Growth Programme has supported the Ministry of Finance

in implementing fiscal reforms through expert knowledge transfer, including on the design of the environmental tax law in accordance with international standards (OECD, 2018b). In 2010, Viet Nam passed a law on an environmental protection tax, which came into effect in 2012. The government now levies a tax on environmentally harmful substances, such as fossil fuels (coal and gasoline), selected pesticides, herbicides, hydrochlorofluorocarbons (HCFCs) and plastic bags (OECD, 2018b; Johannes and Olearius, 2011).

Despite progress, limited financial and human resources in partner countries hinder the effectiveness of biodiversity support

While significant progress has been made in providing support to partner countries to protect and mainstream biodiversity, several issues remain. A limited focus on biodiversity in relation to other development priorities in the policy agendas of partner countries can be a significant undermining factor for the success of biodiversity projects. The inadequate domestic resource allocation to biodiversity may prevent the existing development activities from being continued or scaled up, beyond the lifetime and scope of externally funded interventions (European Commission, 2015).

Persisting limitations in individual and organisational technical capacity also have the potential to hinder the continuity of positive change initiated by development co-operation programmes. For instance, a thematic evaluation of European Union (EU) environment and climate change programmes concludes that the success of interventions to build local capacity and improve the availability and access to biodiversity data might be undermined by constraints on maintaining and further developing the databases in the future (European Commission, 2015).

Furthermore, complex implementation arrangements and activity cycles of development co-operation when coupled with capacity limitations in partner country governments may also raise the transaction costs and increase the difficulty in accessing biodiversity finance already available (ADB, 2007; UNDP, 2010). For instance, there has been a reduction in environment-related ODA to Uganda, given the government's lack of time and technical skills to meet funding requirements and development proposals (Thomas, 2014). This suggests a need to streamline and simplify administrative procedures in place to better manage development finance allocation (Drutschinin et al., 2015).

4.3. Mainstreaming biodiversity within development co-operation

Providing sufficient support to partner countries in their biodiversity mainstreaming efforts requires that biodiversity is adequately prioritised within development co-operation own policies and operations. There is an indication that the development community is increasingly recognising the co-benefits of biodiversity for a broader development agenda (Drutschinin et al., 2015). A comprehensive analysis of biodiversity mainstreaming in the international development agenda concludes that 12 DAC members¹¹ give significant attention to biodiversity in their programming, although climate change remains a more prominent focus (Roe, 2010).

Biodiversity in development co-operation policies and strategies

A number of development partners either have introduced dedicated biodiversity policies and strategies, or have included biodiversity-related considerations within broader development co-operation strategies, to guide the integration of biodiversity objectives

within their environmental programming and broader development activities (Table 4.1). For instance, the United States Agency for International Development (USAID) has formulated a comprehensive package for mainstreaming biodiversity throughout its development projects. This includes *USAID Biodiversity Policy* (USAID, 2014), complemented by a comprehensive *Biodiversity and Development Handbook*, which is considered a foundational component of policy implementation (USAID, 2015a). The handbook provides practitioners with a step-by-step guide on integrating biodiversity projects in different sectors, outlining the main programming and policy linkages. Further, USAID has developed the Biodiversity and Development Research Agenda, with an aim to build the evidence base for synergies between biodiversity conservation and development objectives, e.g. economic growth, food security, health, governance and gender equality (USAID, 2015b).

Table 4.1. Examples of biodiversity-specific policies and strategies by DAC members

Provider	Strategy
Belgium	“Building capacities for biodiversity for sustainable development and poverty reduction: Strategy 2014-2023”, as its title suggests, focuses on developing capacities for managing biodiversity and ecosystem services that it considers a means to achieving the goal of sustainable development.
European Union	The EU Biodiversity for Life flagship initiative (B4Life) is considered a flagship initiative as it marks a new direction in EU development co-operation that focuses on strengthening the linkages between biodiversity conservation and poverty eradication.
France	“Nature and development: Convergent objectives – Action plan 2013-2016” places mainstreaming ecosystem conservation in all sector development policies in partner countries among its top three priorities. The plan also restates a commitment to ensuring no net biodiversity loss in critical habitats from any AFD projects. AFD’s commitment to biodiversity is also illustrated by <i>Biodiversity: Cross-Sectoral Intervention Framework 2013-2016</i> .
Germany	The German Development Co-operation has had a biodiversity strategy in place since 2008 which includes guidance on cross-sectoral mainstreaming of biodiversity. Over the past years, progress updates and further guides, such as <i>Committed to Biodiversity</i> and <i>Biodiversity in German Development Cooperation</i> , have been developed to present the lessons learned from supporting partner countries in biodiversity conservation and mainstreaming.
United States	The <i>USAID Biodiversity Policy</i> , which has been developed through a highly consultative process with government entities, civil society, academia and the private sector, aims to enhance the USAID understanding of the importance of biodiversity for development. It reiterates USAID commitment to conservation, and introduces the new focus on mainstreaming biodiversity within sector programming. The policy is complemented by the <i>Biodiversity and Development Handbook</i> to facilitate its implementation.

