A Decade of Development Finance for Biodiversity

2011-2020

OECD

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Please cite this publication as:
OECD (2023), *A Decade of Development Finance for Biodiversity*, OECD Publishing, Paris, https://doi.org/10.1787/e6c182aa-en.

ISBN 978-92-64-86274-6 (print)
ISBN 978-92-64-34287-3 (pdf)
ISBN 978-92-64-76372-2 (HTML)
ISBN 978-92-64-79838-0 (epub)

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Corrigenda to publications may be found on line at: www.oecd.org/about/publishing/corrigenda.htm.

Foreword

This report assesses the biodiversity contributions from all sources of development finance over 2011-2020: bilateral members of the OECD Development Assistance Committee (DAC), non-DAC members, providers of South-South and triangular co-operation, multilateral institutions, flows from the private sector mobilised by public official development finance (ODF), and private philanthropy.

Using a comprehensive methodology to identify biodiversity-related development co-operation flows in the Creditor Reporting System (CRS) and total official support for sustainable development (TOSSD) databases, it identifies the main biodiversity-related priorities and challenges, and formulates actionable policy recommendations to enhance biodiversity-related investments, and implement the Kunming-Montreal Global Biodiversity Framework under the Convention on Biological Diversity.

Chapter 1 provides an overview of biodiversity-related development finance.

Chapter 2 analyses biodiversity-related development finance over 2011-20 from all sources.

Chapter 3 explores biodiversity funding flows by region and country category – including the situation of small island developing states and fragile contexts – and looking at trends in marine and terrestrial biodiversity; the main sectors targeted by donors; cross-cutting issues, including climate change, nature-based solutions, desertification and gender equality; capacity development; as well as ODF for illegal wildlife trade and indigenous peoples and local communities.

Chapter 4 takes a forward-looking perspective, exploring the opportunities for biodiversity-related development finance to become more strategic, coherent and effective.

Chapter 5 concludes with recommendations for each of the main development co-operation actors to meet the biodiversity challenge and help close the funding gap.

By providing a better understanding of biodiversity-related ODF, the report facilitates stronger collaboration across development co-operation stakeholders and supports donors to be more effective. In particular, it can help reach the new resource mobilisation goals (i.e., target 19a on international finance flows) adopted in December 2022 at the 15th Conference of the Parties of the CBD, in which Parties agreed the Kunming-Montreal Global Biodiversity Framework.

The report also contributes to the implementation of the *OECD DAC Declaration on a new approach to align development co-operation with the goals of the Paris Agreement on Climate Change.*

Acknowledgements

The report was prepared by Juan Casado-Asensio and Dominique Blaquier under the oversight and supervision of Jens Sedemund. Haje Schütte provided strategic guidance, while the report also benefitted from the inputs of several OECD colleagues, from the Development Co-operation Directorate: Wiebke Bartz-Zuccala, Marisa Berbegal-Ibañez, Olivier Bouret, Xavier Bryant, Guillaume Delalande, Abdoulaye Fabregas, Manon Fortemps, Tomas Hos, Léopold Ghins, Giorgio Gualberti, Jonathan Marley, Nadine Piefer-Söyler, Maria Reis, Nathan Rueche, Piera Tortora and Kazuma Yabe and from the Environment Directorate, Edward Perry and Katia Karousakis. In addition, the authors would like to thank Sokob Challener for administrative support, as well as Joelle Bassoul, Ola Kasneci, and Henri-Bernard Solignac-Lecomte for communications, Fiona Hinchcliffe for editing and Benoît Melin for translations support.

The report was conceptualised with, and received the steer and useful comments from members of the Development Assistance Committee (DAC) Environment and Development Co-operation Network (ENVIRONET), Friends of Biodiversity Group, namely: Enrico dal Farra and Sandra Wibmer, (Austrian Development Agency); Sébastien Willemart and Annemarie Van der Avort (Belgium Federal Public Service Foreign Affairs, Foreign Trade and Development Cooperation); Moreno Padilla, Catherine Potvin, Pierre-Luc Saindon, and Hannane Sellali (Global Affairs Canada); Mathieu Babinet, Eléonore Cecillon, Stéphane Cieniewski, Arthur Francois, Thomas Garreau, and Julien Velud (French Treasury); Jean-Baptiste D'Isidoro, Eric David, Paul Salvaire, Laure Serra and Louise Rousseau (French Ministry for Europe and Foreign Affairs); Romain Chabrol and Naïg Cozannet (Agence Française de Development); Hélène Perier, Bernard Crabbé, Nadia Deckert and Juan Palerm (European Commission); Lorenzo Orioli and Iacopo Sinibaldi (Italian Agency for Development Cooperation); Bente Herstad (Norwegian Agency for Development Cooperation); Miguel Galante (Camões Cooperation and Language Institute, Portugal Ministry of Foreign Affairs); Ulrika Åkesson, Anna Axelsson and Maria Schultz (Swedish International Development Cooperation Agency); Luke Bailey and Samuel Leigh (United Kingdom Foreign, Commonwealth and Development Office); Jack Berry, William Broad, Bronwen Butler, Thomas Byrne, Joanna Macrae (United Kingdom Department for Environment, Food and Rural Affairs); Massimiliano Riva (European Bank for Reconstruction and Development); Damien Barchiche and Elise Dufief (Institut du Développement Durable et des Relations Internationales); Anna Ducros, Ebony Holland, Dilys Roe and Paul Steele (International Institute for Environment and Development); Markus Lehmann-Kleineidam (UN Convention on Biological Diversity Secretariat); Marco Arlaud, Annabelle Trinidad and Onno van den Heuvel (UNDP Biodiversity Finance Initiative); Valerie Kapos (UNEP World Conservation Monitoring Centre); Garo Batmanian, Lisa Farroway, Olga Gavryliuk, Samantha Power, Fiona Elizabeth Stewart and Elisson M. Wright (The World Bank).

Additional inputs were provided by Jurgis Pierre-Louis Sapijanskas and Mark Thomas Zimsky, Global Environmental Facility; Chris Dickinson, Green Climate Fund; Maria Dutto, Natalia Vargas Talero and Cristina Xalma, Ibero-American General Secretariat; Mauricio Luna, International Institute for Sustainable Development; Niklaus Eggenberger, Rwodah Ibrahim Al-Naimi, Maha Hamad Al Atiaya, Jawaher Badi Al-Naemi, Al-Jazi Abdulla Al-Buainain, Reem Ghanim Al-Sulaiti and Khalid Omar Abdulhadi, Qatar Fund for Development; and Torbjørn Gjefsen, Rainforest Foundation Norway.

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Abbreviations and acronyms

AsDB	Asian Development Bank
AFD	Agence française de développement (French Development Agency)
BIOFIN	UNDP's Biodiversity Finance Initiative
CBD	Convention on Biological Diversity
CIFs	Climate Investment Funds
CMPs	Collaborative management partnerships
COP	Conference of the Parties
COVID-19	Coronavirus disease
CRS	Creditor Reporting System
DAC	Development Assistance Committee
EBRD	European Bank for Reconstruction and Development
Eco-DRR	Ecosystem-based disaster risk reduction
ENABEL	Belgian Development Agency
EU	European Union
GBF	Global Biodiversity Framework
GDP	Gross domestic product
GCF	Green Climate Fund
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Co-operation)
GPEDC	Global Partnership for Effective Development Co-operation
IBRD	International Bank for Reconstruction and Development
IDDRI	Institut du Développement Durable et des Relations Internationales (Institute for Sustainable Development and International Relations)
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IWT	Illegal wildlife trade
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IPLCs	Indigenous peoples and local communities
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau (Credit Institute for Reconstruction)
LDCs	Least Developed Countries
LICs	Low Income Countries
LMICs	Lower Middle-Income Countries and Territories
NBSAP	National Biodiversity Strategy and Action Plan
NGOs	Non-government organisations
ODA	Official development assistance
ODF	Official development finance
OOF	Other official flows
PES	Payment for ecosystem services
QFFD	Qatar Fund for Development
REDD+	Reducing emissions from deforestation and forest degradation, conservation, sustainable management of forests and enhancement of forest carbon stocks
SDGs	Sustainable Development Goals
SEGIB	Secretaría General Iberoamericana (Ibero-American General Secretariat)
SIDS	Small island developing states
SSTrC	South-South and triangular co-operation
TOSSD	Total official support for sustainable development
UMICs	Upper Middle-Income Countries and Territories
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNDP-BIOFIN	UNDP Biodiversity Finance Initiative
UNEP-WCMC	United Nations Environment Programme World Conservation Monitoring Centre
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

Executive summary

Addressing biodiversity loss is central for sustainable development in both developed and developing countries. Yet, financing falls significantly short of meeting the urgent challenge of halting and reversing biodiversity loss.

This report analyses the contribution of development finance for biodiversity for the decade 2011-20, coinciding with the implementation period of the Convention on Biological Diversity (CBD) Strategic Plan on Biodiversity and its Aichi Targets – the roadmap driving international development co-operation action for biodiversity over that decade. It also looks in more detail at how this development finance is allocated by bilateral Development Assistance Committee (DAC) donors. It finds that:

- DAC members that are Parties to the CBD collectively achieved the Aichi Target 20 on resource mobilisation, as it relates to development finance. This holds true under two scenarios (i.e., using 100% of 'principal' and 'significant' biodiversity-related development flows reported to the OECD; as well as applying a 40% coefficient to 'significant' flows).
- Biodiversity-related official development finance (ODF), which includes official development assistance and other official flows, almost doubled over 2011-20 – from USD 5.4 billion to USD 10.4 billion (based on a conservative estimate using a 40% coefficient on 'significant' flows). This was primarily driven by bilateral DAC donors, who accounted for 73% of total ODF flows, with multilateral providers accounting for the rest (22%).

While total global biodiversity finance is estimated to have increased over the past decade, the biodiversity finance gap is still large, estimated at USD 700 billion per year, as stated in the recently agreed Goal D of the Kunming-Montreal Global Biodiversity Framework – which should be paving the way for action on biodiversity until 2050. Although ODF is an essential element of total global biodiversity finance, it cannot mend the gap alone, even if it were to increase substantially, including with contributions channelled through the multilateral system. The amounts of private sector finance leveraged by ODF remains low (under USD 150 million on average for the period 2017-20) and call for an urgent assessment of the situation, as well as for an exchange among DAC members on lessons learnt, challenges and good practices. It will also be important to evaluate how ODF can better support the transformational changes necessary to transition to more sustainable pathways and how private finance can be leveraged to an order of magnitude closer to USD billion than the current USD million.

Recommendations

Increase development finance for biodiversity

- **DAC members**, as well as other providers, would need to increase their ODF for biodiversity-related activities in line with the recent resource mobilisation strategy of the Global Biodiversity Framework. DAC members should also grow ODF for biodiversity as a core or principal objective and ensure that flows balance marine and terrestrial biodiversity hotspots in middle-income

countries, on the one hand, with finance for least-developed, small island developing states and fragile contexts, where nature underpins sustainable development, on the other hand.

- **Multilateral institutions** can also increase their biodiversity activities, also in line with recent requirements put forward by the Global Biodiversity Framework, and mainstream biodiversity more actively into their policies and operations, in line with the *MDB Joint Statement on Nature, People and Planet* and the Global Biodiversity Framework.
- **Public interventions (bilateral and multilateral) will need to work harder to mobilise more private finance, which will be key for filling the funding gap**. This can be achieved by leveraging existing and developing new financing tools, resources and partnerships.
- **Private philanthropic actors** could increase their role further by joining forces with public providers of development finance for biodiversity, thus enhancing their impact and learning.

Use development finance more strategically, coherently and effectively

- **Donors can do more to mainstream biodiversity across the full range of their activities.** In addition, donors could consider moving to longer-term, more flexible modalities of development co-operation, in line with the functioning and needs of natural ecosystems and biodiversity.
- **Donors need to find ways to assess the volume of ODF that is potentially harmful to biodiversity** and to evaluate how ODF can better support the transformation towards net zero, climate resilient and nature positive pathways.
- **Donors should minimise trade-offs and maximise synergies across biodiversity, climate and other environmental dimensions.** Failure to do so could lead to resource inefficiencies and impaired outcomes.
- **Governments worldwide need to identify and reform potentially environmentally harmful support** across a range of sectors, including mining, energy, agriculture and fisheries – and **all providers will need to help partner countries to do so through capacity development**.
- **Donors need to be more rigorous at monitoring development finance interventions to support biodiversity and their outcomes**. It is essential to understand when, where and why interventions have been successful in the past to pave the way to scaling them up.

Reinforce the quality and consistency of reporting on biodiversity-related ODF

- **Resolve inconsistencies in how the Rio Markers and the SDGs are applied and interpreted by countries**.
- **Address the transparency, data gaps and inconsistencies in the tracking and reporting of development finance for biodiversity beyond the DAC.** Many multilateral institutions still need to identify their biodiversity-related flows to the OECD and strengthen public reporting more widely. Non-DAC, South-South and triangular co-operation providers could also report to the OECD on biodiversity. While work is ongoing to enhance the quality and scope of data available on biodiversity, further guidance for bilateral donors may be necessary for them to track mobilised private finance and for multilateral donors aiming to target biodiversity-related activities.
- **Increase transparency and unify standards** across reporting obligations to the OECD and CBD; and provide more disaggregated information when reporting. This will improve data quality and comparability, simplifying data exchange and scrutiny, as well as communication.

1 Biodiversity: The key to unlocking sustainable development

With all economic activity and human well-being depending on nature, biodiversity loss ranks among the fundamental threats to humanity. Biodiversity loss, environmental degradation, and the collapse of ecosystem services have an especially heavy cost for developing countries, yet they lack the appropriate frameworks, finance, capacity, human resources, and technologies to conserve and manage biodiversity. Mobilising resources for biodiversity in developing countries is therefore central to sustainable development. This chapter sets the scene for this report, outlining the global context and frameworks for biodiversity finance, which culminated in the Kunming-Montreal Global Biodiversity Framework (GBF), agreed at COP15 in December 2022. It spells out the biodiversity financing challenge and describes the main sources of biodiversity-related development finance which will be analysed in this report.

Addressing biodiversity loss is central for sustainable development in developing countries

Biodiversity loss and the collapse of ecosystem services are much more than environmental problems. They constitute urgent development issues with economic and social repercussions (IPBES, 2018[1]), notably loss of economic opportunities and livelihoods (OECD, 2019[2]; OECD, 2021[3]), and deepening poverty (IIED, 2019[4]). Biodiversity loss undermines food security, agricultural productivity and resilience (IFAD, 2021[5]); it affects the sustainability of the ocean economy (OECD, 2020[6]) and the fisheries sector (UNEP, 2021[7]), as well as the availability of freshwater (Albert et al., 2021[8]); it also fuels fragility, insecurity and conflict (CEOBS, 2021[9]; Daouda Diallo, 2021[10]; OECD, 2022[11]) and contributes to the emergence and spread of zoonotic diseases (OECD, 2020[12]; WHO, 2020[13]). What is more, losing biodiversity also means losing opportunities for stabilising and coping with climate change (UNEP, 2021[7]) and the loss of ecosystem services (IIED, 2019[4]; UNEP, 2021[14]). Biodiversity loss and climate change mutually reinforce each other and are now considered systemic risks and "twin crises" (IPBES and IPCC, 2021[15]). In fact, biodiversity loss ranks among the top perceived threats to humanity, just after weapons of mass destruction and state collapse (WEF, 2022[16]).

All economic activity and human well-being depend on nature (Dasgupta, 2021[17]; IPBES, 2022[18]; OECD, 2021[3]). The economic value of biodiversity is large, even though estimates vary. For example, the current economic value of protected areas is estimated at approximately USD 6 trillion annually (UNDP; Secretariat of the CBD; UNEP-WCMC, 2021[19]; FAO, 2022[20]). According to the World Economic Forum, global biodiversity has an economic value of USD 44 trillion and over half of the world's GDP moderately or highly depends on nature (World Economic Forum and AlphaBeta, 2020[21]). Other estimates point at a global value of nature and its ecosystem services of USD 125-145 trillion, representing over 150% of global GDP (Costanza et al., 2014[22]). The value of pollination is just one example of the economic and business case for biodiversity action, as it increases the global value of crop production by USD 235-577 billion per year (IPBES, 2016[23]).

However, despite the value of nature, the anthropogenic pressures on biodiversity and ecosystem services keep growing (Gilbert, 2022[24]; IPBES, 2019[25]; Newbold et al., 2015[26]). The expansion of agriculture, forestry, fisheries, aquaculture, mining, industry, urbanisation, and transport all interfere with terrestrial, freshwater, and marine ecosystems (IPBES, 2019[25]). Globally, food systems are responsible for 80% of deforestation and 70% of freshwater use, and are the single greatest cause of terrestrial biodiversity loss (UNCCD, 2022[27]). Land-based activities are also at the source of most biodiversity loss in coastal areas (IRP, 2021[28]). Assessments by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) are showing a rapid decline in most indicators of ecosystems and biodiversity health (IPBES, 2019[29]). As mentioned, these phenomena are all altering the very basis that underpins economic activity and human societies, including their well-being, safety, and development (Hoegh-Guldberg, Jacob and Taylor, 2018[30]).

Biodiversity loss, environmental degradation, and the collapse of ecosystem services – such as wild pollination, climate regulation, nutrient cycling, or water and air purification – have a heavier relative cost for developing countries (Swiss Re, 2020[31]). As in other domains, many developing countries face severe challenges in conserving, sustainably using, and restoring their biological diversity. These countries rely on nature and functional ecosystems to sustain livelihoods but lack the appropriate frameworks, sufficient finance, capacity, human resources, and technologies to conserve them, while simultaneously being faced with pressing development needs (Brörken et al., 2022[32]). In fact, according to the World Bank, significant degradation of biodiversity globally would cost 2.3% of global GDP or around USD 2.7 trillion annually by 2030, with the poorest hit hardest (World Bank Group, 2021[33]). Impacts are likely to be particularly severe in low-income rural and urban populations, as well as marginalised communities such as indigenous peoples and women (Förster, 2022[34]; CBD, 2022[35]).

The effects of COVID-19 have exacerbated current trends in biodiversity loss

The identification of COVID-19 as a possible zoonotic disease has emphasised the link between infectious diseases, the destruction of ecosystems, illegal wildlife trade and human encroachment on nature. Yet, the repercussions of pandemic lockdowns and reduction in economic activities have intensified biodiversity loss in many countries (Corlett et al., 2020[36]). Many developing countries, including some of the most biodiversity-rich countries in the world, were already struggling to finance biodiversity prior to the pandemic, but had to increase spending on health measures, and to support households and firms, at a time when sources of domestic revenue, including ecotourism revenues and external private finance, was waning (Akinsorotan et al., 2021[37]). As a result, illegal deforestation, mining, and other unsustainable activities increased in some countries with the onset of the COVID-19 pandemic (OECD, 2020[12]; Hoover El Rashidy, 2021[38]; Vivid Economics, 2020[39]). For example, on-site management of Madagascar's protected areas was suspended from March to July 2020, which is associated with 76–248% more fires than usual (Eklund et al., 2022[40]). Lockdowns have also interrupted on-site protected-area management activities in other countries (Singh et al., 2021[41]), and led to a drop in ecotourism (Fletcher et al., 2020[42]), affecting the livelihoods of local communities (World Bank, 2021[43]) and increasing the pressure on natural resources. Although the pandemic is losing intensity over time, its impacts may be long-lasting (FAO, 2022[20]), including complicating the achievement of all the Sustainable Development Goals (SDGs) (Zhao et al., 2022[44]).

While much expectation was placed on post-pandemic recovery plans being "green", they have not mobilised sufficient resources to ensure sustainable development pathways that help protect biodiversity (Vivid Economics, 2020[39]). Green measures accounted for just 2.6% of total fiscal spending during the pandemic (i.e., USD 420 billion out of USD 16 trillion) by the world's 87 largest economies (FAO, 2022[20]). According to the OECD, spending on environmentally positive measures represented only 21% of total COVID-19 recovery spending in 2021 (up from 17% in 2020) in OECD, European Union (EU) countries and emerging economies (OECD, 2021[45]). However, less than 11% of this 21% benefitted biodiversity. Hence, tackling and slowing the rate of biodiversity loss will require further ambition, co-ordination and collaboration across governments, donors, civil society and the private sector in the post-pandemic period (WWF, 2022[46]; Zhao et al., 2022[44]).

Recent United Nations Convention on Biological Diversity (CBD) assessments and the Kunming-Montreal Global Biodiversity Framework itself highlight that CBD Parties will need to scale up their ambition and address the direct and indirect drivers of biodiversity loss, including through resource mobilisation strategies, namely by: (a) adopting national biodiversity strategies and mainstreaming biodiversity considerations; (b) generating new and additional international and domestic financial resources, both private and public, while also reducing expenditures that harm biodiversity and redirecting or realigning them to supporting biodiversity; and (c) enhancing the effectiveness and efficiency of resource use, as well as identifying and increasing biodiversity co-benefits from funding aiming at other objectives, e.g. such as nature-based solutions for climate change mitigation and adaptation (CBD, 2022[47]; CBD, 2020[48]; CBD, 2021[49]; CBD, 2020[50]; CBD, 2020[51]) (see Box 3.1 for a definition of nature-based solutions).

The international community is increasing its focus on funding for biodiversity

Resource mobilisation for biodiversity in developing countries is central to sustainable development. The 2030 Agenda for Sustainable Development, which includes two biodiversity-focused SDGs – (14) Life Below Water and (15) Life on Land – calls for resources to be mobilised from all sources and at all levels to conserve and sustainably use biodiversity (United Nations, 2015[52]). Importantly, the Addis Ababa Action Agenda, which provides a guide for financing the SDGs, also recognises the importance of protecting biodiversity and ecosystems (United Nations, 2015[53]).

In 2010, the CBD agreed to a Strategic Plan for Biodiversity 2011-2020 and established the Aichi Biodiversity Targets, which consisted of five strategic goals and 20 targets, including Target 20 on resource mobilisation to be achieved by 2020 (UNEP, 2021[54]). At the 12th CBD Conference of the Parties (COP) in Korea in 2014, Decision XII/3 on Resource Mobilisation reaffirmed Parties' commitment to an overall substantial increase in total biodiversity-related funding from a variety of sources for the implementation of the Strategic Plan, with a particular focus on support to least-developed countries (LDCs) and SIDS (CBD, 2014[55]). At the 14th COP of the CBD in Egypt in 2018, Parties affirmed that resource mobilisation would be an integral part of the Global Biodiversity Framework (GBF), agreed at COP15 in December 2022 to follow on from the Strategic Plan for Biodiversity 2011-2020 and Aichi Biodiversity Targets.

The GBF builds upon the agreed Kunming Declaration of 2021, which highlights the need to provide developing countries with the necessary means of implementation – including financial, technology and capacity building – and to align all financial flows with supporting the conservation and sustainable use of biodiversity (Kunming Declaration, 2021[56]). The Declaration also aims at increasing the application of ecosystem-based approaches in addressing biodiversity loss, restoring degraded ecosystems, boosting resilience, and mitigating and adapting to climate change; and ensuring benefits across economic, social, and environmental dimensions of sustainable development, through robust safeguards for environmental and social protection (Kunming Declaration, 2021[56]). Meanwhile, the Global Biodiversity Outlook 5 confirmed that many of the Aichi Targets had not been achieved in 2020 (CBD, 2020[57]); while the IPBES also concluded that negative trends in biodiversity and ecosystems will undermine progress towards 35 of 44 of the assessed targets of the SDGs and that are relevant to biodiversity (IPBES, 2019[29]).

The new GBF therefore emphasises the continued loss of biodiversity and the threat that this poses to nature and human well-being, and the importance of having an ambitious resource mobilisation strategy to support implementation of the Framework. These calls are operationalised through GBF Goal D to 2050 and Target 19 to 2030, both of which have implications for development finance (CBD, 2022[47]). Notably, international finance from developed countries, and other countries that assume obligations of developed country Parties, are to mobilise at least USD 20 billion per year by 2025 and at least USD 30 billion by 2030 for developing countries (see Box 1.1 for further details).

Box 1.1. Finance provisions of the Kunming-Montreal Global Biodiversity Framework

The Global Biodiversity Framework includes a set of four Global Goals for 2050 (CBD, 2022[47]). Pertinent to development finance is Goal D: "Adequate means of implementation, including financial resources, capacity-building, technical and scientific co-operation, and access to and transfer of technology to fully implement the Kunming-Montreal global biodiversity framework are secured and equitably accessible to all Parties, especially developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, progressively closing the biodiversity finance gap of 700 billion dollars per year, and aligning financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for Biodiversity."

The Goals are further broken down into 23 action-oriented global targets for urgent action over the decade to 2030. Under Goal D, Parties are called to reach a new resource mobilisation target 19, which aims to: "Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources, in accordance with Article 20 of the Convention, to implement national biodiversity strategies and action plans, by 2030 mobilizing at least 200 billion United States dollars per year, including by:

(a) Increasing total biodiversity related international financial resources from developed countries, including official development assistance, and from countries that voluntarily assume obligations of developed country Parties, to developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, to at least US$ 20 billion per year by 2025, and to at least US$ 30 billion per year by 2030;

(b) Significantly increasing domestic resource mobilization, facilitated by the preparation and implementation of national biodiversity finance plans or similar instruments according to national needs, priorities and circumstances;

(c) Leveraging private finance, promoting blended finance, implementing strategies for raising new and additional resources, and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments;

(d) Stimulating innovative schemes such as payment for ecosystem services, green bonds, biodiversity offsets and credits, benefit-sharing mechanisms, with environmental and social safeguards

(e) Optimising co-benefits and synergies of finance targeting the biodiversity and climate crises,

(f) Enhancing the role of collective actions, including by indigenous peoples and local communities, Mother Earth centric actions and non-market-based approaches including community based natural resource management and civil society co-operation and solidarity aimed at the conservation of biodiversity; and

(g) Enhancing the effectiveness, efficiency and transparency of resource provision and use."

In addition, COP15 also approved the Monitoring Framework for the Kunming-Montreal Global Biodiversity Framework (CBD, 2022[58]) and a resource mobilisation strategy (CBD, 2022[59]).

The priorities highlighted in the Kunming Declaration and the GBF have also been emphasised by the international community beyond and in light of the CBD negotiations (Box 1.2) (IIED, 2019[4]; Parrotta et al., 2022[60]). For example, the Leaders' Pledge for Nature commits endorsers to reverse biodiversity loss by 2030 (Leaders Pledge for Nature, 2022[61]); the High Ambition Coalition for Nature and People intergovernmental group champions a global deal for nature and people, aiming to protect at least 30% of

the world's land by 2030 (High Ambition Coalition for Nature and People, n.d.[62]); the Global Ocean Alliance aims to protect at least 30% of the global ocean by 2030; the Bonn Challenge aims at bringing 350 million hectares of land into restoration by 2030 (UNDP; Secretariat of the CBD; UNEP-WCMC, 2021[19]); the LEAF Coalition aims to halt deforestation through the financing of large scale tropical forest protection (LEAF Coalition, n.d.[63]); and the Kiwa Initiative aims to fund coastal zone restoration and preservation projects. Another coalition has launched the "Nature-based Solutions for Climate Manifesto", a plan to unlock the full potential of nature for climate action, with the support of more than 70 governments, private sector, civil society and international organisations and accompanied by nearly 200 initiatives and good practices from around the world (Terton, 2022[64]). In addition, the G7 has recently issued a Climate, Energy and Environment Communiqué (G7 Germany, 2022[65]), which aims to mobilise resources from all sources and substantially increase funding for nature by 2025, and to ensure international development assistance does no harm to nature by 2025, in line with the Nature Compact commitments (G7 Cornwall, 2021[66]). Finally, the G20 Rome Leader's Declaration aims at strengthening the synergies between climate and biodiversity action, including through nature-based solutions.

Box 1.2. Recent high-level pledges and declarations for financing nature and biodiversity

The Leaders' Pledge for Nature has been endorsed by governments from 94 countries (Leaders' Pledge for Nature, 2020[67]). The Pledge, among other things, aims at putting biodiversity, climate and the environment at the heart of national and international development and co-operation; aligning financial flows with the environment and the SDGs; taking into account the value of nature and biodiversity, as well as promoting biodiversity conservation, restoration and its sustainable use in investment, financing and risk management. It also aims at enhancing the mobilisation of resources, maximising the effectiveness and efficiency of existing resources, and facilitating access to support where needed, to significantly scale up aid for biodiversity, including through nature-based solutions.

The G7 Nature Compact aims at a net-zero, nature-positive world (G7 Cornwall, 2021[66]). To do so, the G7 reaffirmed its commitment to increase investment in nature from all sources, through nature-based solutions; ensure nature is accounted for, and mainstreamed, in economic and financial decision-making by promoting international development assistance that does no harm to nature; and encourage multilateral development banks, international and development finance institutions to embed nature into their activities, and to increase and mobilise finance for nature. In addition, this statement was further strengthened through the recently issued G7 Climate, Energy and Environment Communiqué (G7 Germany, 2022[65]).

The G20 Rome Leader's Declaration underlines the synergies between climate and biodiversity, notably in financial flows for these objectives (G20 Rome, 2021[68]). In this context, leaders recognise the importance of nature-related financial disclosure and the need to scale up and encourage the implementation of nature-based solutions or ecosystem-based approaches.

The 10-Point Plan for financing biodiversity has been endorsed by over 40 developed and developing countries across six continents (UK, 2022[69]). The plan aims to define a clear pathway for bridging the biodiversity finance gap, defining roles for all sources of finance (including development finance), raising awareness, and supporting the CBD negotiations processes. In addition, it focuses on the elements to build a just transition towards a nature-positive economy.

Finally, 14 DAC donors published the Joint Donor Statement issued at COP15 (Joint Donor Statement, 2022[70]) setting out the key areas of biodiversity finance and their intent to increase flows to biodiversity in support of the CBD negotiations and the agreement on a post-2020 Global Biodiversity Framework.

In parallel, private-led initiatives to increase awareness and leadership on nature, as well as financing biodiversity conservation, have also sprouted, such as the Coalition for Private Investments in

Conservation, the World Forum on Natural Capital, the Conservation Finance Network, the Conservation Finance Alliance (Standing, 2021[71]), the Finance for Biodiversity Pledge, Business for Nature, Nature Action 100, the Taskforce on Nature-Related Financial Disclosures, or the Green Gigaton Challenge. These have different remits and members and overlap partially with the objectives of public pledges and the GBF. Some of them openly call for the blending of public and private finance, including for the benefit of developing countries. For example, the Green Gigaton Challenge is a public-private initiative to catalyse funds from private companies and international donors to reduce tropical deforestation, including through reducing emissions from deforestation and forest degradation, conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+) (Green Gigaton Challenge, n.d.[72]); while the Finance for Biodiversity Pledge concerns financial institutions representing 18 countries and over USD 12 trillion in assets (Finance for Biodiversity Pledge, n.d.[73]).

Finally, the international framework that guides biodiversity-related action has recently taken a new direction, looking for better co-ordination between climate and biodiversity objectives (Maron, Simmonds and Watson, 2018[74]; Leaders Pledge for Nature, 2022[61]). Synergies between the CBD and the United Nations Framework Convention on Climate Change (UNFCCC) emerged with the Glasgow Climate Pact agreed at the 26th COP of the UNFCCC in the United Kingdom in 2021. The Pact included an agreement to set up carbon offset markets (through Article 6 of the Paris Agreement), which may help tap into the potential for investing in nature-based solutions, provided the markets are well-designed. Moreover, the Glasgow Leaders Declaration on Forests and Land Use asserts the importance of leveraging multiple UN processes to halt deforestation by 2030. This Declaration is supported by and builds upon unprecedented pledges (e.g. USD 15 billion in donor funds and USD 7 billion from the private sector to support implementation). It makes explicit reference to the United Nations Decade on Ecosystem Restoration (2021-30), which aims at a 50% reduction of degraded land by 2040 on a voluntary basis, achieving Land Degradation Neutrality by 2030, and repairing over 2 billion hectares of degraded land around the world. These are objectives under the UN Convention to Combat Desertification, but with direct implications for biodiversity (UNCCD, 2022[27]).

The biodiversity financing gap is large

To 'halt and reverse' biodiversity loss, adequate policy frameworks and resource mobilisation will be central (Maron, Simmonds and Watson, 2018[74]; CBD, 2020[50]). Even though higher levels of resources do not always guarantee higher levels of conservation or the sustainable use of biodiversity, research shows that on average a higher allocation of resources to biodiversity activities is associated with reduced biodiversity loss (CBD, 2020[50]). Yet globally, only 0.1% of GDP is channelled to biodiversity (OECD, 2020[75]). Recent estimates of global biodiversity spending vary:

- USD 78-91 billion annually, based on data reported for the period 2015-17 (OECD, 2020[75]).
- USD 124-143 billion annually, with 80-85% of the funding derived from the public sector, based on data reported and extrapolations (Deutz et al., 2020[76]).
- USD 154 billion annually (UNEP, 2022[77]), based on 2022 public and private financial flows to nature based solutions.

While expenditure on biodiversity has increased over time (Parker et al., 2012[78]), research broadly indicates a significant and persistent biodiversity funding gap (Tobin-de la Puente and Mitchell, 2021[79]; Deutz et al., 2020[76]; WWF, 2022[46]). Although there is wide variation due to methodological differences, the estimates on global biodiversity funding needs vary from:

- USD 103-178 billion annually, based on the needs expressed to finance the expansion of conservation areas to 30% of the earth's surface by 2030 (Waldron et al., 2020[80]).

- USD 105-306 billion annually for implementing the Global Biodiversity Framework (CBD, 2021[81]); to
- USD 598-824 billion annually by 2030 (World Bank, 2021[43]; CBD, 2021[49]).
- USD 674 billion annually to meet biodiversity loss, land degradation and climate change targets by 2050 (UNEP, 2022[77]); and to
- USD 700 billion annually (CBD, 2022[47]) to close the biodiversity finance gap and fully implement the Kunming-Montreal Global Biodiversity Framework especially in developing countries.

Some developing countries, including those that are key to biodiversity, are particularly underfunded (IPBES, 2018[1]). For example, the 40 most underfunded countries in terms of biodiversity harbour 32% of all threatened mammalian diversity (Waldron et al., 2013[82]). In another example, research also finds that out of 282 state-owned protected areas in Africa with lions, 94% were inadequately funded in 2018, with available funding satisfying only 10-20% of their requirements on average. Such funding gaps, as well as other factors (e.g. poor governance, deficient policy frameworks, perverse incentives), have led to the underperformance of many protected areas, putting species, ecosystems and inclusive development at risk (World Bank, 2021[43]).

What is more, the biodiversity funding gap is not static and is likely to increase if the underlying drivers and pressures on biodiversity loss are not addressed (IPBES, 2019[29]). In OECD countries, the EU and emerging economies, domestic public expenditure accounts for the lion's share of total biodiversity expenditure, amounting to between 75-87% of the total (OECD, 2020[75]). In developing countries, only 13% of biodiversity investments come from national budgets (Waldron et al., 2013[82]). The relative importance of domestic public finance for biodiversity in developing countries, compared with other sources, has also been observed in a recent compilation of studies on the finance available to support nature-based solutions and forestry in developing countries (FAO, 2022[20]). As such, the Global Futures project estimates that under a business-as-usual scenario, the costs of biodiversity loss in some developing countries could be as high as 4% of their GDP per year by 2050 (World Bank Group, 2021[83]). Against this backdrop, many developing countries may not be able to dedicate sufficient resources to cover the costs of conserving and sustainably using biodiversity, while simultaneously sustaining domestic livelihoods (UNCCD, 2022[27]). Extra-budgetary support may therefore still be needed, including from public and private international finance (Berghöfer et al., 2017[84]).

What are the main sources of biodiversity-related development finance?

Despite the substantial contribution biodiversity makes to sustainable development, it remains chronically underfunded. This is particularly the case in developing countries, which often rely on development finance to support the conservation and sustainable use of biodiversity (World Bank, 2021[43]). As biodiversity is a public good, and in some cases open access, governments have a key role to play in addressing the market failures that arise in these contexts, including by putting in place policy frameworks to reflect the true values of biodiversity in decision making and by supporting policies, programmes and projects via public finance (OECD, 2018[85]). Biodiversity-related development finance (Box 1.3) has been an important, countercyclical flow, playing a key role in protecting biodiversity and supporting local livelihoods in many developing countries, especially LDCs and SIDS, and including during the COVID-19 crisis (even though further action to protect biodiversity could have been taken in post-pandemic plans).

Box 1.3. What is biodiversity-related development finance?

Official development finance (ODF) is a broad measure of developing countries' official receipts for developmental purposes and is defined as the sum of bilateral official development assistance (ODA) flows, bilateral other official flows (OOF, except OOF grants and loans for commercial purposes), and grants and loans by multilateral development institutions, irrespective of the grant element of the loans.

Biodiversity-related development finance in this report refers to development finance expenditures that contribute directly, or aim to contribute, to the conservation, sustainable use and restoration of biodiversity (including through reaping multiple benefits across sectors such as agriculture, fishing or water and sanitation). Biodiversity-related development finance stems from both public (i.e. bilateral and multilateral providers) and private sources (i.e. philanthropic foundations and amounts mobilised from the private sector through public development finance) and may be delivered through various finance instruments (e.g. grants, loans, equity investments). When provided through public development finance, it therefore includes ODA and OOF, which are designed to support and promote the economic development and welfare of developing countries.