Sources: AFD (2013); AFD (2014a); BMU and BMZ (2014); BMZ (2010); BMZ (2008); EU (2014); RBINS (2013); USAID (2015a); USAID (2013),

Some development co-operation providers choose to prioritise biodiversity as a pillar within a holistic environmental thematic area, as the development of stand-alone biodiversity strategies is not a guarantee for increased mainstreaming and may, on the contrary, sometimes be viewed as contributing to silo thinking. For instance, sustainable management of biodiversity is one of the four priorities in the environmental action plan of the Norwegian Agency for Development Cooperation (Norad) (Norad, 2006). Similarly, in its *Policy Framework for Swedish Development Co-operation and Humanitarian Assistance*, the Swedish government has identified sustainable management of ecosystems as its priority under the thematic direction “environmentally and climate-related sustainable development and sustainable use of natural resources” (Government of Sweden, 2016). Furthermore, the Swedish International Development Co-operation Agency (Sida) adopted

in 2017 an environmental policy where the sustainable use of natural resources, including biodiversity and ecosystems for “increased resilience, poverty alleviation and development”, has a central consideration (Sida, 2017).

Equally important is to integrate biodiversity considerations within development co-operation sector strategies, beyond the thematic axis of environment, to ensure that development activities in different sectors fully harness synergies with biodiversity. AFD, for instance, made efforts to integrate environmental priorities into agriculture-related development activities through its work on agroecology over the last 15 years (Levard et al., 2014). In its action plan for the agriculture sector, AFD emphasises the importance of linking the sustainable development of the sector with the provision of global public goods, such as biodiversity, climate, water and health (AFD, 2015).

Although the majority of development partners tend to recognise the importance of biodiversity and have integrated relevant considerations within their programming, in one form or another, some policies and strategies guiding their development activities at present are substantially out of date. As the evidence base of the co-benefits between biodiversity and development, and the understanding of how to best capture them, continues to improve, development co-operation policies and strategies need to reflect this change to remain aligned with the evolving thinking.

Furthermore, the lessons on mainstreaming learned from DAC peer reviews point to a weak link between the strategic policy and implementation level, and insufficient organisational change to effectuate mainstreaming in practice (OECD, 2014a).

Safeguard systems for zero net biodiversity loss

An effective mainstreaming process requires a thorough assessment and mitigation of risks to ensure that at a minimum, development activities do not exacerbate biodiversity threats. The majority of bilateral and multilateral providers have environmental safeguard systems in place which in one way or another aim to screen development activities for their impacts on biodiversity and the environment in general (DFAT, 2014). Such safeguard systems usually comprise various stages: initial screening, environmental assessment, risk mitigation and eventually, monitoring the adequacy of the measures during the project implementation.

During the initial activity screening phase, agencies map all potential linkages of a project to biodiversity. For instance, AFD has developed a Sustainable Development Opinion mechanism that pursues cross-sectoral integration of sustainable development concerns, including biodiversity conservation, in all its operations. The system incorporates an activity-rating grid, coupled with a second opinion formulated independently from the AFD Operations Division (AFD, 2014b) (Box 4.2).

Should the screening find a significant negative impact of an activity on biodiversity, assessments, e.g. the strategic environmental assessment (SEA) and Environmental Impact Assessment (EIA) are conducted. DAC members with environmental assessment instruments in place include Australia, the European Commission, Germany, Japan, Sweden, and the United States (European Commission, 2016; GIZ, 2015; JICA, 2010; Sida, 2004; USAID, 2013). Most multilateral development banks (MDB) have also introduced environmental safeguard policies featuring biodiversity-specific requirements (Table 4.2).