Source: OECD (2021[86]) Converged Statistical Reporting Directives for the Creditor Reporting System (CRS) and the Annual DAC Questionnaire, DCD/DAC/STAT(2020)44/FINAL.

Development co-operation has been at the centre of recent CBD assessments of resource mobilisation for biodiversity, highlighting the need to continue directing international funding flows to developing countries and economies in transition to achieve the objectives of the Convention. The main sources of biodiversity-related development finance are bilateral donors, i.e. OECD Development Assistance Committee (DAC) members; multilateral development institutions; non-DAC donors and South-South and triangular co-operation providers; private sector finance mobilised by development co-operation flows and private philanthropic foundations.

DAC members have been core development finance providers for biodiversity and remain committed in this area

Most DAC members have been funding biodiversity-related activities long before the approval of the UN Convention on Biological Diversity achieved during the Rio Conference in 1992, also known as the Earth Summit (UN, 1992[87]). The DAC has also long recognised the importance of biodiversity in development co-operation. For example, in 2010 the DAC issued a *Policy Statement on Integrating Biodiversity and Associated Ecosystem Services into Development Co-operation* (OECD, 2010[88]), which aimed at integrating biodiversity into development and poverty reduction policies, plans, programmes and projects, as well as in budget processes and partner country dialogues. The Policy Statement also aimed at mainstreaming biodiversity into all aspects of development co-operation. More recently, the *OECD DAC Declaration on a New Approach to Align Development Co-Operation with the Goals of the Paris Agreement on Climate Change* commits members to embedding nature into their analyses, policy dialogue and operations (OECD, 2021[89]). Accordingly, DAC members recognise the need to align development finance with environmental and biodiversity objectives (notably through nature-based solutions), as well as to align biodiversity and climate policies.

At CBD COP15, furthermore, 14 DAC members issued a Joint Donor Statement on International Finance for Biodiversity and Nature (Joint Donor Statement, 2022[70]). The Statement notes members' intention to continue increasing international biodiversity finance and align relevant international development flows, commensurate with the ambition of the GBF. The Statement is in part a response to the 10 Point Plan for Financing Biodiversity, an initiative launched by Ecuador, Gabon, the Maldives and the UK, to provide a

blueprint for bridging the current biodiversity financing gap (Department for Environment, Food and Rural Affairs, 2022[90]), and which also specifies the role donor finance must play and has also been endorsed by 10 DAC members.

Multilateral development institutions play a key complementary role

While DAC members are the largest providers of bilateral development finance for biodiversity, multilateral development institutions (international financial institutions, multilateral or regional development banks, and UN institutions) also have a key, and complementary, role to play (Drutschinin and Ockenden, 2015[91]; OECD, 2020[75]; Hoover El Rashidy, 2021[38]; OECD, 2021[3]). Typically, multilateral institutions have helped de-risk private biodiversity-related investments through concessional loans and have provided grants to foster capacity development. They have also been key in mobilising additional finance through the development of debt-related schemes (Responsible Investor Research and Credit Suisse, 2021[92]), and see Box 1.2 and Box 4.2.

Most multilateral institutions work in the field of biodiversity (e.g. Asian Development Bank, IFAD, International Development Association, Inter-American Development Bank, UNDP). One of the most important multilateral institutions in this area, is the Global Environment Facility (GEF), created as the mechanism to finance the projects related to global goods of the Rio Conventions in developing countries, and it has seen its role in the biodiversity-related space grow over time (WWF, 2020[93]); see Box 4.1. An increasingly large share of what DAC members spend on biodiversity, in some cases almost all, is channelled through their multilateral contributions to GEF. Moreover, to complement existing support and scale up financing to ensure its timely implementation, the recent COP15 resource mobilisation decision requests the GEF to establish a new Global Biodiversity Framework Fund in 2023 (CBD, 2022[59]).

Other institutions have also grown in importance. For example, the World Bank Group has traditionally had a large portfolio of biodiversity projects focused on protected areas, improving natural resource management, and mainstreaming biodiversity into forestry, coastal zone management, and agriculture (World Bank, 2008[94]). Other examples include the European Bank for Reconstruction and Development (EBRD), which supports capacity development programmes for biodiversity (Responsible Investor Research and Credit Suisse, 2021[92]); the Asian Development Bank (AsDB), which is a key player in initiatives to improve conservation in the Greater Mekong region (AsDB, 2018[95]); or the International Fund for Agricultural Development (IFAD), which has been central in promoting sustainable smallholder agriculture and agrobiodiversity (IFAD, 2021[5]). In addition, research shows the key role played by multilateral organisations in promoting climate change adaptation and mitigation through the forestry sector, e.g. through the Forest Investment Programme of the Climate Investment Funds and the Green Climate Fund's (GCF) USD 500 million REDD+ pilot financing programme (FAO, 2022[20]; Parrotta et al., 2022[60]); in providing nature-based solutions (Oliver and Marsters, 2022[96]) and in the land sector (Woollands, Kachi and Lagarreta, 2022[97]).

Non-DAC donors, South-South and triangular co-operation can offer valuable biodiversity support

Many countries which are not DAC members also have long traditions of providing development co-operation. These providers are a diverse group of countries which include several Arab Gulf countries; 'emerging' economies such as Brazil, India, the People's Republic of China and South Africa; some EU Member States in central Europe; and several countries in Asia, Africa and Latin America. Although these countries are not members of the DAC, some have more characteristics in common with DAC members than with other emerging providers (Luijkx and Benn, 2017[98]). Most of them are upper middle-income or high-income countries and many are, or have been, both providers and recipients of development co-operation (Muchetu and Shonhe, 2022[99]; Simeón, Li and Xiao, 2022[100]). Many refer to themselves as

providers of South-South co-operation, thus exchanging resources, technology, and knowledge between developing countries, and often engaging in triangular co-operation, including with DAC members.

These countries also provide bilateral biodiversity-related ODF (OECD, 2019[101]) and are seen as key actors in the landscape of resource mobilisation for biodiversity (CBD, 2020[51]). For example,

- Many non-DAC EU members have committed to international initiatives such as the Leaders' Pledge for Nature (Leaders' Pledge for Nature, 2020[67]).
- China, which presided over the CBD COP15, has launched a development finance mechanism, the Kunming Biodiversity Fund, endowed with USD 235 million to support biodiversity conservation in developing countries (Nature, 2021[102]). China has also been contributing to biodiversity over 2006-20 with 73 foreign assistance projects and programmes, as well as three voluntary contributions to international organisations worth USD 27 million (WWF, 2021[103]).
- South-South and triangular co-operation (SSTrC) has been particularly important in Latin America and the Caribbean, with a growing number of activities (see Box 2.2).

Philanthropy is a growing player

The number of foundations has increased in the last 20 years, as has the wave of interest in their role as funders, innovators and partners of international development (OECD, 2018[104]). Biodiversity-related initiatives from private philanthropies have also grown in importance, often helping to plug funding gaps in developing countries. Foundations have supported a range of activities, from integrated natural resource management to financing specific activities such as anti-poaching efforts, conservation of strategic ecological corridors or promoting payments for ecosystem services, e.g. by the African Wildlife Foundation in Kenya and Tanzania (UNCCD, 2022[27]). Philanthropies also have an important role in supporting indigenous peoples and local communities' (IPLC). Examples include the Oak Foundation and Ford Foundation (Rainforest Foundation Norway, 2021[105]), and the Brazilian Amazon Region Protected Areas (ARPA) programme. ARPA was launched in 2002 by the Brazilian Government to support large-scale biodiversity conservation (da Silva and Bueno, 2017[106]). It developed a multi-stakeholder model of institutional partnerships, including foundations (e.g. Gordon and Betty Moore Foundation), public donors (e.g. Germany, GEF, World Bank, Inter-American Development Bank) and civil society (e.g. WWF). A final example is the Bezos Earth Fund, which has collaborated with the Wildlife Conservation Society to create new protected areas in the Congo Basin and strengthen their management, in partnership with governments, IPLCs, businesses, and civil society (Bezos Earth Fund, 2021[107]).

Moreover, in the context of the UNFCCC COP26, several philanthropies joined governments, civil society and the private sector in their biodiversity-related pledges. For example, nine philanthropic organisations, including the Arcadia Fund, Bloomberg Philanthropies, and the Gordon and Betty Moore Foundation, launched the Protecting Our Planet Challenge, pledging USD 5 billion over a decade (the largest philanthropic commitment to nature conservation ever) to support efforts to protect and conserve 30% of the planet by 2030 (Nature, 2021[102]). In addition, at the latest United Nations Convention to Combat Desertification (UNCCD) in Côte d'Ivoire (COP15, in May 2022), 12 governments and foundations pledged USD 1.5 billion to protect forests in the Congo Basin; 14 countries and philanthropic foundations committed USD 1.7 billion over 2021-25 to advance IPLCs' forest tenure rights; and the Bezos Earth Fund pledged USD 1 billion to accelerate landscape restoration in the Great Green Wall of Africa (UNCCD, 2022[27]).

Most recently, in September 2022, several private philanthropic foundations and charities pledged to add to the previous USD 5 billion already committed to conservation if other countries promised more funds (Gilbert, 2022[108]), while contributions from the philanthropic sector and other non-governmental actors were strongly encouraged to implement and achieve the Kunming-Montreal Global Biodiversity Framework through the "10 Point Plan for financing biodiversity" (UK, 2022[69]). Ultimately, in January 2023, WEF launched the Giving to Amplify Earth Action (GAEA) supported by more than 45 public, private and

philanthropic (over 27 foundations) partners to help unlock USD 3 trillion annually of financing to tackle climate change and nature conservation [see Box 2.4, (WEF, 2023[109])].

The private sector could become a vital source

Many business and financial organisations both depend on and in turn impact biodiversity (OECD, 2019[110]) and many (such as Apple, L'Oréal or Unilever) have pledged international finance for biodiversity purposes recently (Campaign for Nature, Conservation International, The Nature Conservancy, Wildlife Conservation Society and WWF, 2022[111]). At the same time, there is growing recognition that public funds, including ODF, will be insufficient to reverse biodiversity loss. This is why the international development community aims to increasingly use official interventions to mobilise private finance (CBD, 2020[48]; Berghöfer et al., 2017[84]).

Mobilisation of private finance can contribute to the conservation, restoration, and sustainable use of biodiversity and ecosystem services (financing green). It can also direct financial flows away from projects with a negative impact on biodiversity and ecosystems (greening finance) (World Bank Group, 2020[112]). A supportive enabling environment with the right incentives and regulations, data availability and transparency, acknowledgment of biodiversity as a financial risk, as well as more readily available projects within the investment pipeline, could enhance the mobilisation of resources at scale, in particular for biodiversity objectives [e.g. to finance access and benefit-sharing instruments such as digital sequence information on genetic resources as recently agreed at COP15 (CBD, 2022[113])].

Mobilisation of private finance from public sources can take several forms. The OECD collects data for private finance mobilisation through six financial instruments: credit lines, guarantees, simple co-financing, direct investment in companies and special-purpose vehicles, shares in collective investment vehicles, and syndicated loans. These modalities can also be used to mobilise private finance for biodiversity and ecosystem services (World Bank Group, 2020[112]; Finance for Biodiversity Initiative, 2021[114]).

The report unveils a decade of development finance for biodiversity

Against this backdrop, this report analyses a decade of development finance for biodiversity, which coincides with the period of implementation of the 2011-20 CBD Strategic Plan on Biodiversity and its Aichi Targets. It provides an overview and estimates of biodiversity-related development finance (Box 1.3) from bilateral donors, i.e. OECD DAC members; non-DAC donors and South-South and triangular co-operation providers; multilateral providers; private philanthropic foundations; and private finance mobilised through public finance. The report also builds on previous OECD work in this area, notably *Biodiversity-related Official Development Assistance 2016. Mainstreaming in the energy and mining, infrastructure, manufacturing and processing, and health sectors* (OECD, 2016[115]), *Financing for Development in Support of Biodiversity and Ecosystem Services* (Drutschinin and Ockenden, 2015[91]), and *Biodiversity and development finance: Main trends, 2011-20*, (Casado-Asensio, Blaquier and Sedemund, 2022[116]).

The report also explores funding trends to a range of key areas, including: the main funding priorities in the area of biodiversity; main recipients and regions; the specific situation of SIDS and fragile contexts; trends in marine and terrestrial biodiversity development finance; main sectors targeted by biodiversity-related interventions; an overview of cross-cutting issues, such as climate change, desertification and gender equality; capacity development for biodiversity; and other elements, such as illegal wildlife trade and funding for indigenous peoples and local communities.

Having a better understanding of biodiversity-related development finance flows can build stronger collaboration among development co-operation stakeholders and help donors to be more effective. The report therefore presents existing DAC member frameworks and pledges to guide future work in this area, and opportunities to scale up action and ambition in support of biodiversity objectives. In addition, the

report highlights geographic and thematic shortfalls, as well as other gaps, including knowledge and data limitations, for donors and researchers to consider in future development finance for biodiversity. Together, these elements can help DAC members and other stakeholders enhance their biodiversity-related development finance in the future, and help them work together to strengthen and co-ordinate their efforts in this area. Notably, the report can inform the implementation of the Kunming-Montreal Global Biodiversity Framework, agreed in December 2022 at the CBD COP15. Finally, the information in this report can help establish a baseline from which governments and other stakeholders can track biodiversity development finance trends in the future, thus contributing to the implementation of the *OECD DAC Declaration on a new approach to align development co-operation with the goals of the Paris Agreement on Climate Change* (OECD, 2021[89]). Paragraph 13 of the Declaration states that ‘"We commit to greater accountability and transparency in how we define, account for and report ODA related to climate, biodiversity and the environment”; while paragraph 19 notes that members “will work to embed nature into [their] analyses, policy dialogue and operations to ensure that ODA does no harm to nature.”

The report is structured as follows: Chapter 2 analyses biodiversity-related development finance over 2011-20 from all sources, while Chapter 3 explores biodiversity funding flows by region and country category and for a range of other biodiversity-related themes. Chapter 4 takes a more forward-looking perspective, exploring the opportunities for biodiversity-related development finance to become more strategic, coherent and effective. The report concludes with recommendations targeted at each of the main development co-operation actors to meet the biodiversity challenge and help close the funding gap (Chapter 5).

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2 Trends in development finance for biodiversity, 2011-2020

This chapter analyses development finance for biodiversity over 2011-20, which coincides with the implementation period of the Convention on Biological Diversity's (CBD) Strategic Plan on Biodiversity and its Aichi Targets. It describes the methodology developed specifically for this task and then presents detailed analysis for all the main sources of biodiversity-related official development finance (ODF): bilateral ODF (directly provided by a Development Assistance Committee (DAC) member to recipient countries); multilateral outflows (resources channelled through and by international financial institutions, multilateral or regional development banks, and UN institutions); ODF flows from non-DAC members that report to the OECD; ODA-like international public funding among developing countries (South-South and triangular co-operation, SSTrC); and private philanthropy. Mobilisation of private flows by public interventions are also assessed. As part of the assessment, it explores whether DAC members have met Aichi Target 20 on development finance.

How do we measure development finance for biodiversity in this report?

This chapter provides an overview of trends in biodiversity-related development finance from 2011 to 2020, updating and complementing previous OECD work in this area, notably *Biodiversity-related Official Development Assistance 2016. Mainstreaming in the energy and mining, infrastructure, manufacturing and processing, and health sectors* (OECD, 2016[1]), *Financing for Development in Support of Biodiversity and Ecosystem Services* (Drutschinin and Ockenden, 2015[2]) and *Biodiversity and development finance: Main trends, 2011-20* (Casado-Asensio, Blaquier and Sedemund, 2022[3]). It is based on a comprehensive methodology developed to identify biodiversity-related activities in the OECD Development Assistance Committee (DAC) Creditor Reporting System (CRS) and total official support for sustainable development (TOSSD) databases (Box 2.1).

Development finance for biodiversity can originate from several sources. Official development finance (ODF), which includes official development assitance (ODA) and other official flows (OOF) (see Box 1.3 in Chapter 1), is one of these sources. Development finance can be either bilateral ODF (directly provided by a DAC member to recipient countries) or multilateral outflows (resources channelled through and by international financial institutions, multilateral or regional development banks, and UN institutions). Development finance can also include other sources of ODF: non-DAC members that report to the OECD on their ODF flows; ODA-like international public funding among developing countries (South-South and triangular co-operation, SSTrC); and private flows mobilised by public interventions. Private philanthrophy is also a key source of development finance. This chapter provides estimates of all of these sources of development finance. For further information on how these estimates were produced, see Box 2.1 and Annex A.

Box 2.1. Estimating biodiversity-related development finance

The report uses a variety of data sources. The main source is the OECD DAC Creditor Reporting System (CRS), which collects data on official development assistance (ODA) and other official flows (OOF). The report also draws on the total official support for sustainable development (TOSSD) database.

Since 1998, the DAC has monitored development finance targeting the objectives of the Rio Conventions, including the CBD, through four “Rio markers” (biodiversity, desertification, climate change mitigation and adaptation). Countries and institutions reporting their official development finance to the OECD signal flows to biodiversity-related activities using the biodiversity Rio Marker, as well as through two SDG tags – SDG 14 (marine biodiversity) and SDG 15 (terrestrial biodiversity). The two sets of information are generally reported to the CRS in a coherent manner. When discrepancies appeared, the SDG information was manually reviewed against the Rio Marker methodology and included in the analysis.

For DAC members and countries and institutions reporting on the biodiversity marker, biodiversity-related activities should be screened and marked as (i) targeting the objectives of the CBD as either a principal or significant objective; or (ii) not targeting the objective (the activity has no relation to the marker). Activities marked as “principal” must have biodiversity as fundamental in the design of, or the motivation for, the action. Activities marked “significant” have other primary objectives, but have been formulated or adjusted to help meet biodiversity concerns.

The Rio Markers were designed to track the degree to which members are integrating and mainstreaming environmental considerations into their development co-operation activities, and thus apply to the entirety of an activity reported – not just the finance associated with the biodiversity-specific component of that activity. However, when reporting against quantified international finance goals (such

as the CBD's Aichi Target 20), many DAC members only report their official development finance that targets biodiversity as a "significant" objective as a share of the full finance provided, and estimate this by applying coefficients to reflect the share. There is no agreed definition or common approach for this practice, but 40% is the most common coefficient applied to countries' "significant" flows (Xu and Gualberti, 2022[4]). This is the coefficient used here to calculate progress against Aichi Target 20, together with the full amount for "principal" flows. When it comes to multilateral flows, a 40% coefficient to the flows marked as "significant-like" is also used. For multilateral institutions and non-DAC donors, purpose codes related to biodiversity and a keyword search were also used to gather the information on biodiversity finance.

For more details see Annex A.

Total development finance for biodiversity has increased

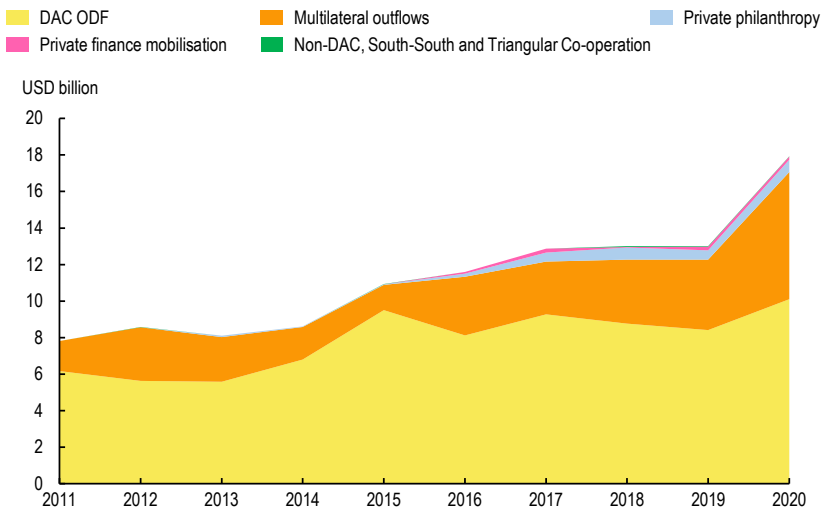
Figure 2.1 shows the full value of all biodiversity-related development finance flows reported to the OECD over 2011-2020. This shows that biodiversity-related development finance from public sources (DAC members, non-DAC, SSTrC and multilateral providers) increased by 119% over 2011-20, rising from USD 7.8 billion to USD 17.1 billion. This increase was largely driven by DAC members, which made up 72% of the total public flows on average over 2011-20, and is mostly DAC members' ODA, which accounts for 99% of total bilateral investments (the remaining 1% being OOF). In turn, multilateral institutions provided 28% of the total over this period. Flows from non-DAC and SSTrC providers make up an additional 0.1% of the total and gained importance after 2017, when most started reporting.

Figure 2.2 applies coefficients to the estimates, which is closer to the approach that many members take when reporting to the CBD on these flows (see Box 2.1 and Annex A for further information). This Figure therefore provides a different scale but similar trends. Public development finance for biodiversity increased by 79% over 2011-20, rising from USD 5.4 billion to USD 9.6 billion. This increase was largely driven by DAC members, which made up 77% of the total public flows on average over 2011-20, with the remaining 23% coming from multilateral institutions. This share increased after 2015, primarily driven by concessional outflows (which represent 61% of total multilateral development finance estimates). Flows from non-DAC and SSTrC providers make up an additional 0.2% of the total.

In both scenarios, private sources of development finance for biodiversity have also increased over time (Figure 2.1 and Figure 2.2). Indeed, private philanthropic flows grew from USD 501 million in 2017 to USD 686 million in 2020 – a growth trajectory that also reflects the increased coverage of these actors' activities in the OECD database since 2016. In turn, private finance flows mobilised by public interventions also increased from USD 94 million in 2016 to reach USD 165 million in 2020 – and represents 21% of all private biodiversity-related development finance in 2020.

Figure 2.1. Overall biodiversity-related development finance has increased

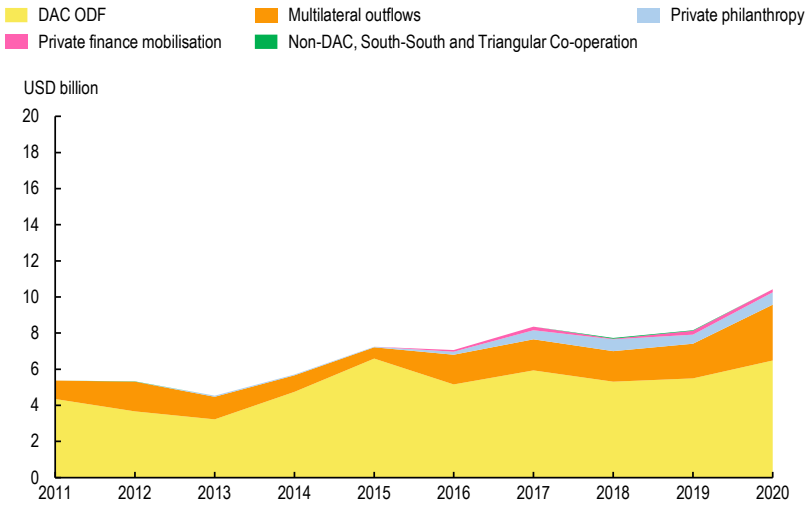
2011-2020, bilateral commitments, USD billion, 2020 prices, full values



Note: The figure shows the full value of all flows reported to the OECD. For details on what is covered under each category see Annex A.
Source: Authors' estimates based on OECD (2022[5]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1; TOSSD (2022[6]) Total Official Support for Sustainable Development, https://www.tossd.org/.

Figure 2.2. Increase of biodiversity-related development finance with application of coefficients

2011-2020, bilateral commitments, USD billion, 2020 prices, estimates with coefficients



Note: The figure shows coefficients applied to the information reported to the OECD. For DAC members, this implies taking the full value of flows marked as principal against the Rio marker flows and using a 40% coefficient for flows marked as significant against the Rio marker, as well as flows identified as contributing to SDGs 14 and 15 (see Box 2.1). Multilateral institutions' activities reflect the full value of their core (principal and "principal-like") activities and apply a coefficient for activities considered as secondary (significant and "significant-like"). Information from private sources and non-DAC and South-South and triangular co-operation reflect full values, hence they represent the same flows in Figure 2.1 and Figure 2.2. For details see Annex A.
Source: Authors' estimates based on OECD (2022[5]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1; TOSSD (2022[6]) Total Official Support for Sustainable Development, https://www.tossd.org/.

Table 2.1 provides a breakdown of public biodiversity-related development finance from DAC members and multilateral institutions by type of flow and considering three scenarios. Our analysis shows that over 2011 to 2020, on average, DAC members' contributions were distributed mainly through ODA, with OOF growing progressively over the decade. Similarly, multilateral institutions' contributions were mostly provided through concessional outflows.

Table 2.1. Official development assistance makes up the bulk of international public biodiversity-related development finance

2011-20 annual average, bilateral and multilateral commitments, USD million, 2020 prices

Breakdown	Lower limit (100% Principal only)	Estimates with coefficients (Principal + 40% Significant)	Upper limit (100% Principal + 100% Significant)
Development Assistance Committee (DAC) members			
Official development assistance (ODA)	3198.7	5036.5	7739.9
Other official finance (OOF)	30.7	58.5	96.8
DAC members total	*3229.5*	*5094.9*	*7836.7*
Multilateral institutions			
Concessional outflows	393.2	944.8	1772.2
Non-concessional outflows	150.1	605.6	1288.9
Multilateral total	*543.4*	*1550.4*	*3061.0*
Total bilateral and multilateral	***3772.8***	***6645.4***	***10897.7***

Note: The table provides information on development finance reported to the OECD, including ranges with full values or with coefficients applied. For DAC members, this implies taking the full value of principal Rio marked flows and using a 40% coefficient for significant biodiversity Rio marked and additional SDGs 14 and 15. Multilateral institutions' activities reflect the full value of their core (principal and "principal-like") activities and apply a 40% coefficient for activities considered as secondary (significant and "significant-like"). For details see Annex A.

Development Assistance Committee (DAC) members are increasing their direct biodiversity-related official development finance (ODF)

DAC members are the largest providers of bilateral development finance for biodiversity. DAC members' biodiversity-related development finance increased from USD 6.2 billion in 2011 to USD 10.1 billion in 2020 (Figure 2.3). This represents an annual average of USD 7.8 billion and 6% of total development finance flows. When accounting for flows based on the use of coefficients, DAC members' biodiversity-related development finance increased from USD 4.4 billion in 2011 to USD 6.5 billion in 2020, a 49% increase (Figure 2.4). These estimates surpass projections for ODA for biodiversity made at the start of the period (Parker et al., 2012[7]; Miller, Agrawal and Roberts, 2013[8]), and are in line with more recent work (CBD, 2020[9]; OECD, 2020[10]; WWF, 2021[11]).

Despite the overall growth, the portion that is Rio-marked with biodiversity as a principal objective decreased between 2011 and 2020 by 22% (i.e. from USD 3.1 to 2.4 billion). While it increased by 48% over 2011-15, it then decreased by 47% over 2015-20. This pattern can mainly be explained by a significant decrease in the contributions from Japan in 2016 compared to 2015, and thereafter by more gradual decreases in contributions by the EU Institutions, France and the USA – all ranked as top biodiversity-related donors.

Looking ahead, it will be important that ODA funding for biodiversity with a principal objective grows once again as these investments represent core biodiversity spending. Further work will also be needed to address the underlying pressures on biodiversity (e.g. by ensuring the sustainable use of natural resources, and mainstreaming biodiversity across sectors). Such core investments need to remain constant over time to ensure their impacts are sustained.

Figure 2.3. Overall increases in Development Assistance Committee (DAC) member biodiversity finance mask a decline in funding to biodiversity as the principal focus

2011-2020, bilateral commitments, USD billion, 2020 prices, full values

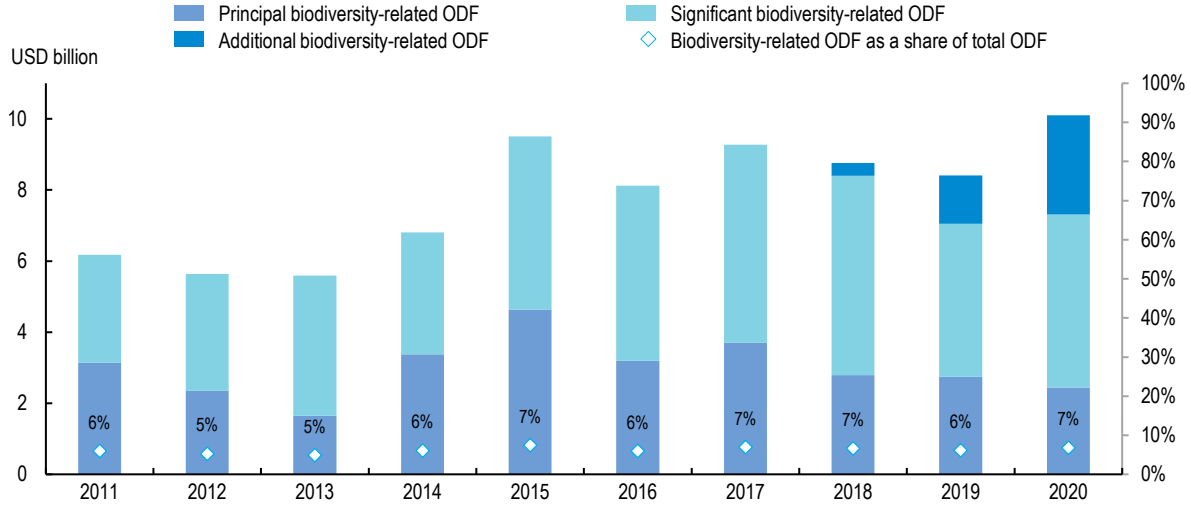
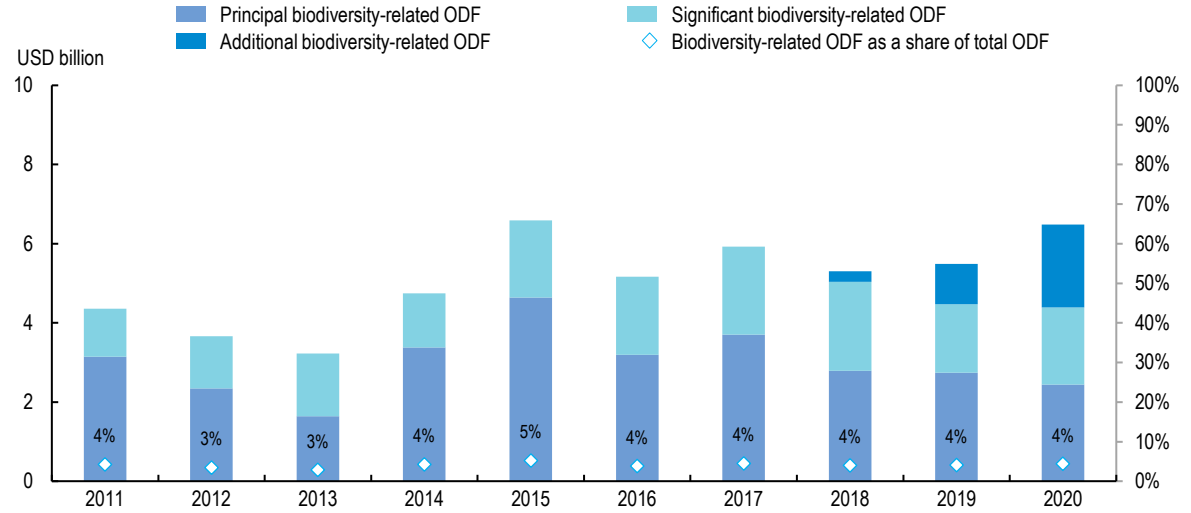


Figure 2.4. Principal biodiversity-related development has fallen since 2015

2011-2020, bilateral commitments, USD billion, 2020 prices, estimates with coefficients applied



Note: The figure provides information on DAC member development finance based on estimates with coefficients, reflecting 100% principal Rio-marked flows and applying a 40% coefficient for significant biodiversity Rio-marked finance and for additional finance from activities reported against SDGs 14 and 15.

Other trends emerge from the analysis:

- The proportion of total biodiversity ODF targeting other objectives, i.e. activities marked with biodiversity as a significant objective is increasing over time in both scenarios. This slight increase reflects greater awareness of, or interest in, integrating biodiversity-related aspects across development co-operation activities and may reflect growing mainstreaming of biodiversity.
- These estimates could change (potentially correcting the downward trend in activities marked with a principal objective) if all or part of the relevant SDG-tagged information were to be reported against the Rio Marker (SDG-tagged information was captured in this analysis as additional contributions). This calls for more consistent reporting by DAC members in the future.
- The overall share of biodiversity-related ODF in total DAC ODF has remained relatively stable over time, at 4% to 6% depending on the methodology applied. However, the analysis also finds that the vast majority of ODF is invested in sectors that are neutral or not related to biodiversity (e.g. government, policies and regulations, disaster risk reduction, health, other economic infrastructure) – and potentially in areas that are not supporting biodiversity. This trend reveals the potential scope for increasing biodiversity-related ODF and for donors to explore the implications of being nature positive in their interventions.

Development Assistance Committee (DAC) members have delivered on their Aichi development finance targets

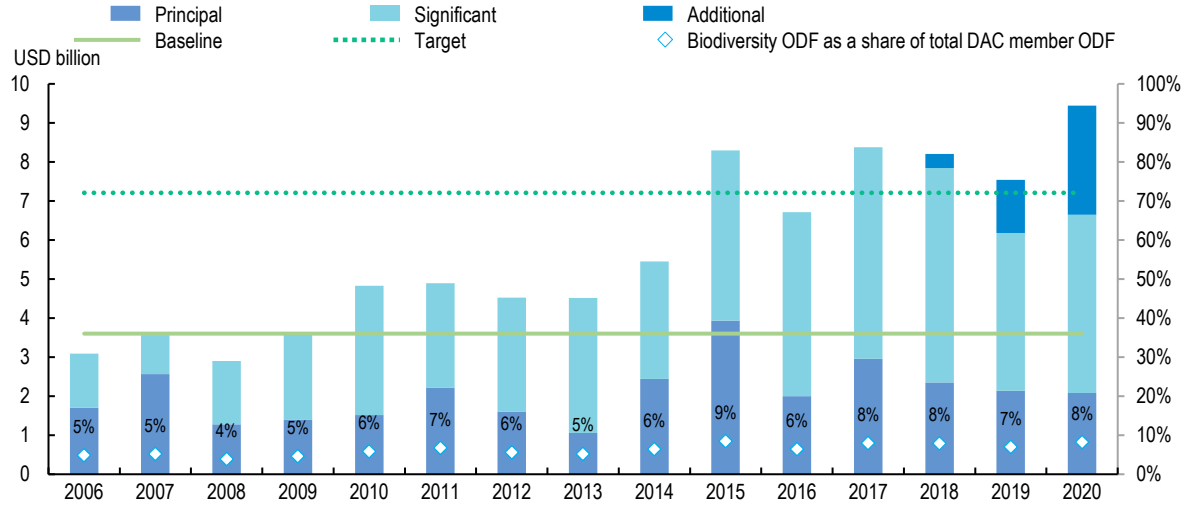
Article 20 of the CBD specifies the role of developed country Parties in providing financial resources to support developing countries, namely to "provide new and additional financial resources to enable developing country Parties to meet the agreed full incremental costs to them of implementing measures which fulfil the obligations of this Convention" (CBD, 2006[12]). This role has been progressively refined (CBD, 2020[13]):

- In 2010, Parties to the CBD at COP10 in Japan committed to scaling-up their financing to support the Strategic Plan 2011-2020 and its Aichi Biodiversity Targets by 2020 (CBD, 2010[14]). In particular, Aichi Target 20 on development finance calls for an increase in development finance resources.
- In 2012, at COP11 in India, Parties agreed to set a "target on international financial flows" and identified actions to increase mobilisation of financial resources from all sources (CBD, 2012[15]).
- COP12 in Korea in 2014 adopted a commitment to double total biodiversity-related international financial resource flows to developing countries by 2015 – especially LDCs and SIDS, as well as countries with economies in transition – using average annual biodiversity funding over 2006-10 as a baseline, and to at least maintain this level until 2020 (CBD, 2014[16]).
- At COP13 in Mexico this commitment was extended to CBD Parties, and other governments and donors in a position to do so, through Decision COP XIII/20 (CBD, 2016[17]) and reiterated at COP14 in Egypt (CBD, 2018[18]).

Our analysis shows that collectively the DAC members that are Parties to the CBD (i.e. all except the US) have met the Aichi Biodiversity target on biodiversity-related development finance. In 2015, ODF for biodiversity from this group had doubled compared to the 2006-10 baseline, and then remained above that level over 2016-20 (Figure 2.5 and Figure 2.6)[1]. This finding holds under two scenarios: counting all biodiversity-related development finance from DAC member Parties to the CBD Figure 2.5; and applying a coefficient to those estimates that have been Rio-marked with biodiversity as a significant objective and those marked as targeting SDG 14 and/or 15 Figure 2.6. These conclusions also hold under other scenarios, for example if the United States is included in the analysis, even though it is not a Party to the CBD; or if SDG-marked flows are split into 'principal' (when only SDG 14 and/or 15 were tagged in the reporting) and 'significant' (when more than one SDG was tagged by a member) activities.