Further, options are considered to avoid or mitigate the harm (Drutschinin et al., 2015). In Australia, for example, environmental assessments are accompanied by an environmental management plan (EMP) developed for all aid activities classified as medium or high risk

(DFAT, 2014). Besides managing environmental risks, an EMP is required to provide for monitoring and reporting on these risks throughout project implementation, and adjusting the measures to new risks. Where significant impacts cannot be avoided or mitigated, an activity is referred to the Australian Minister for the Environment (DFAT, 2016).

Table 4.2. **Biodiversity and environmental safeguards in multilateral development banks**

Multilateral development bank	Environmental safeguard policy	Biodiversity-specific component
Asian Development Bank	Safeguard Policy Statement (2009)	Safeguard requirement 1: Environment Requirement 1.8: Biodiversity conservation and sustainable natural resource management
African Development Bank	Integrated Safeguards System (2013)	Operational safeguard 3: Biodiversity, renewable resources and ecosystem services
European Bank for Reconstruction and Development	Environmental and Social Policy (2014)	Performance requirement 6: Biodiversity conservation and sustainable
European Investment Bank	Statement of Environmental and Social Principles and Standards (2009) Environmental and Social Handbook (2013)	Environmental and social standard 3: Biodiversity and ecosystems
Inter-American Development Bank	Environment and Safeguards Compliance Policy (2006) Implementation Guidelines for the Environment and Safeguards Compliance Policy (2007)	
IFC	Performance Standards on Environmental and Social Sustainability (2012)	Performance standard 6: Biodiversity conservation and sustainable management of living natural resources
World Bank	Environmental and Social Framework (2016)	Environmental and social standard 6: Biodiversity conservation and sustainable management of living natural resources

However, the mere existence of safeguard systems does not guarantee that screening for negative environmental impacts is performed effectively and in a timely manner prior to the clearance stage (Laurans and Haddad, 2015). For the co-benefits to be realised and potential negative impacts to be mitigated, it is important that biodiversity-specific considerations and objectives are formulated and explicitly integrated at the design stage of programmes and projects, alongside other development objectives (SDC, 2009). The successful implementation of biodiversity strategies and application of screening methodologies to individual programmes and projects is also contingent on the staff capacity.

Reciprocal risk assessment and management systems

To bridge the gap between policy and implementation, besides traditional safeguard systems, there is a need for holistic reciprocal risk assessment approaches which would not only explore the biodiversity threats from development activities but take into account also the risks that the loss of biodiversity creates for the sustainability of development projects. The Swiss Agency for Development and Cooperation (SDC), for instance, has developed the Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG), which supports its staff and project partners in assessing whether an existing or planned development activity – strategy, programme and project – is at risk from environmental degradation and climate variability, and whether the activity itself poses a risk to environment (SDC, 2012). Besides initial screening CEDRIG incorporates risk and impact assessment stages, representing a comprehensive environmental assessment tool (Box 4.2).

Box 4.2. Risk assessment approaches to support biodiversity mainstreaming

AFD “sustainable development opinion” mechanism

The sustainable development opinion mechanism is a system by which the AFD explores the relevance of its operations for addressing cross-cutting challenges of sustainable development. Biodiversity conservation and natural resource management is one of the six dimensions of sustainability (Dimension 4), as defined by AFD, with the other five including economic development; social well-being and reduction in social imbalances; gender equality; climate change; and project sustainability (e.g. additionality, governance and capacity, contribution to country priorities).

The approach adopted for Dimension 4 on biodiversity conservation is consistent with the AFD 2013-2016 Biodiversity Strategy and the OECD DAC Rio marker methodology for tracking development finance in support of the Rio Conventions. The mechanism includes three steps:

- a. The project’s impacts (both positive and negative) on each of the six sustainable development dimensions are analysed and described in the main project description document.
- b. The project team provides a rating for the project based on these impacts.
- c. An independent second opinion is formulated by a unit separate from AFD’s Operations Division, and submitted to the agency’s Credit Committee.

An important characteristic of the sustainable development opinion mechanism is that the rating grid which assesses projects against the sustainable development dimensions allows the identification of both positive and negative impacts of a project. For example, project ratings for linkages to biodiversity conservation are as follows:

- highest positive score (3): project’s principal objective is biodiversity conservation
- positive score (2): one of the project’s main objectives is to manage biodiversity sustainably
- positive score (1): The project’s objective is to reduce negative impacts of development on biodiversity and natural resources
- score 0: no discernible impact
- negative score (-1 or -2): project poses a risk to biodiversity (i.e. net loss of biodiversity) or to ecosystems as a whole.