Figure 2.5. Development Assistance Committee (DAC) members have met Aichi Target 20 on development finance

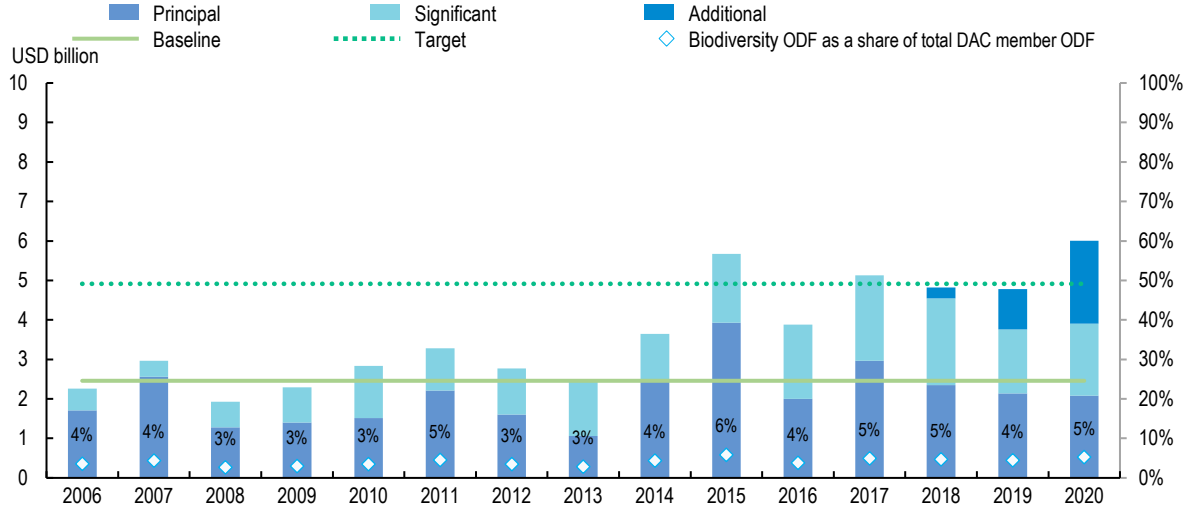
2006-2020, bilateral commitments, USD billion, 2020 prices, full values



Note: The figure shows the full value of DAC members' activities reported to the OECD. The analysis covers all DAC members that are Parties to the CBD. It therefore excludes the United States. ODF= official development finance.

Figure 2.6. Development Assistance Committee (DAC) members have met the Aichi Target 20 even with coefficients applied to a portion of their development finance flows

2006-2020, bilateral commitments, USD billion, 2020 prices, estimates with coefficients



Note: The figure shows coefficients applied to the information reported to the OECD. This implies taking the full value of Rio-marked flows reported as having biodiversity as the principal goal, and applying a 40% coefficient to flows reported as having biodiversity as a significant goal, as well as flows marked as targeting SDGs 14 and 15. The analysis covers all DAC members that are Parties to the CBD. It therefore excludes the United States. ODF= official development finance.

Looking beyond these collective trends (Table 2.2), the coefficient approach shows that six DAC members met the commitment to double ODF for biodiversity by 2015 (France, Germany, Luxembourg, Norway, Sweden and the United Kingdom). An additional seven DAC members reached the target over 2016-20

(Australia, EU, Italy, Korea, New Zealand, Portugal and Switzerland). In addition, four DAC members increased, but did not double, their biodiversity-related ODF in 2016-20 compared to the 2006-10 baseline (Austria, Belgium, Canada and Ireland) – although growth rates vary among the countries in this group (e.g. from 99% growth by Canada to 9% growth by Austria). Other DAC members reduced their bilateral biodiversity-related funding commitment in 2016-20 compared to the 2006-10 baseline. In this group, the most significant decreases were by Greece and Finland (92% and 76% decreases, respectively).

Notwithstanding this trend, it is important to note that the DAC data included here refers to direct bilateral ODF for biodiversity only. Allocations by some DAC members are therefore partially reflected, given that many use the multilateral system, such as the GEF, to engage in biodiversity-type of work. Such core contributions to the multilateral system by DAC members are included within the multilateral institutions total contributions, to avoid double counting.

Table 2.2. How does each Development Assistance Committee (DAC) member perform against Aichi Target 20 on development finance?

2006-2020, commitments, USD million, 2020 prices, estimates with coefficients

USD Million	Biodiversity-related ODF			
Countries	**Biodiversity-related finance 2006-10 (Baseline)**	**2015**	**2016-20**	**Evolution over the period**
Australia	74.06	111.05	170.14	Met over 2016-20
Austria	15.84	10.37	17.32	Increased over 2011-20
Belgium	46.08	89.28	60.14	Increased over 2011-20
Canada	38.04	25.45	75.82	Increased over 2011-20
Czech Republic*	0.00	1.92	3.20	Met by 2015
Denmark	60.43	64.91	22.21	Decreased over 2011-20
EU Institutions	244.13	396.62	986.95	Met over 2016-20
Finland	35.98	9.94	8.55	Decreased over 2011-20
France	126.85	1108.68	963.82	Met by 2015
Germany	251.19	987.08	1302.27	Met by 2015
Greece	2.14	0.20	0.16	Decreased over 2011-20
Hungary*	0.00	0.00	2.25	Increased over 2011-20
Iceland*	0.00	3.07	2.73	Met by 2015
Ireland	13.75	12.11	21.83	Increased over 2011-20
Italy	25.05	38.26	96.43	Met over 2016-20
Japan	1124.70	2051.28	355.31	Decreased over 2011-20
Korea	8.36	13.96	44.79	Met over 2016-20
Luxembourg	0.53	5.35	3.74	Met in 2015
Netherlands	87.74	93.29	66.05	Increased over 2011-20
New Zealand	5.02	3.42	11.61	Met over 2016-20
Norway	100.89	240.78	217.78	Met by 2015
Poland*	0.00	0.98	9.30	Met in 2015
Portugal	1.58	0.77	3.54	Met over 2016-20
Slovak Republic*	0.00	0.02	0.19	Met by 2015
Slovenia*	0.00	0.02	0.11	Met by 2015
Spain	103.01	17.59	29.24	Decreased over 2011-20
Sweden	21.04	128.48	175.51	Met by 2015
Switzerland	31.88	30.56	93.01	Met over 2016-20
United Kingdom	37.89	230.47	177.34	Met by 2015
Total DAC members Party to the CBD	**2456.18**	**5675.88**	**4921.33**	**Met by 2015**

Note: Starred countries (Czech Republic, Hungary, Iceland, Poland, Slovak Republic, Slovenia), refer to DAC members that are CBD Parties that did not report to the OECD on the Rio Markers during the 2006-10 period. As such, they do not have an Aichi baseline. Furthermore, the EU, Hungary, Korea, Poland and Slovak Republic are DAC members, but are not included in the CBD's list of developed countries. However, since these countries are Parties to the CBD, they were included in the analysis.
Source: OECD (2022[5]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1.

Biodiversity-related official development finance (ODF) is primarily driven by five Development Assistance Committee (DAC) members

Building upon the previous discussion, Figure 2.7 and Figure 2.8 rank the top DAC donors according to their biodiversity-related ODF. The main DAC donors over 2011-20 were Germany, France, EU, United States and Japan, independent of the scenario used, which together accounted for at least 70% of total biodiversity-related ODF. Most DAC member ODF is driven by ODA investments, with OOF being a relevant share of the biodiversity-related investments in Austria and Finland (10% and 9%, respectively). The EU and their DAC member states, taken together, are the major donors for biodiversity worldwide (accounting for 68% of total biodiversity-related ODF), although here too, activities are primarily funded by only a few EU members.

Figure 2.7. A handful of donors provides the bulk of biodiversity-related development finance

2011-2020, bilateral commitments, USD million, 2020 prices, full values

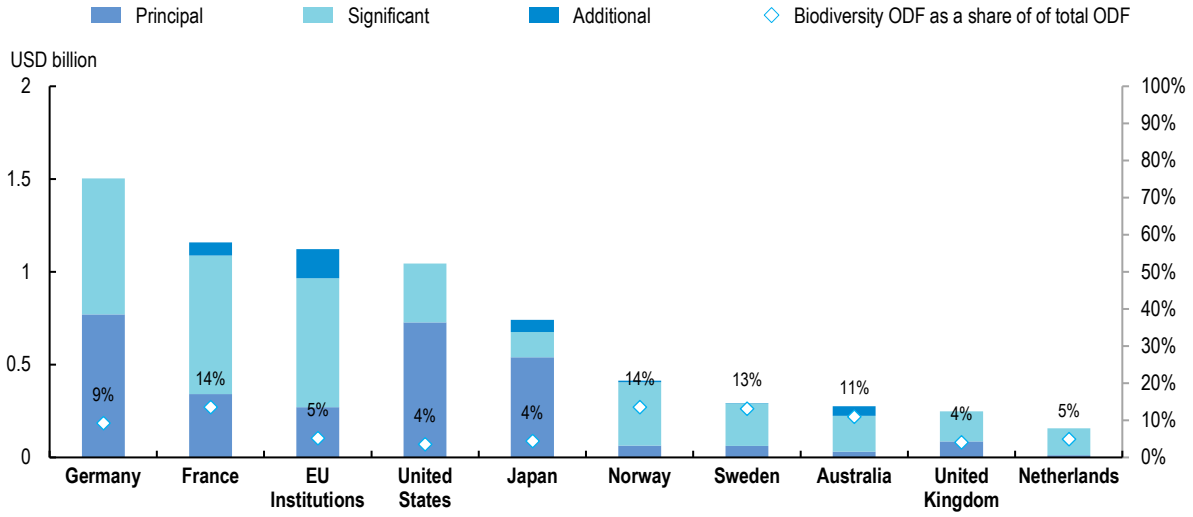
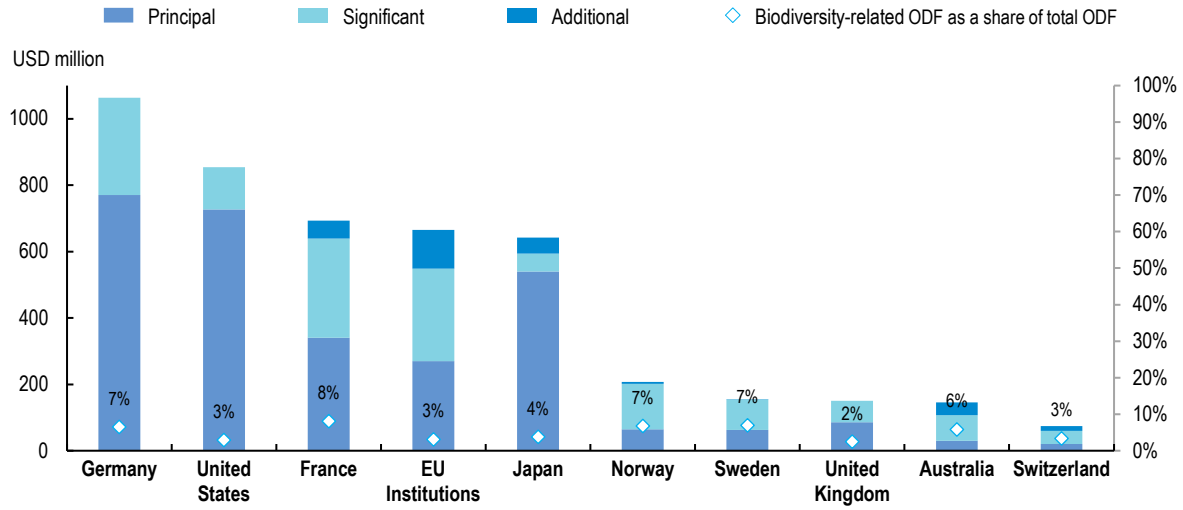


Figure 2.8. Even with coefficients applied to a portion of their development finance flows, the top providers of biodiversity-related development finance are the same

2011-2020, bilateral commitments, USD million, 2020 prices, estimates with coefficients



Note: The figure shows coefficients applied to the information reported to the OECD. This implies taking the full value of Rio-marked flows reported as having biodiversity as the principal goal, and applying a 40% coefficient to flows reported as having biodiversity as a significant goal, as well as flows marked as targeting SDGs 14 and 15.

In relative terms, biodiversity is most important in the programmes of Iceland, France and Italy, where estimates show that it represents 10%, 8% and 8% of their ODF activities, respectively, followed by Germany, Norway and Sweden, with 7%. These donors are primarily investing in biodiversity protection, agriculture and fisheries, sustainable use of marine and coastal resources, nature-based solutions, the conservation of forests and sustainable water resource management. Norway, for example, focuses its interventions on the forestry sector through its International Climate and Forest Initiative, and is in fact the largest REDD+ donor, having bilateral agreements with several partner countries, including Brazil (Hoover El Rashidy, 2021[19]), Peru, Guyana, Indonesia and Tanzania. Norway also has other joint agreements, such as a partnership with the UK – another big funder of forestry-related activities – to support the Congo Basin Forest Fund; and supports the World Bank's Forest Carbon Partnership Facility, the Forest Investment Program and the Bio Carbon Fund (Angelsen, 2016[20]).

Multilateral development providers are key biodiversity players

Multilateral providers, such as the multilateral development banks and multilateral funds, are important contributors to biodiversity (see Figure 2.9, and Annex A for a complete list of multilateral institutions considered in this analysis) and their biodiversity-related finance has collectively increased over 2011-20.[2] However, reporting on biodiversity-related activities by multilateral institutions is not yet systematic, comprehensive or consistent across years – especially compared to their reporting on climate-related activities (Multilateral Development Banks, 2022[21]).

While some institutions apply the biodiversity Rio Marker, other institutions report against Sustainable Development Goals 14 and 15 to identify their biodiversity-related activities, or provide an indication of these investments through the use of purpose codes related to biodiversity (see Annex A). Some institutions also use a combination of these approaches. However, many institutions that report to the OECD do not signal their biodiversity-related activities through any of these means. This makes the overall

volumes of multilateral development finance targeting biodiversity difficult to identify. Given these limitations, a specific methodology was developed for this report to obtain a comprehensive estimate of multilateral institutions' biodiversity-related outflows. It identifies and disaggregates activities into principal and "principal-like", as well as significant and "significant-like" objectives (described in Annex A).

Using this methodology, our analysis finds that multilateral outflows for biodiversity-related activities increased over 2011-20, regardless of whether a full value analysis (Figure 2.9) or an analysis applying coefficients was conducted (Figure 2.10). The full analysis estimates that multilateral outflows for biodiversity-related activities increased from USD 1.6 billion in 2011 to USD 7 billion in 2020 (quadrupling over this period and representing, on average, 3% of total multilateral outflows). The second scenario – estimates applying coefficients to the significant and significant-like activities – sees the increase go from USD 1 billion in 2011 to USD 3.1 billion in 2020 (tripling over this period). However, these flows are relatively low, especially when compared to multilateral public finance for climate change, which increased from USD 15.5 billion in 2013 to USD 36.9 billion in 2020 (OECD, 2022[22]).

In the analysis of full flows (Figure 2.10), there are two noticeable spikes in the growth trend, namely over 2015-16 and 2019-20, reflecting a 163% increase (from USD 0.7 to 1.6 billion) and a 60% increase (from USD 1.93 to 3.1 billion), respectively. In 2016 the spike can be explained by the significantly high contributions from two multilateral development banks (representing 47% of total biodiversity-related multilateral outflows), while the spike in 2020 is driven by two other multilateral development banks (representing 45%).

Importantly, and as is the case for other areas of multilateral development finance, the main instruments used are loans (61%) followed by grants (38%) and equity (0.2%). This contrasts with bilateral shares (74% grants, 25% loans, and 1% equity), and underlines the complementary role of multilateral actors in the international development co-operation system (MOPAN, 2021[23]), including for biodiversity.

Figure 2.9. Multilateral institutions' biodiversity-related development finance has increased

2011-2020, multilateral commitments, USD billion, 2020 prices, full values

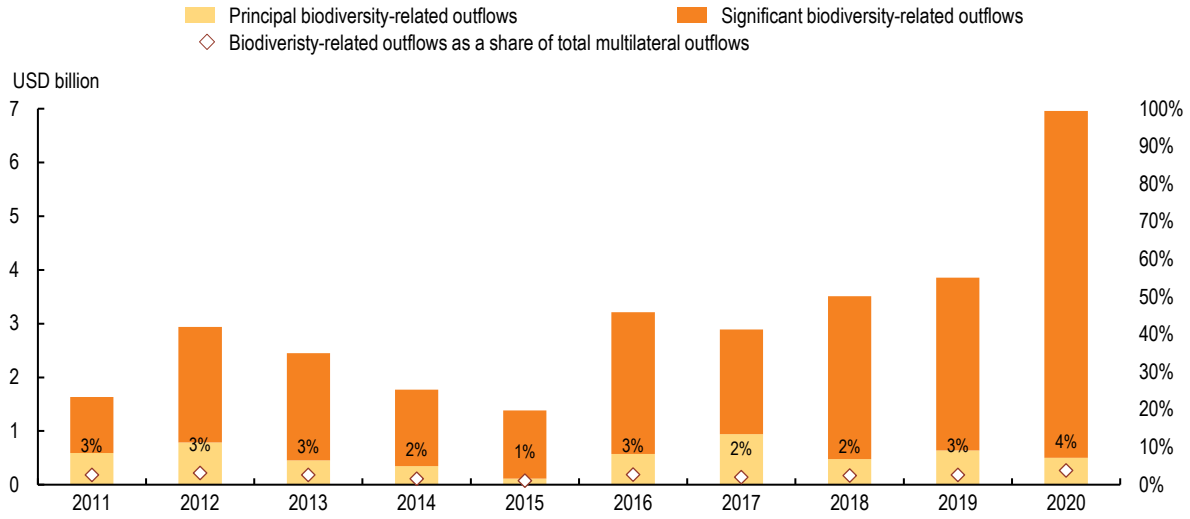
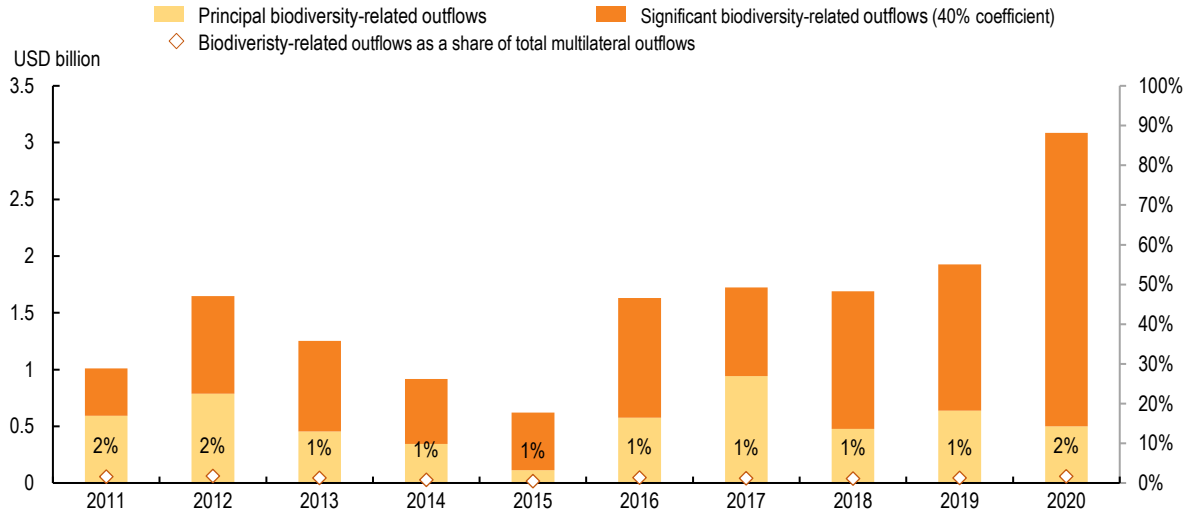


Figure 2.10. The increase in multilateral flows holds true when coefficients are applied

2011-2020, multilateral commitments, USD billion, 2020 prices, estimates with coefficients



Note: Estimates for multilateral institutions' activities reflect 100% of flows for activities with biodiversity as a core (principal and "principal-like") objective and apply a 40% coefficient to activities for biodiversity considered as having a secondary (significant and "significant-like") objective. Multilateral flows include principal, 'principal-like', significant and 'significant-like' data from a variety of sources, including Rio marker data on biodiversity, purpose code data, SDGs 14 and 15 data, and data captured through a targeted keywords search. For more information on the methodology used to obtain and analyse multilateral institutions' data, please consult Annex A. Commitments that were not classified by aid type or co-operation modalities were not included in this analysis.