SDC’s Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG)

CEDRIG is a rigorous tool developed by SDC for its staff and partners to assess a project from both a risk perspective (environmental risks that may affect project implementation) and an impact perspective (the potential impacts of a project on the environment, including loss of biodiversity, deforestation, and soil and water pollution).

CEDRIG comprises three consecutive modules, for each of which a detailed guide is available to guide practitioners:

- Module 1: “CEDRIG Light” or rapid risk and impact screening serves as an initial filter to assess climate change- and environment-related risks and impacts of an activity – strategy, programme or project. The result informs whether a more thorough and detailed assessment is needed.
- Module 2: “CEDRIG Strategic” helps conduct a detailed assessment at a strategic or programme level, and integrate climate change, environment and disaster risk into the strategy or programme, addressing both the risk and impact perspectives.
- Module 3: “CEDRIG Operational” allows conducting detailed risk and impact assessments at a project level. The impact assessment includes identifying and selecting mitigation options, and defining impact, outcome and output indicators for the measures to be implemented.

Sources: AFD (2014b), *Methodology guide to the “sustainable development opinion” mechanism*; SDC (2012), *CEDRIG Climate, Environment and Disaster Risk Reduction Integration Guidance*.

Sida has also adopted a comprehensive contribution management system (CMS) that supports mainstreaming of key cross-cutting themes, such as environment and climate change and gender equality, across all the agency's development co-operation activities (OECD, 2014b). An important feature of the system is the Helpdesk for Environment and Climate Change, which provides advice and guidance to support Sida's staff in integrating environmental considerations at policy, programme and project levels (Sida, n.d.). A recent evaluation of the CMS concluded that the adoption of the tool has led to a better-structured assessment process, though the risk assessment process could benefit from simplification (Danielsson, Dahlgren and Lindström, 2016).

The importance of providing adequate support and training to staff, particularly those working on the ground in the offices in partner countries, has been recognised also by other donors. For instance, in addition to the biodiversity policy and handbook discussed above, USAID has released three Biodiversity How-To Guides which provide detailed guidance to practitioners on the design and management of biodiversity programmes in accordance with the broader policy (USAID, 2016).

Prioritisation of biodiversity in development finance portfolios as an indicator for mainstreaming

The degree to which biodiversity is prioritised within ODA portfolios can also serve as a useful indication of the implementation in practice of development co-operation strategies and screening tools, discussed above, to harness the synergies between biodiversity and other development activities, including active support to mainstreaming biodiversity in sectors.

The OECD DAC Rio marker methodology used by bilateral providers to report on their biodiversity-related development finance allows distinguishing between projects that target biodiversity as their primary objective, and those that have biodiversity as their secondary objective (Box 4.3). The number of projects where biodiversity is mainstreamed has more than doubled over the past decade, contributing to over half of overall biodiversity-related ODA activities (Figure 4.3). In monetary terms, USD 4.5 billion of bilateral ODA in 2015-16 targeted biodiversity as a secondary objective,¹² compared with USD 1.2 billion in 2007-08 (Figure 4.1).

When seeking to scale up biodiversity finance by harnessing synergies with other development activities, it is also useful to explore the opportunities for reciprocal mainstreaming, i.e. the mainstreaming of other environmental and developmental objectives into biodiversity activities. The share of biodiversity-related ODA (targeting biodiversity both as primary and secondary objective) in total bilateral ODA remained limited to 6% in both 2014-15 and 2015-16 (Figure 4.1) (OECD, 2016a). By comparison, climate-related ODA accounts for 17.5%, or USD 25.9 billion per year, which is over threefold the amount committed to biodiversity in the same time period (OECD, 2016b; 2017). Given the relatively large size of climate ODA portfolios, and the close inter-linkages between biodiversity and climate change projects, an emerging approach among bilateral providers is to support biodiversity by capturing synergies with climate projects. In 2014-15, nearly 80% or USD 6.8 billion of bilateral biodiversity-related ODA simultaneously pursued climate change objectives, which is an increase from 38% in 2006-07.