In relative terms, however, the share of biodiversity-related development finance has remained stable over 2011-20. Based on these shares, and compared with bilateral providers, multilateral institutions have scope to increase their biodiversity focus and flows further and to continue mainstreaming biodiversity across activities. This would be in line with the *Multilateral Development Banks' Joint Statement on Nature, People and Planet* (adopted during UNFCCC COP26, in Glasgow), which commits the multilateral development banks (MDBs) to mainstream nature into their policies, investments and operations, including through defining and making "nature-positive" investments (Multilateral Development Banks, 2021[24]).

While the portion of principal and "principal-like" flows appears to be stable over time, flows to significant and "significant-like" activities have increased, showing that biodiversity-related concerns are increasingly mainstreamed across activities. Even so, these flows are still low, suggesting there is an opportunity to reap low-hanging fruits and accelerate biodiversity mainstreaming. Given the lack of consistent data on biodiversity spending by multilateral institutions, this report recommends that multilateral institutions enhance their transparency by reporting on their biodiversity-related activities to the OECD CRS, ideally using the Rio Markers, which are currently the most comprehensive source of comparable data on development finance for biodiversity. For institutions already reporting to the OECD on their biodiversity-related activities, there is room to improve the quality of this reporting (e.g. by ensuring that activities reported with a purpose code related to biodiversity are identified with the marker). These recommendations also apply to other policy areas, as noted in the latest OECD Multilateral Development Finance report (OECD, 2022[25]) and are in line with the monitoring framework and resource mobilisation strategy of the Kunming-Montreal Global Biodiversity Framework (CBD, 2022[26]; CBD, 2022[27]).

Non- Development Assistance Committee (DAC) bilateral providers are making a small but increasing contribution

Funding from non-DAC providers for biodiversity-related activities amounted to USD 28 million annually on average over 2018-20, the years when most information on these providers is included in the OECD database (Figure 2.12). These trends are driven mainly by:

- Saudi Arabia (which provided USD 18.5 million on average over 2018-20, for agricultural and fishing activities)
- The United Arab Emirates (USD 3 million on average over 2011-20, peaking in 2018 with a contribution of USD 10.1 million, for wildlife conservation and protection of endangered species)
- Kazakhstan (USD 3.5 million on average over 2018-20, for protection of marine environment and contributions to biodiversity-related international organisations).

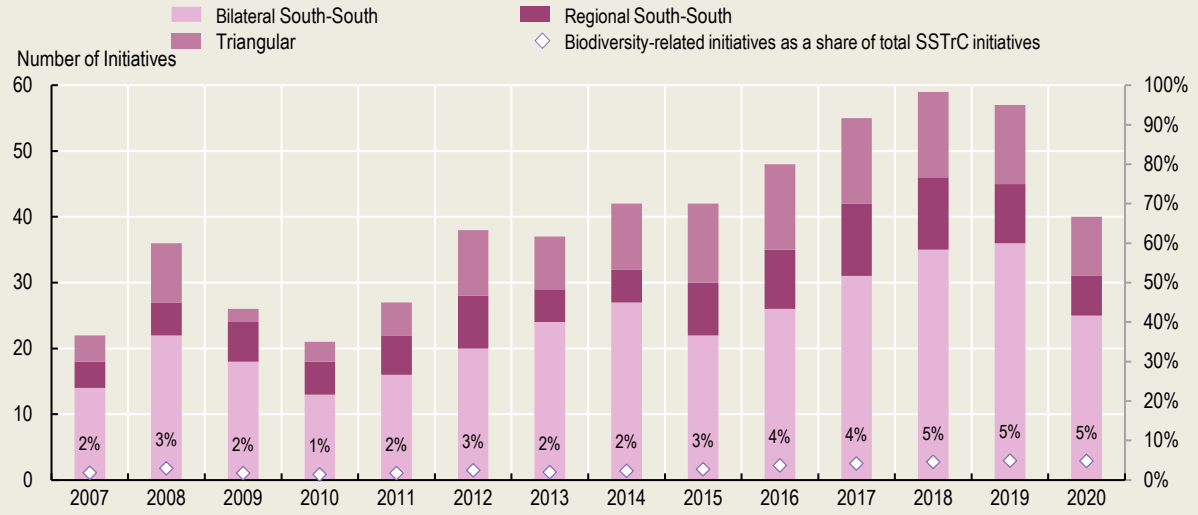
The contribution of non-DAC EU Member States is also growing over time, mainly driven by Estonia. South-South and triangular co-operation (SSTrC) providers, such as Brazil, Chile and Indonesia, are also reporting on their total official support for sustainable development (TOSSD; see Annex C) with biodiversity-related objectives. Data available for 2019-20 indicate that it increased by 46% in this period. South-South and triangular co-operation has been particularly important in the context of Latin America and the Caribbean, with growing trends and important lessons learnt across the partners engaged, as can be seen from data provided for this report by the Ibero-American General Secretariat (Box 2.2). These modalities help transfer local biodiversity-related solutions within regional contexts, achieve global biodiversity goals across regions, help mainstream biodiversity, and foster strategic biodiversity-related capacity development (OECD, 2019[28]).

Box 2.2. Biodiversity in Ibero-American South-South and triangular co-operation

Since 2007, the Ibero-American countries (which include countries in the Americas and the Iberian Peninsula where Spanish or Portuguese are predominant languages), together with the Ibero-American General Secretariat (SEGIB) and the Ibero-American Programme for the Strengthening of South-South Co-operation, have been collecting data on South-South and triangular co-operation initiatives through an online data platform, the Ibero-American Integrated Data System on South-South and triangular co-operation (SIDICSS). This database has information on almost 10 000 co-operation actions, projects and programmes in Ibero-America. Although no specific marker on biodiversity exists in this database, the SEGIB has identified for this report initiatives with a primary biodiversity-related objective and those that consider biodiversity as a secondary objective.

The SEGIB has uncovered 269 initiatives over 2006-20 with a primary focus on biodiversity and 662 with a secondary focus, constituting 2.9% and 7% of the total, respectively. SSTrC initiatives with a focus on biodiversity have been growing steadily since 2013 (Figure 2.11), mainly driven by bilateral South-South co-operation. This accounts for most initiatives and has seen primary biodiversity-related objectives grow from 1.1% in 2010 to 4.1% in 2019 and again in 2020. The fall in 2020 is due to the COVID-19 pandemic, although the total remained stable and close to 5% (SIDICSS, 2022[29]).

Figure 2.11. Biodiversity is a growing share of South-South and triangular initiatives in Ibero-America



Note: The SEGIB developed a methodology to identify primary biodiversity-related activities using the SIDICSS database. The methodology builds upon a keyword search of this database using biodiversity-specific concepts and a list developed by the OECD, adapting this list to the Ibero-American context and searching for keywords in Spanish and Portuguese. These data were drawn from the initiatives under the environmental dimension (Environment and Disaster Management sectors), those aimed at SDGs 14, 15, 7 and 12 (after 2015), as well as other activities identified through the keyword list.
Source: SIDICSS (2022[29]), Sistema Integrado de Datos de Iberoamérica sobre cooperación Sur-Sur y Triangular, https://www.sidicss.org/sidicss/.

The percentage of initiatives with a primary focus on biodiversity is higher for both the triangular and regional South-South co-operation modalities (over 5%), while the bilateral modality was used for most initiatives (64%). A third of the biodiversity initiatives in all three modalities of co-operation focus on protected areas, while another fifth target forest protection. However, many also touch upon other issues, such as marine or mountain ecosystems, threatened species, controlling illegal fishing, genetic diversity, and protecting coral reefs.

Among the activities with a secondary biodiversity-related objective, countries aim at improving general environmental protection (e.g. planning and management, data, evaluation and control, education and research); reducing pollution (e.g. water, soil, air, hazardous pollutants, waste); integrated management of watersheds and water resources; the sustainable use of natural resources and sustainable production (e.g. agriculture, industry, aquaculture); as well as issues related to indigenous peoples. The initiatives that are included in these themes are also frequent in the Triangular and regional South-South modalities.

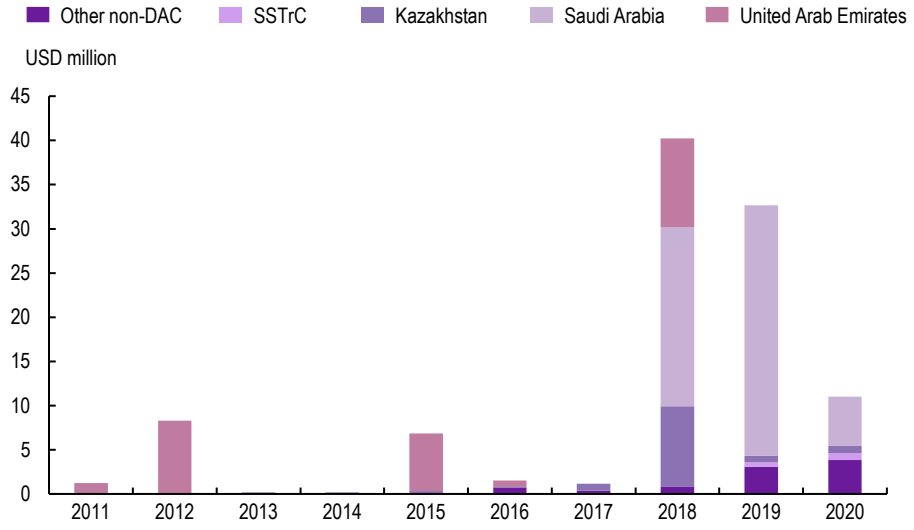
Behind these numbers are many examples of strengthened capacities (SIDICSS, 2022[29]):

- Since 2016 a triangular co-operation project has seen Brazil and Germany support the development of Ecuador's National Biodiversity Institute (INABIO). The objective is to strengthen INABIO's capacities in knowledge management in science, technology and innovation, and thus improve decision making. Among other things, work is being done on a biological database that systematises information on conservation and sustainable use of biodiversity and enables data modelling.

- A bilateral South-South co-operation project under the Mexico-Chile Mixed Fund over 2017-21 aimed to transfer of knowledge for institutional strengthening in the context of climate change and in the framework of the creation of Chile's Service of Biodiversity and Protected Areas. This sought to improve the application of biodiversity conservation policies in both countries, and to reduce the vulnerability of ecosystems and their services in a context of climate change and sustainable development. Among its results are the consolidation of the Biodiversity Information and Monitoring System and the creation of a "Biodiversity Conservation Barometer".
- The "Development of capacities in management and comprehensive conservation of biodiversity in the Central American Commission region" is a regional South-South co-operation project in existence since 2019. It is carried out by the Executive Secretariat of the Central American Commission for the Environment and Development and foresees the construction of a regional information platform for the comprehensive management and conservation of biodiversity, along with learning through pilot projects, and the preparation of proposals for implementing regional and national policies, as well as developing capacity and human resources.

Figure 2.12. Biodiversity-related development finance beyond the Development Assistance Committee (DAC)

2011-2020, commitments, USD million, 2020 prices



Note: Non-DAC countries include Saudi Arabia, United Arab Emirates, Kazakhstan, Republic of Türkiye, Estonia, Azerbaijan, Lithuania, Romania, Croatia, Latvia, Cyprus[3] and Kuwait. These flows are recorded in the CRS. South-South and triangular co-operation countries (SSTrC) include Brazil, Chile, Costa Rica and Indonesia, whose flows were reported through the total official support for sustainable development (TOSSD) framework.
Source: OECD (2022[5]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1; TOSSD (2022[6]) Total Official Support for Sustainable Development, https://www.tossd.org/.

The report recommends that more countries that provide development finance report to the OECD on their biodiversity-related ODF, and that they also report their biodiversity-related South-South and triangular co-operation through the TOSSD database. The OECD is supporting these economies with statistical capacity development to improve their reporting, including on the use of the Rio Markers. A recent example is the support provided to Qatar, which is increasingly engaging in biodiversity-related work and that, by reporting

on these flows to the OECD, could help provide visibility to the country's efforts, as well as enhance the global picture of biodiversity-related development finance (Box 2.3).

Box 2.3. Recent biodiversity-related development finance trends in Qatar

Combatting climate change, protecting the environment, and supporting sustainable development are at the forefront of Qatar's priorities. Striking the balance between development and the protection of the natural environment is a key pillar of Qatar's National Vision 2030. Qatar has created a dedicated Ministry of Environment and Climate Change, and conserving, restoring, and protecting biodiversity for healthy and resilient natural ecosystems is one of five key priorities of its National Environment and Climate Change Strategy. As per 2022, protected land and marine ecosystems cover 29.8% of Qatar's territory. Qatar is a Party to the CBD and the Cartagena and Nagoya Protocols. Qatar was also a driving force behind the creation of the Global Dryland Alliance and is a member of the Group of Friends on Desertification, Land Degradation and Drought; it is a founding member of the Global Green Growth Institute which supports Qatar also in meeting its biodiversity targets.

Numerous good practice examples exist on how Qatar contributes to biodiversity, for instance in the field of sustaining and preserving marine ecosystems. These include a comprehensive coral management program with artificial reef deployment and coral farming with over 10,000 corals produced and out-planted so far, a hawksbill turtle conservation initiative that released over 30,000 baby turtles over the past five years, or measures to protect mangrove coastal areas, whale sharks, and dugongs. Over the past three years, Qatar increased the areas of mangroves along its shores from 9 km to 14 km. Qatar also has taken steps to protect and create wildlife habitats for the over 300 types of migratory birds flocking over the country.

In addition, Qatar supports global efforts to promote sustainability through its development co-operation. For example, during the Climate Action Summit in 2019, His Highness the Emir of Qatar announced a contribution of USD 100 million to support SIDS and LDCs to address climate change and environmental challenges. The pledge is being implemented by the Qatar Fund for Development (QFFD) and support is being provided to multilateral climate change funds to projects that foster, inter alia, ecosystem-based approaches.

Qatar has been a Participant in the DAC since 2016. Since 2019, the QFFD, acting on behalf of Qatar, has reported the state's ODA to the OECD and, since 2020, it is also reporting on TOSSD. Several initiatives have been organised with the OECD to start capturing Qatar's efforts in the field of biodiversity, notably by reporting through the Rio Markers.

A growing number of philanthropies are contributing to biodiversity goals

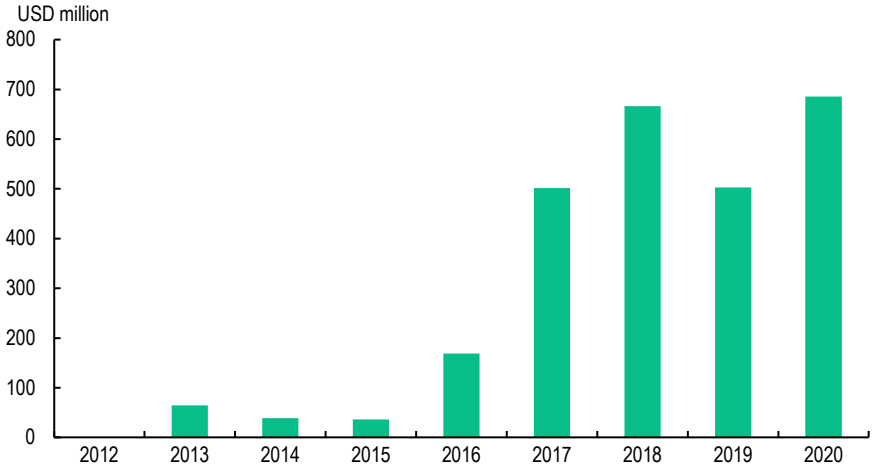
Philanthropic flows are still modest in volume compared to total biodiversity-related ODF, but in key sectors such as general environment protection, agriculture and fisheries, they are significant. Private philanthropic institutions are investing more and more in biodiversity-related areas, providing USD 501.4 million in 2017 and USD 685.6 million in 2020 (an increase of 37%) (Figure 2.13).

The sources of philanthropic contributions for biodiversity are highly concentrated. Of the 36 foundations included in the OECD database that reported on biodiversity-related activities, the Bezos Earth Fund, the Dutch Postcode Lottery, the David and Lucile Packard Foundation and the Gordon and Betty Moore Foundation were the most significant donors, providing 45% of the total biodiversity-related philanthropic giving during 2017-20, while 78% was provided by only 10 foundations (Figure 2.14). Aside from these private providers, the Arcadia Fund, Arcus Foundation and MAVA Foundation show a strong focus on

biodiversity, allocating more than one-third of their annual grant making to conservation of nature and related aspects. Moreover, based on its first commitments in 2020, the Bezos Earth Fund is likely to continue having a key role in the future too. Box 2.4 provides examples of the evolving participation of private philanthropies in the biodiversity-related area through innovative financial mechanisms and partnerships.