However, this overlap represents less than a quarter of the climate ODA portfolio, signalling that more efforts could be made to promote co-benefits between climate and biodiversity projects. Moreover, as the experience of REDD+ shows, realisation of the co-benefits for biodiversity climate projects is not always self-evident (Box 4.4). Therefore,

stronger deliberate efforts are required to ensure the alignment of biodiversity objectives with other climate change and development priorities. Improving the understanding of the substantial co-benefits that biodiversity-focused projects can deliver for other environment and development activities would help to build a case for funding these biodiversity projects in the first place.

Box 4.3. Capturing the mainstreaming component in ODA through the OECD DAC Rio marker methodology

For nearly two decades, the OECD DAC has been tracking development finance targeting the objectives of the Rio Conventions through its project-level CRS, using a Rio marker methodology. Rio markers aim to capture the mainstreaming component of biodiversity and other environmental objectives across development co-operation. Every development co-operation activity reported to the OECD DAC CRS should be screened and marked, whether it is targeting the objectives of the Convention on Biological Diversity (CBD), using the score “principal”, “significant” or “not targeted”. Activities scored “principal” would not have been funded but for their biodiversity objective. Activities scored “significant” have a primary objective other than biodiversity but have been formulated or adjusted to help meet biodiversity concerns. Biodiversity is essentially mainstreamed into these activities, being targeted as a secondary objective.

Over the five years between 2012 and 2016, sectors and sub-sectors attracting the highest number of these activities related to biodiversity mainstreaming were:

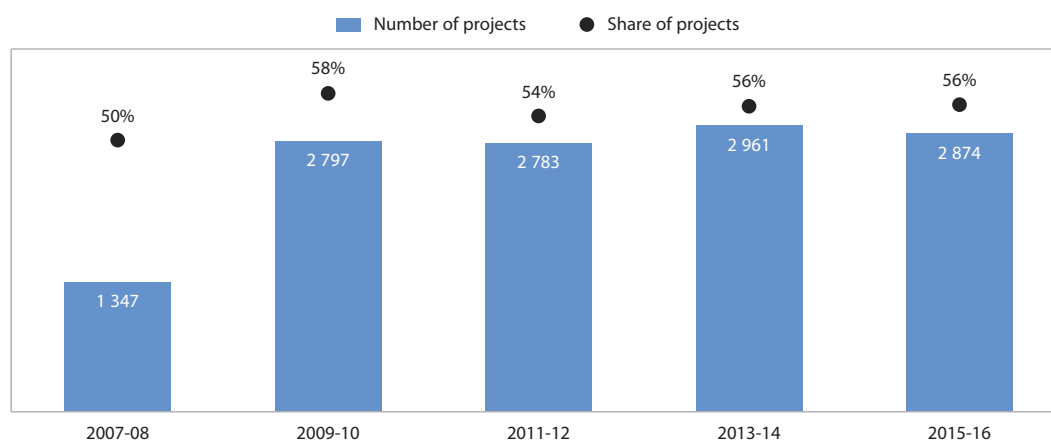
- agriculture – activities related to agricultural development, agricultural policy and administration management, research, and land resources
- general environment protection – activities related to environmental policy and administration management, environmental research, biosphere protection, and education and training
- government and civil society – activities related to democratic participation and civil society, public-sector policy and administrative management, human rights
- water supply and sanitation – activities related to water resource policy and administrative management, drinking water supply and basic sanitation, water resource protection
- other multisector – activities related to multisector aid, rural development.

The quality of the data on biodiversity-related development finance reported by the DAC members to the OECD CRS depends on the consistency and rigour of applying the Rio marker methodology. Therefore, efforts are under way to improve the understanding and clarity of the use of the Rio marker methodology, particularly in relation to the activities that score “significant” that target biodiversity as a secondary objective. The OECD DAC Secretariat in consultation with the DAC members is in the process of developing supportive material to guide the application of the Rio marker for biodiversity, following the recent successful exercise to clarify the use of the Rio markers for climate change adaptation and mitigation by updating the “OECD DAC Rio Markers for Climate: Handbook” (OECD, n.d.).

Note: For more information, access OECD CRS data and methodology at <http://oe.cd/RioMarkers>.

Source: OECD (n.d.), *OECD DAC Rio Markers for Climate: Handbook*, https://www.oecd.org/dac/environment-development/Revised%20climate%20marker%20handbook_FINAL.pdf.