Figure 2.13. Private philanthropy biodiversity-related finance is on the increase

2012-2020, commitments, USD million, 2020 prices

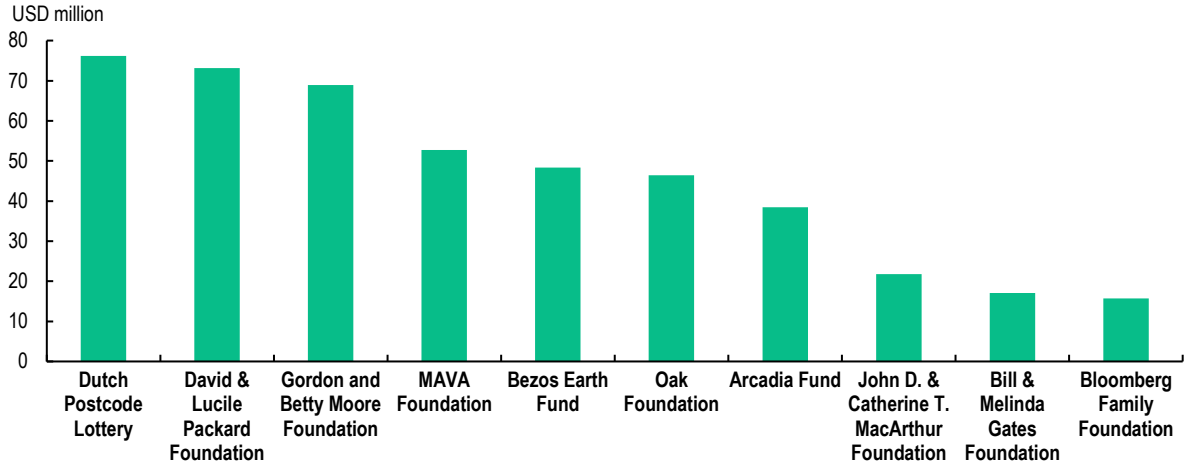


Note: Out of the 45 foundations that reported to the OECD, 36 did so for biodiversity-related activities.
Source: OECD (2022[5]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1.

Philanthropists favour investing in middle-income economies (75% of the total), such as Indonesia, Brazil, India, Peru and Kenya (together accounting for 14% of the total). The remaining 25% of the country-allocable funding targeted LDCs. In addition, almost all philanthropic contributions (74%) were implemented through NGOs and civil society (such as WWF, Climate Works Foundation, The Nature Conservancy, or Fauna and Flora International), followed by academia or research institutes (17%).

Figure 2.14. Ten foundations account for the bulk of biodiversity-related finance

2017-2020 annual average, commitments, USD million, 2020 prices



Note: Finance provided by Bezos Earth Fund was based on 2020 due to data availability.
Source: OECD (2022[5]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1.

Box 2.4. Private philanthropy's role in the biodiversity area is evolving

The Giving to Amplify Earth Action (GAEA) is a recently initiative launched by WEF supported by more than 45 philanthropic (e.g. Bezos Earth Fund, IKEA Foundation, Rockefeller Foundation, Children's Investment Fund Foundation, Gordon and Betty Moore Foundation, Open Society Foundations), public (e.g. Cambridge Institute for Sustainability Leadership, Ocean14, Stanford University Center for Ocean Solutions, UNEP-WCMC) and private sector partners (WEF, 2023[30]). GAEA aims to fund new and existing public, private and philanthropic partnerships (PPPPs) to help unlock USD 3 trillion annually to reach net zero, reduce nature loss and restore biodiversity by 2050. This initiative aims to be a platform to convene stakeholders, including companies, family offices, individuals and philanthropists, and amplify action at scale for climate and nature conservation by building and replicating existing successful approaches (e.g. Seychelles' USD 13 million blue bond and USD 22 million debt-to-nature swap for funding the creation of 13 marine protected areas).

In particular, the Government of Seychelles' initiative is the world's first ocean debt conversion, resulting in a payment of a foreign debt in exchange for in-country financing for long-term conservation and commitment to reach its goal to protect 30 percent of its ocean (The Nature Conservancy, 2020[31]). The ground-breaking debt conversion deal was co-designed with The Nature Conservancy (TNC), and the financial transaction was facilitated with the support of private foundations (e.g. the China Global Conservation Fund of TNC, Oak Foundation, Leonardo DiCaprio Foundation and Waitt Foundation) as well as public government collaborators (e.g. Belgium, France, Italy, South Africa, and the United Kingdom) and multilateral institutions (e.g. United Nations Development Program (UNDP), Global Environment Facility (GEF), and Global Island Partnership). Moreover, the creation of Seychelles' Marine Spatial Plan [SMSP (Seymsp, n.d.[32])] was critical to the success of the initiative, with planning, science and facilitation provided by the TNC in partnership with the Government of Seychelles-UNDP-GEF Programme Coordinating Unit and Seychelles Conservation and Climate Adaptation Trust (SeyCCAT). The SMSP is designed to protect marine biodiversity and support the blue economy, with the aim to support thriving ecosystems, economic growth and resilient communities.

Mobilising private finance is key for closing the biodiversity funding gap

Mobilising private sector finance is essential to deliver on biodiversity targets (CBD, 2020[13]). According to the latest data (OECD, 2022[33]), private finance mobilised by official providers grew by 11% in 2020, up from USD 46.4 billion in 2019 to USD 51.3 billion in 2020. Multilateral organisations are the largest contributors to the mobilisation of private finance (Table 2.3), accounting for 75% of the total.

Despite increasing, figures are relatively small for biodiversity: private finance mobilised by DAC members' ODF averaged only USD 37.2 million over 2017-20, increasing from USD 14.7 million in 2017 to USD 148.7 million in 2020, an increase of 502%. In addition, the GEF also mobilised USD 109.4 million over a similar period (2016-20), ranging from USD 94.4 million to USD 76.7 million, in 2016 and 2020, respectively – which reflects its mandate and connection to the World Bank, which allows it to benefit from the Bank's expertise in financial engineering (Landry et al., 2022[34]).

Table 2.3. Mobilisation of private biodiversity-related finance

2017-20 annual average, USD million

Providers	Average 2017-20
Multilateral institutions total	**109.4**
Global Environment Facility*	109.4
DAC members total	**37.2**
United States	22.1
Germany	6.2
Austria	4.5
United Kingdom	3.9
Korea	0.4
Other DAC members	0.1
Total private finance mobilised for biodiversity	**146.6**

Note: *The annual average mobilised by GEF is based on the 2016-20 period.
Source: OECD (2022[5]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1.

Coverage of the dataset is still improving and the estimates here may be an underestimate of actual figures. In fact, the multilateral dataset only captures data for 2016-20 – there is little data on biodiversity for years prior to that, mainly due to the evolving methodology and quality of data reporting. It is possible that the limited amounts mobilised for biodiversity also reflect the fact that projects are still at an early stage and thus are not yet reported in the statistics. Another reason for low mobilisation amounts may be the fact that some projects are identified differently under climate change or a particular sector (e.g. water and sanitation) – and biodiversity-related co-benefits are not mentioned. Finally, and given the commercial nature of activities captured here, low mobilisation amounts may also reflect low project numbers because it is more difficult to attract a broader range of investors and to scale up due to lack of investor confidence in this area as well as successful reference cases to rely on. However, multiple biodiversity-related mobilisation approaches are evolving (Box 2.5) spanning across multiple stakeholders (private, public and philanthropic) as well as financial instruments and mechanisms.

Box 2.5. Biodiversity-related mobilisation efforts are evolving

Each year, the Ministry of Foreign Affairs of the Netherlands (MFA) measures and reports the mobilisation of private climate and biodiversity finance for developing countries by Dutch public interventions (Warmerdam, Pham Van and Walstra, 2022[35]). The reporting uses the OECD-DAC methodology [see Annex B, (OECD, 2021[36])] to calculate MFA's mobilisation of private finance, distinguishing between different financial instruments (e.g. guarantees, syndicated loans, co-financing arrangements) and using the Rio Markers to determine activities' objectives. In 2021, MFA mobilised EUR 369 million private finance, of which EUR 17 million corresponded to private biodiversity finance across Dutch and multi-donor programmes and funds. In particular, the 2SCALE and AGRI3 programmes mobilised the greatest value of private biodiversity finance (EUR 6 million and EUR 5.32 million, respectively). However, it is important to note that some programmes are not reported as mobilising private finance due to their indirect catalytic effects, supporting interventions that are not included in the OECD's methodology (e.g. Water Sector Fund and the Public-Private Infrastructure Advisory Facility - which mainly provided technical assistance).

In particular, the AGRI3 Fund is an initiative created by a public private-partnership composed of the UN Environment, Rabobank, the Dutch Development bank (FMO) and the IDH Sustainable Trade Initiative (IDH) that aims to mobilise USD 1 billion to reduce deforestation and encourage sustainable agricultural practices, while also improving rural livelihoods in low and middle-income countries (Agri3 Fund, n.d.[37]). By providing guarantees, subordinated loans and other de-risking investment solutions (e.g. pari passu risk participation, tenor extension, first loss risk participations) the Fund aims to mobilise capital and provide sustainable land use at scale. In addition, MFA acts as an investor within AGRI3 Fund's financial structure, and has provided USD 40 million as a reimbursable grant (UNEP, 2020[38]), classified as providing 'guarantee/insurance' according to OECD's leveraging mechanisms. However, the Netherlands' contributions are not reflected within the OECD data on mobilisation biodiversity-related efforts yet, calling for an update of how DAC members report this data to the OECD.

While some of these limits could be solved through greater transparency on private finance mobilisation and more granularity in reporting to the OECD, especially from multilateral development banks, further attention will also be needed to ensure appropriate government policies, regulations and incentives are in place in partner countries to unleash the potential of private capital (Deutz et al., 2020[39]). One approach would be to integrate such action through the resource mobilisation strategies of NBSAP processes (Pisupati and Prip, 2015[40]; UNCCD, 2022[41]) or into Biodiversity Finance Plans (UNDP, 2016[42]). The on-going work by the Taskforce on Nature-related Financial Disclosures may also support greater transparency on mobilisation in the future (Taskforce on Nature-related Financial Disclosures, n.d.[43]).

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Notes

[1] While the CBD agreement on the Aichi target on development finance does not specify whether commitments should be assessed against nominal or real values, this report has analysed trends by adjusting for inflation and using as a reference 2020 constant prices.

[2] Previous work had already found that multilateral organisations are key providers of biodiversity-related ODF – and that multilateral flows could grow to twice the level of bilateral flows over time (Miller, Agrawal and Roberts, 2013[44]).

[3] Note by Türkiye
The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union
The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

3 A deeper dive into key areas of development finance for biodiversity

This chapter looks in more detail at how development finance is allocated by bilateral Development Assistance Committee (DAC) donors. It discusses the main recipient country categories and regions, including the specific situation of small-island developing states (SIDS) and fragile contexts; trends in marine and terrestrial biodiversity investments; the main sectors targeted by interventions; cross-cutting issues, including climate change, desertification, gender equality and capacity development; as well as official development finance for illegal wildlife trade (IWT) and indigenous peoples and local communities (IPLCs). For each of these areas, the chapter provides information on bilateral DAC donor trends using full values, that is, using the donor data figures as these were reported to the OECD.

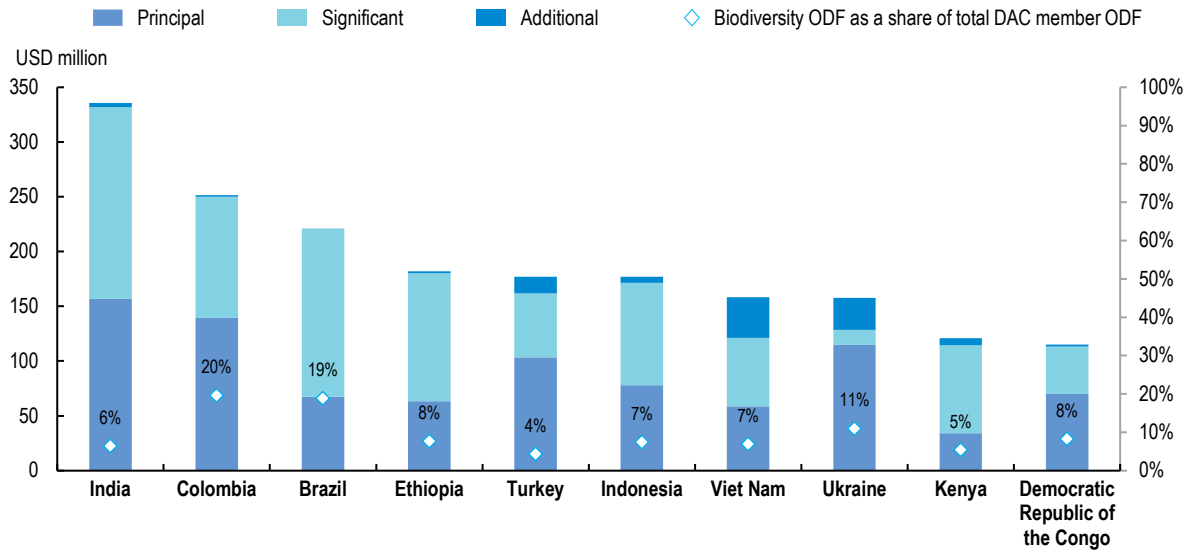
Middle-income countries with biodiversity hotspots receive the most biodiversity-related bilateral official development finance (ODF)

While the global decline of biodiversity affects all countries, biodiversity and pressures on biodiversity are unequally distributed around the world (Arlaud et al., 2018[1]). Many of the world's biodiversity-rich areas are located in developing countries, whose economies tend to depend disproportionately on intact, viable ecosystems (IPBES, 2019[2]). These countries are not always able to prioritise biodiversity-related concerns in a context of other pressing development priorities (Arlaud et al., 2018[1]). Even within developing countries, however, biodiversity is not evenly spread: it appears that most mega-diverse countries are highly concentrated in middle-income countries (MICs) and SIDS.[1] Hence, addressing global biodiversity loss does not only require meeting global funding needs, but also delivering this finance to biodiversity hotspots (Tobin-de la Puente and Mitchell, 2021[3]).

Looking at Figure 3.1, the top six recipients of bilateral biodiversity-related ODF are India, Colombia, Brazil, Indonesia, Ethiopia and Türkiye, which account for 23% of total biodiversity ODF. Among the top 10 recipients are countries that include biodiversity hotspots (Conservation International, n.d.[4]); have relatively high levels of dependence on nature (e.g. one-third of India and Indonesia's GDP derives from sectors that are highly dependent on nature (Arlaud et al., 2018[1]); and are among the countries with highest global biodiversity decline scores, e.g. Indonesia, Malaysia, Papua New Guinea, China and India (Waldron et al., 2017[5]). Biodiversity-related interventions are particularly relevant in other countries, notably Saint Lucia, Democratic Republic of Congo and Guyana, where they represent 45%, 35%, and 30% of total ODF investments respectively.

Figure 3.1. Top recipients of Development Assistance Committee (DAC) members' biodiversity-related development finance

2011-2020 annual average, commitments, USD million, 2020 prices, full values



Note: This analysis excludes unspecified and regional allocations which accounted for USD 2.7 billion or 35% of total bilateral biodiversity-related outflows.

Countries are expected to suffer acutely from the global decline of biodiversity and ecosystem services. For example, biodiversity loss is expected to reduce the GDP up to 10% by 2030, depending on the income

level (World Bank Group, 2021[6]). The literature has noted that flows have generally been well-targeted to countries with greater conservation needs (Miller, Agrawal and Roberts, 2013[7]); (Drutschinin and Ockenden, 2015[8]). In fact, LMICs receive 39% of bilateral funds for biodiversity and 31% of multilateral funds, while UMICs receive 27% and 43% respectively. Nonetheless, development finance for biodiversity out of total ODF remains low, irrespective of the income levels (5-7%).

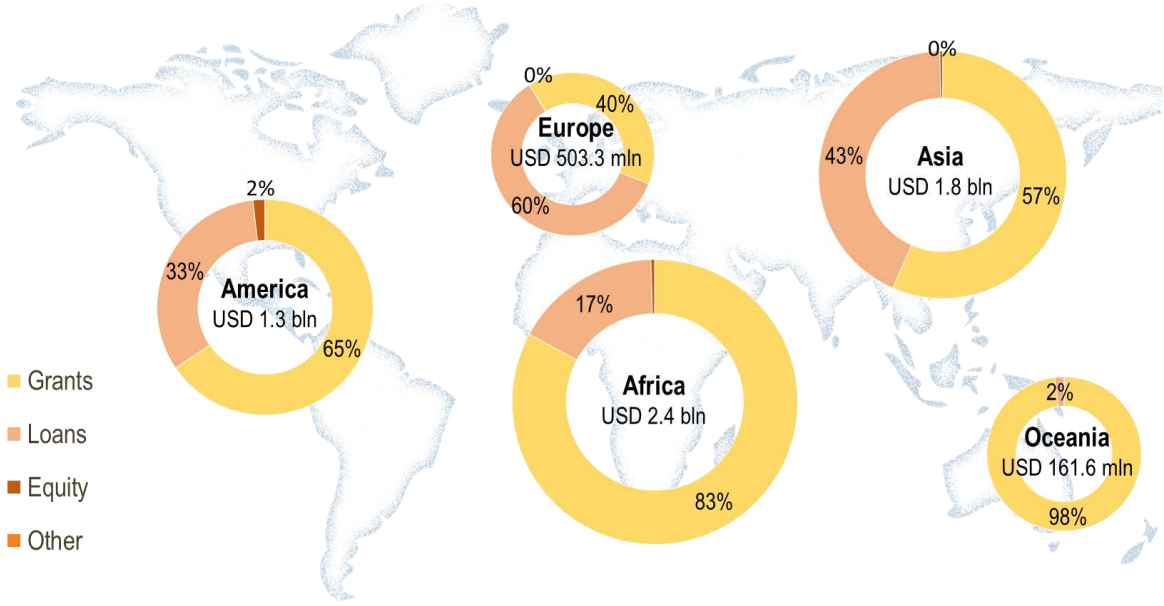
Meanwhile, Least Developed Countries and Low Income Countries, which have been prioritised by the CBD (CBD, 2020[9]) and which have fewer hotspots, have received 34% of bilateral funds and 25% of multilateral funds – this is slightly below overall bilateral (37%) and in line with multilateral (24%) ODF trends. Yet, these countries have a lot to lose from the collapse of biodiversity and their ecosystems (World Bank Group, 2021[6]). In addition, these countries are characterised by weak environmental regulations and capacity to benefit from their natural assets. Furthermore, they rely even more than MICs on resource-intensive sectors for development (Waldron et al., 2020[10]). They often exhibit high levels of fragility or are affected by conflict, while their physical, institutional and political coping capacities are often overwhelmed by the scale and complexity of the environmental challenges (OECD, 2022[11]; OECD, 2022[12]);. In these settings, it is estimated that ODF represents most of the biodiversity funding (Waldron et al., 2013[13]). While targeting biodiversity-related ODF to MICs is fully justified from a global public goods perspective (FAO, 2022[14]), donors cannot forget LDCs and LICs in their biodiversity portfolios as biodiversity provides the basis for their development and stability over time.