Figure 4.3. **Bilateral official development assistance activities with biodiversity as a secondary objective 2006-15, two-year averages**

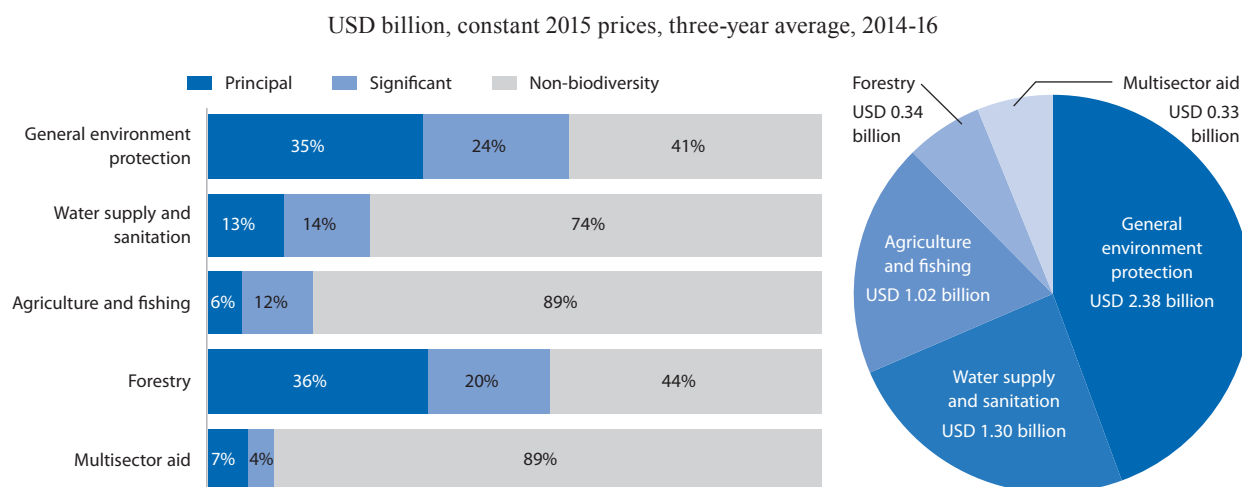


Note: The data in this figure represent commitments.

Source: Authors, based on data retrieved from OECD (2018c), *DAC Creditor Reporting System* (database), stats.oecd.org (accessed 12 February 2018).

More needs to be done to also ensure that development activities in high-impact sectors sufficiently exploit biodiversity co-benefits. The level of mainstreaming across the top sectors attracting biodiversity finance varies substantially (Figure 4.4). For instance, of the total bilateral ODA to the forestry sector per year, ODA in support of biodiversity accounted for 56% on average in 2014-16, whereas for the agriculture and fisheries sector, the share is 18%. Some other sectors with a potentially high impact on biodiversity receive even smaller shares of bilateral biodiversity-related ODA, such as transport (1%) and energy infrastructure (2%), mining (2.8%), and tourism (9%). More analysis on what approaches can be used to promote biodiversity considerations into development co-operation efforts in these sectors would be useful to support greater mainstreaming.

Figure 4.4. **Top five sectors receiving bilateral biodiversity-related ODA: Total commitments and biodiversity as share of overall ODA to sector**



Note: The data in this figure represent commitments.

Source: Authors, based on data retrieved from OECD (2018c), *DAC Creditor Reporting System* (database), stats.oecd.org (accessed 12 February 2018).

Box 4.4. **Harnessing synergies between biodiversity and climate change mitigation in REDD+ projects**

Climate change mitigation programmes that aim to reduce deforestation and forest degradation, such as REDD+, have a significant potential to generate co-benefits for biodiversity, given that the loss of tropical forests is also one of the main drivers of biodiversity loss. When integrated in REDD+ programmes, biodiversity conservation projects could benefit from a larger finance pool and a robust results-based REDD+ monitoring and verification system. In part to strengthen these links, the original focus of the mechanism on reducing emissions from deforestation and forest degradation, REDD, has expanded since the Bali Action Plan in 2007 to include conservation and sustainable management of forests and enhancement of forest carbon sinks (i.e. REDD+).

However, the realisation of these synergies in practice is not always self-evident (Belna, 2015). The REDD+ net accounting system for monitoring reductions in carbon emissions may promote afforestation along with the efforts to reduce the loss of natural forests. Similar levels of carbon reduction may be achieved from both conserving primary forests and planting new forests, which are not necessarily as biodiversity-rich. It is also argued that while not benefiting biodiversity, REDD+ programmes may create additional damage through a leakage effect if biodiversity considerations are not explicitly addressed. Since high-carbon areas do not always coincide with high-biodiversity zones, there is a risk of displacement of land-use pressures that drive deforestation and forest degradation from REDD+ forests to the areas of high biodiversity but low carbon. REDD+ programmes may also divert funds for conservation away from high-biodiversity, low-carbon areas. Better alignment of spatial prioritisation of biodiversity-rich zones with climate change mitigation objectives in REDD+ projects is thus a key factor in a successful delivery of biodiversity co-benefits.

To address biodiversity and other environment-related concerns, parties to the United Nations Framework Convention on Climate Change (UNFCCC) adopted a number of environmental and social safeguards to be applied to REDD+ programmes (the Cancun Agreement [2010], the Durban Outcome [2011], and the Warsaw REDD+ framework [2013]). These UNFCCC guidelines tend to focus on avoiding negative impacts rather than promoting benefits for biodiversity. They also remain general, with little elaboration of concrete conservation actions to be taken and monitoring methods required. Given the multidimensionality of biodiversity, measuring changes in biodiversity can be more complex than monitoring carbon emissions. There is thus a need for comprehensive guidance on linking reduction in carbon emissions to biodiversity conservation. Civil society initiatives, such as the Climate, Community and Biodiversity (CCB) Standards and REDD+ Social and Environmental Standards, developed under the Climate, Community and Biodiversity Alliance, may be able to fill this void. They tend to provide rigorous and concrete methods on the delivery of biodiversity co-benefits within climate change mitigation programmes.

There are a number of verified projects that have achieved biodiversity co-benefits in REDD+ initiatives – for instance, the Makira Forest Protected Area Project in Madagascar and the Natural High Forest Rehabilitation Project on Degraded Land of Kibale National Park in Uganda. However, in a recent review of 80 REDD+ projects that are using CCB Standards, Panfil and Harvey (2016) find that in practice, REDD+ will have variable outcomes on biodiversity, depending on how biodiversity goals are articulated, implemented and monitored. A key recommendation is to include more specific monitoring of biodiversity in REDD+ projects.

Sources: Busch and Grantham (2013); CCBA (2017); Harrison and Paoli (2012); Karousakis (2009); Lanius et al. (2013); Murray et al. (2014); OECD (2013); Panfil and Harvey (2014; 2016); Phelps, Friess and Webb (2012); REDD Standards (2012); Strassburg et al. (2010).

Challenges to effective development co-operation on mainstreaming

Besides the volume of development finance provided for biodiversity, the development community places an emphasis on the effectiveness of development co-operation in addressing the national priorities of partner countries and achieving the intended results (CBD, 2014). For development co-operation to be successful in driving biodiversity mainstreaming, interventions need to be designed and implemented in line with the international principles on aid effectiveness (Paris Declaration on Aid Effectiveness 2005, Accra Agenda for Action 2008, Busan Declaration 2011). These principles are common for all development co-operation activities, including those focusing on biodiversity mainstreaming, and are reflected in the “DAC policy statement on biodiversity” (OECD, 2010). They comprise:

- ownership of development priorities by partner countries, with interventions being demand-driven and in line with country priorities
- a focus on results with investments oriented at delivering long-term lasting impacts, e.g. reducing biodiversity loss and poverty
- inclusive partnerships characterised by mutual trust and learning, and recognising the different and complementary roles of all actors
- transparency and accountability to all citizens and stakeholders.

The progress towards the implementation of these principles is being monitored by the Global Partnership for Effective Development Co-operation, supported by a joint OECD-UNDP team. The results of the second round of monitoring completed in 2016 were presented at the Second High-Level Meeting of the Global Partnership in Nairobi (OECD/UNDP, 2016). An outcome document concluded at the meeting makes an explicit link between protecting biodiversity and climate stability as global public goods, and reducing international instability and risks. It highlights the importance of continued development co-operation support to middle-income countries that have a key role in the provision of these public goods (Nairobi Outcome Document, 2016).

However, in practice, several challenges exist that may undermine the effectiveness of development co-operation for biodiversity. First, there is a need to enhance co-ordination between development partners, to increase the cumulative effectiveness of their individual interventions on the ground, by ensuring complementarity and mutual accountability and avoiding duplication (Danilova and Pillai, 2010). Co-ordination can be achieved through country-level round tables and working groups, as well as by pooled funding arrangements around a common framework or programme. One successful example of such collaboration is the Forest Sector Support Partnership in Viet Nam, which was established to co-ordinate international funding in support of forest programmes, including REDD+, under the Forestry Development Strategy (Government of Viet Nam, 2007). For several years, the programme was able to mobilise and target donor support for protected area management and sustainable forestry. Another example is a consultation circle of technical and financial partners on environment¹³ that was created in Madagascar, in response to the upsurge in illegal logging activity as a result of the 2009 political crisis. The group established three commissions to monitor ongoing developments concerning environmental governance, climate change and protected area management (Freudenberger, 2010). At the global level, the work of international fora such as the OECD DAC Network on Environment and Development (ENVIRONET) may be an additional useful tool to share knowledge and experiences (Council of the European Union, 2009).

Second, while harnessing the potential complementarities between biodiversity and other development projects, an effective planning process should also recognise and reflect the fact that benefits of mainstreaming become apparent only over long periods of sustained engagement (Drutschinin et al., 2015). Therefore, support for mainstreaming is needed over long time frames, of at least 10-15 years. This represents a challenge, given a typical development co-operation project cycle of 3-5 years (Manuel et al., 2016; Thomas, 2014).

Finally, there is a need for robust M&E to be built into the programme planning and implementation cycle, in order to ensure that interventions are adjusted over time based on the results they achieve. Some common technical barriers to M&E include the lack of suitable indicators to measure the process, as well as the difficulty and cost of determining a baseline assessment (OECD, 2015; Dinshaw et al., 2014). While there are mechanisms that can address these shortcomings (e.g. Norway’s real-time evaluations that allow for adaptive management), there are more fundamental challenges which require a comprehensive organisational shift. An evaluation of Norad’s interventions in the field found that a lack of prioritisation of M&E from the management, inadequate time and incentives for staff to engage in the process, and competing priorities all hindered the effective monitoring, and the subsequent application of results in practice (Norad, 2014). Therefore, for an M&E process to be effective in improving interventions and generating good practice and lessons learned, development co-operation agencies need to support results monitoring more broadly across their organisations.

Notes

1. At the time of the review, there were 29 DAC members. In December 2016, Hungary joined the DAC as its 30th member.
2. Parker et al. (2012) estimate public and certain private biodiversity-related finance flows at USD 52 billion in 2010. By comparison, the aggregate resource requirements for all countries to achieve Aichi Targets 2011-20 are between USD 150 billion and USD 440 billion per year (CBD, 2012).
3. Following the 2009 political crisis, Madagascar saw a partial or complete suspension of funding by the majority of providers. This led to a more than a twofold decline in biodiversity-related official development assistance (ODA) commitments by DAC members, as reported to the OECD DAC Creditor Reporting System (CRS). With resolution of the political crisis in 2013, provider support has started to return, including in support of biodiversity objectives.
4. Based on Ethiopia’s submission to the CBD Financial Reporting Framework, <https://chm.cbd.int/database/record/207306>.
5. These statistics are based on the data reported by DAC members to the OECD DAC CRS as of November 2016. Data for 2015 are provisional. Detailed activity level data and information on the methodology are available online at <http://oe.cd/RioMarkers>.
6. Over the period 2006-14, three multilateral development banks (Asian Development Bank, Inter-American Development Bank, World Bank) and three biodiversity-related funds and programmes (Global Environment Facility, Nordic Development Fund, United Nations Development Programme) have to varying extents reported their biodiversity-related finance to the DAC CRS.

7. The survey focuses on the amounts mobilised from the private sector by guarantees, syndicated loans, shares in collective investment vehicles, credit lines and direct investments in companies.
8. ONFI is a subsidiary French Office National des Forêts (ONF).
9. Moringa Partnership www.moringapartnership.com/
10. In addition, the Ministry of Economy and Finance developed a set of standards for public investment projects in biodiversity and ecosystem services to further elaborate the process of public investment in biodiversity (MEF, 2015; BIOFIN, 2015).
11. At the time of the review, there were 23 DAC members (Roe, 2010).
12. Just under half of bilateral biodiversity-related ODA commitments (46%, USD 4.0 billion) targeted biodiversity as a primary or “principal” objective, meaning that these activities would not have been funded but for their biodiversity-related goal.
13. Cercle de Concertation des Partenaires Techniques et Financiers de l’Environnement.

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