Africa and Asia are the regions benefitting most

In terms of regions, Africa (at USD 2.4 billion, 39% of the total) and Asia (at USD 1.8 billion, 30% of the total) are the regions that received most biodiversity-related bilateral ODF over 2011-20 (Figure 3.2). While regional flows varied over the period, the overall trend in biodiversity-related ODF was one of increase: from USD 5 billion in 2011 to USD 7.6 billion in 2020 (with 2020 flows more than doubling 2013 values). America saw the largest increase with 128%. However, flows to Oceania and Africa decreased by 6% and 5% in 2020 compared to 2019. Africa was still the region with the highest share of biodiversity-related ODF in 2020 (USD 2.3 billion, 31%). While Oceania was the lowest (USD 297 million, 4%), it was the region experiencing the highest growth rate over 2011 to 2020 (274%). Further work is needed to understand how these trends play out in per capita or GDP per capita terms.

Figure 3.2. Africa and Asia receive most Development Assistance Committee (DAC) member biodiversity-related official development fiancé (ODF)

2011-2020 annual average, commitments, 2020 prices, full values



Note: About 21% or USD 1.6 billion of biodiversity-related ODF falls into the 'unallocated' category, i.e. it is not earmarked to a country or region, and so has not been included in this analysis.

In terms of financial instruments, the predominant channels used by bilateral providers are grants (68%), followed by loans (31%). Grants are predominantly used in LDCs and LICs (88% of bilateral flows), especially in Africa (83% of bilateral flows are in the form of grants) and Oceania (98% for bilateral donors). Europe is the region that receives most contributions in the form of loans (60%). In turn, while allocations to MICs tend to involve loans and grants more evenly (51% and 49%, respectively), in terms of volume, most loans are directed to MICs (84%).

Small Island Developing States (SIDS) receive more biodiversity-related official development finance (ODF) relative to overall ODF trends

SIDS have witnessed 95% of the world's bird extinctions, 90% of reptile extinctions, 69% of mammal extinctions and 68% of plant extinctions (Arlaud et al., 2018[1]). SIDS are typically highly dependent on a single, nature-dependent economic structure to thrive, such as agriculture, tourism, and fishing, making them potentially more vulnerable to environmental degradation (Lee et al., 2022[15]). As such, SIDS are among those countries that are most directly exposed to the risk of a collapse in the ecosystem services provided by biodiversity (Nori et al., 2022[16]). This explains why the Preamble to the CBD explicitly acknowledges the special circumstances of SIDS, stating that they should be considered a priority for international biodiversity finance (CBD, 2014[17]). In turn, the SAMOA Pathway strongly supports "the efforts of SIDS to access financial and technical resources for the conservation and sustainable management of biodiversity" (United Nations, 2014[18]).

SIDS are particularly dependent on ODF, yet they experience more difficulties in accessing ODF, including for biodiversity, than other developing countries, especially grants. Among the reasons identified for this are their middle-income country status, or the need to mobilise high levels of co-financing required by

existing granting mechanisms (OECD, 2018[19]). Indeed, most of ODF for SIDS takes the form of concessional loans, which are not always adapted to the needs of SIDS.

SIDS are also particularly affected by climate change and the consequences of the COVID-19 pandemic, while the cost of delivering assistance to SIDS is estimated to be 4.7 times higher than in other developing countries. This is due to a variety of reasons, including low human resources and data capacities, limited capacities to apply for and develop funding proposals, difficulty to understand complex fund approval systems, project management cost limitations that do not consider the relatively higher costs to operate in SIDS, difficulties to manage multiple donors and to implement and monitor projects, or low levels of private sector investment (OECD, 2018[19]). Other challenges include problems of co-ordination within government and with multilateral partners, many projects taking a project-based approach (and not creating the structural changes and capacities needed for biodiversity protection), or a regional approach (with limited local-level results) (UNDESA, 2022[20]). While many of these challenges are not unique to SIDS, they are felt more acutely in these countries and imply the need to take a strategic approach when delivering and investing ODF in SIDS (OECD, 2018[19]) – including for biodiversity.

Table 3.1 shows the top SIDS recipients of ODF from bilateral providers. As a group, SIDS received USD 275 million on average annually over 2011-20, which is 5% of biodiversity-related ODF from DAC members, and slightly above overall ODF trends to SIDS (at 4% over 2011-20). According to the OECD's classification, SIDS that are LDCs received 37% of the total (and all in the form of grants), while LMICs received 26% (96% in the form of grants) and 37% went to UMICs (receiving 63% in the form of grants). Several SIDS countries received significant shares of biodiversity-related flows from DAC members: Saint Lucia (45% of all ODF received), Guyana (30%), Suriname (22%), Guinea-Bissau (16%), Cuba (15%), Mauritius (14%), Tuvalu (12%), Papua New Guinea (11%), and Palau (10%).

Table 3.1. Small island developing states (SIDS) are particularly dependent on official development finance (ODF)

2011-2020 annual average, commitments, USD million, 2020 prices, full values

	Biodiversity-related ODF			
SIDS	**USD million**	**Biodiversity-related ODF as a share of ODF**	**Biodiversity-related ODF as a share of total SIDS biodiversity-related ODF**	**Biodiversity-related ODF as a share of total DAC member biodiversity-related ODF**
Papua New Guinea	56.0	10.8%	20.3%	0.7%
Haiti	52.8	7.0%	19.2%	0.7%
Mauritius	17.7	13.6%	6.4%	0.2%
Timor-Leste	17.2	8.8%	6.2%	0.2%
Dominican Republic	16.4	6.1%	6.0%	0.2%
Solomon Islands	15.0	8.0%	5.4%	0.2%
Guyana	14.3	29.7%	5.2%	0.2%
Cuba	13.7	14.9%	5.0%	0.2%
Saint Lucia	10.3	45.5%	3.8%	0.1%
Vanuatu	9.5	9.3%	3.4%	0.1%

Note: This figure showcases the top 10 SIDS recipients out of 33 ODA eligible SIDS recipients over 2011-20. SIDS recipients that have graduated from the DAC list of ODA Recipients have not been included in this classification (i.e. Seychelles, Saint Kitts and Nevis, and Cook Islands)
Source: (OECD, n.d.[21]).

Even though there are instances of biodiversity improving, including with the support of ODF – e.g. in Mauritius, Seychelles, Fiji, Samoa and Tonga (Waldron et al., 2017[5]) – the challenges SIDS are

experiencing in accessing ODF, including for biodiversity, are hampering their ability to implement the Convention. For example, the GEF's System of Transparent Allocation of Resources does not take into account the fact that SIDS have difficulty accessing other funds; and the GEF Biodiversity Focal Area approach may not fund activities that are pertinent to SIDS' biodiversity goals (e.g. managing invasive alien species; managing plastic waste pollution) (UNDESA, 2022[20]). Nevertheless, as a result of GEF-8's replenishment negotiations (GEF, 2022[22]), there has been an increasing recognition that more STAR funding should be provided to vulnerable countries (i.e. SIDS and LDCs). In other cases, reliance on concessional loans for biodiversity may exacerbate SIDS' debt sustainability issues, with budgets already stretched due to climate-related impacts, even in high-income SIDS that no longer have access to ODA (OECD, 2021[23]). Work is being done to the methodology for updating the DAC List of ODA Recipients (e.g. reinstating countries or territories in case of catastrophic humanitarian crisis) (OECD, 2019[24]), which would ensure that certain SIDS can continue to receive biodiversity-related ODF (UNDESA, 2022[20]; IISD, 2020[25]).

Fragile contexts require more ODF to avoid the consequences of biodiversity collapse

Biodiversity hotspots and fragile contexts partially overlap – with most overlaps observable in East Africa, coastal areas of West and Southeast Africa, as well as Central America, the Himalayas and Southeast Asia (OECD, 2022[11]; OECD, 2022[26]). This overlap suggests that many fragile contexts are exposed to the multidimensional impacts of biodiversity loss and ecosystem collapse, since conflict-affected contexts suffer disproportionately from climate disruptions, environmental degradation and plundering. In turn, this overlap also suggests that many fragile contexts are key to maintaining several foundations of planetary health and security. The role they play in the fight against climate change and biodiversity loss should receive more attention, especially as nature plundering is often part and parcel of conflict and illicit economies. This relationship is equally important when understanding that fragile countries tend to attract unhealthy geopolitical interests in the race towards critical minerals necessary for the energy and digital transition, which also partially threaten the health of critical ecosystems.

Biodiversity loss fuels fragility, and in turn fragility makes it hard to adapt to the impacts of biodiversity loss (OECD, 2022[12]). Protecting biodiversity in fragile contexts will require support for complex regeneration efforts, ecosystems-based approaches, mediation and negotiation, while building resilience and addressing the root causes of fragility. Humanitarian, development and peace actors will need to draw on the right expertise to support sustainable outcomes contexts affected by environmental fragility (OECD, 2022[11]; OECD, 2022[26]).

The role of donors in this space is relevant. For example, reforestation programmes – including the Great Green Wall initiative – that engage local marginalised communities, e.g. to design law enforcement mechanisms and informal taxation (Raineri, 2020[27]), and ensure equitable resource access (Daouda Diallo, 2021[28]; CEOBS, 2021[29]) can ensure effective security and biodiversity outcomes. Similarly, peacekeeping missions or stabilisation programmes that incorporate environmental aspects, thus integrating the role of ecosystems and considering their own environmental footprint (OECD, 2022[11]); (OECD, 2022[26]), can lead to more sustainable and efficient intervention outcomes. Many DAC donors have therefore identified the importance of linking support to environmental regeneration and biodiversity conflict prevention, conflict resolution and peacebuilding (OECD, 2022[12]).

According to OECD data, USD 2 billion, or 38% of biodiversity-related ODF, targeted fragile contexts on average annually over 2019-20. This is lower than the overall ODF flowing to fragile settings (49% of total ODF targets fragile contexts). Looking at Table 3.2, DAC members mainly target with their biodiversity-related ODF contexts facing moderate environmental fragility, which is a key element of fragility, while overall ODF targets contexts that experience severe and moderate fragility, suggesting that environmental

factors do not always drive ODF commitments to fragile contexts. Biodiversity-related ODF for contexts of severe environmental fragility principally went to Ethiopia, Kenya, Uganda, Democratic Republic of the Congo, Mozambique and Tanzania (representing 12% of flows for environmentally fragile contexts overall) on average over 2019-20.

Table 3.2. The most environmentally fragile contexts are not always targeted by biodiversity-related official development finance (ODF)

2019-2020 annual average, bilateral commitments, 2020 prices, full values

Environmental fragility degree	Biodiversity-related ODF shares	ODF shares
Severe environmental fragility	28%	33%
High environmental fragility	18%	24%
Moderate environmental fragility	38%	31%
Low environmental fragility	16%	12%

Note: Environmental fragility classification based on (OECD, 2020[30]); for more information on the methodology please see Annex A.

Given these trends, this report concludes that further efforts could be focused on biodiversity-related ODF for fragile settings, using the OECD's multidimensional fragility framework to uncover risks linked to conflict and biodiversity, and building upon existing good practices, e.g. to build absorptive capacities and ensure optimal operational environments. One good example is the Fisheries Support Project (2016-24) in Mali, funded by the EU and implemented by Belgium's ENABEL and France's AFD. This aimed at promoting peace, including through natural resource and ecosystem management. AFD brought the conflict sensitivity component to the project to help identify the causes of conflicts linked to the governance of fishing resources, thus focusing the project on co-management of resources by a network of local fishery users (OECD, 2020[31]).

Terrestrial biodiversity is favoured over marine biodiversity

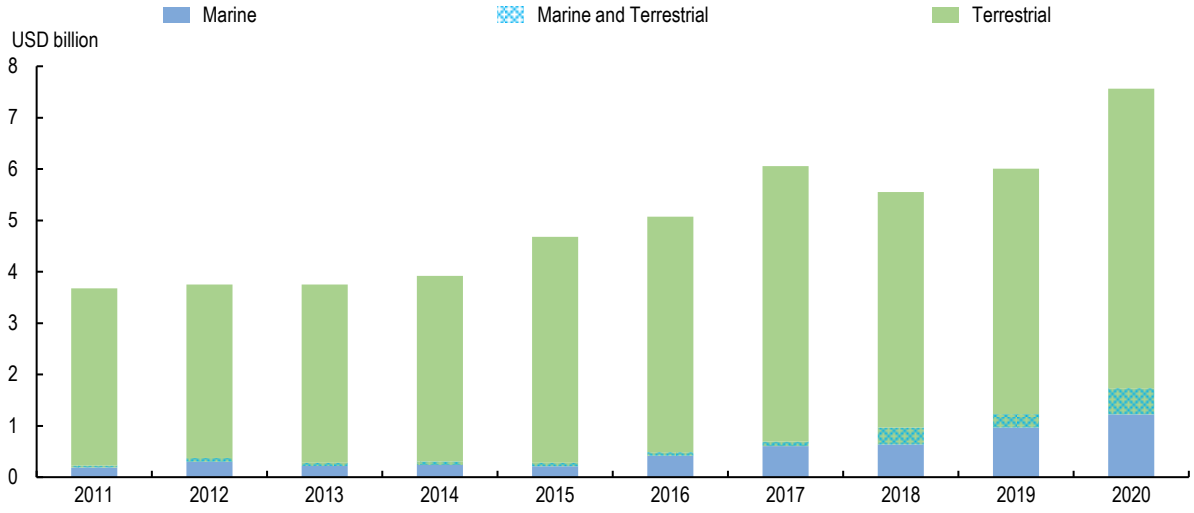
As data on ODF targeting terrestrial or marine biodiversity are not readily available through the OECD Creditor Reporting System, a specific methodology was devised for this report to understand DAC member flows to both marine and terrestrial biodiversity (Annex A). This methodology relies on a keyword search and is approximative: it only reassigns a portion of all biodiversity-related flows from DAC members into marine and terrestrial categories (65% of all flows over 2011-20). There is a pressing need for further information to track terrestrial, and, especially marine biodiversity-related ODF (Standing, 2021[32]),

The results indicate that 87% of reassigned bilateral ODF related to biodiversity is targeted at terrestrial biodiversity only (USD 4.5 billion on average over 2011-20; Figure 3.3), and mainly for agriculture and forestry. The share dedicated to marine biodiversity is small (10%, or USD 501 million on average over 2011-20), but slowly increasing, and mainly targets fisheries – as also noted by (OECD, 2020[33]). In addition, a minor share of ODF targets marine and terrestrial biodiversity together (3% or USD 160 million); this grew more than 10-fold over 2011-20. Together, marine only and marine and terrestrial ODF accounts for 13% of reassigned biodiversity related-ODF. This rise in biodiversity-related finance for marine sectors is a central component of the "sustainable ocean economy" concept (OECD, 2020[34]), and reflects the fact that many developing countries, particularly some LDCs and most SIDS, rely on ocean-based sectors, such as tourism, for income and jobs (OECD, 2020[34]). Mounting pressures on the ocean and its ecosystem services – from overfishing, pollution, and climate change, as well as new trends such as coastal darkening and the impact of wildfires on marine ecosystems – mean that developing countries are likely to face greater risks from rapidly deteriorating marine and coastal resources (Herbert-Read et al.,

2022[35]). This, in turn, implies that more attention will need to be placed on ODF that can support marine biodiversity-related activities in the future.

Figure 3.3. Marine biodiversity receives a small but growing share of biodiversity-related official development finance (ODF)

2011-2020 annual average, bilateral commitments, USD billion, 2020 prices



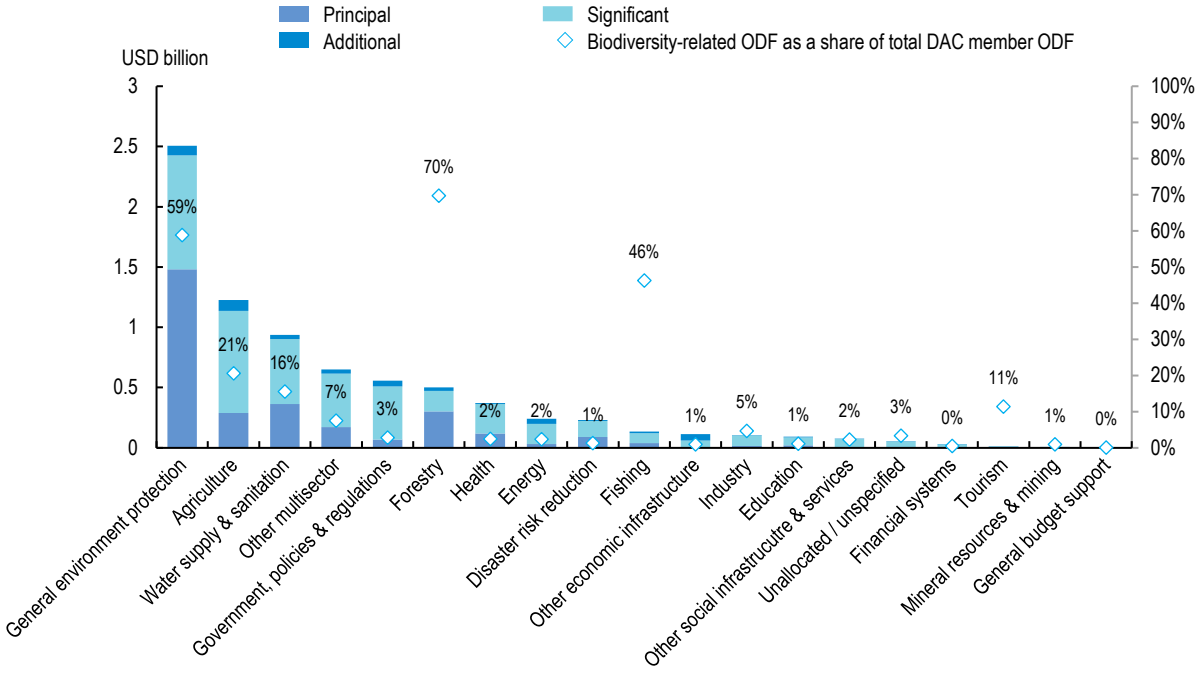
Note: This figure reflects activities classified as marine, marine and terrestrial, and terrestrial, representing 65% of total biodiversity-related flows. From the remaining 35% (USD 2.9 billion), 27% was recognised as being "biodiversity-related unspecified", and 9% could not be specified overall. Unclassified activities conform to sectors such as general budget support, education, social infrastructure and services, and tourism.

Biodiversity could be better mainstreamed into all official development finance (ODF)-dependent sectors

In volume terms, the main sectors targeted by bilateral biodiversity-related ODF are general environmental protection (59%, although 41% of which target the biodiversity sector itself), agriculture (21%) and water and sanitation (16%) (Figure 3.4). In most cases, activities have been mainstreamed (captured by the significant marker), except in the general environment protection and forestry sectors where they represent the core objective of the activities.

Figure 3.4. Most Development Assistance Committee (DAC) members biodiversity-related official development finance (ODF) goes to nature-dependent sectors

2011-2020 annual average, bilateral commitments, USD billion, 2020 prices, full values



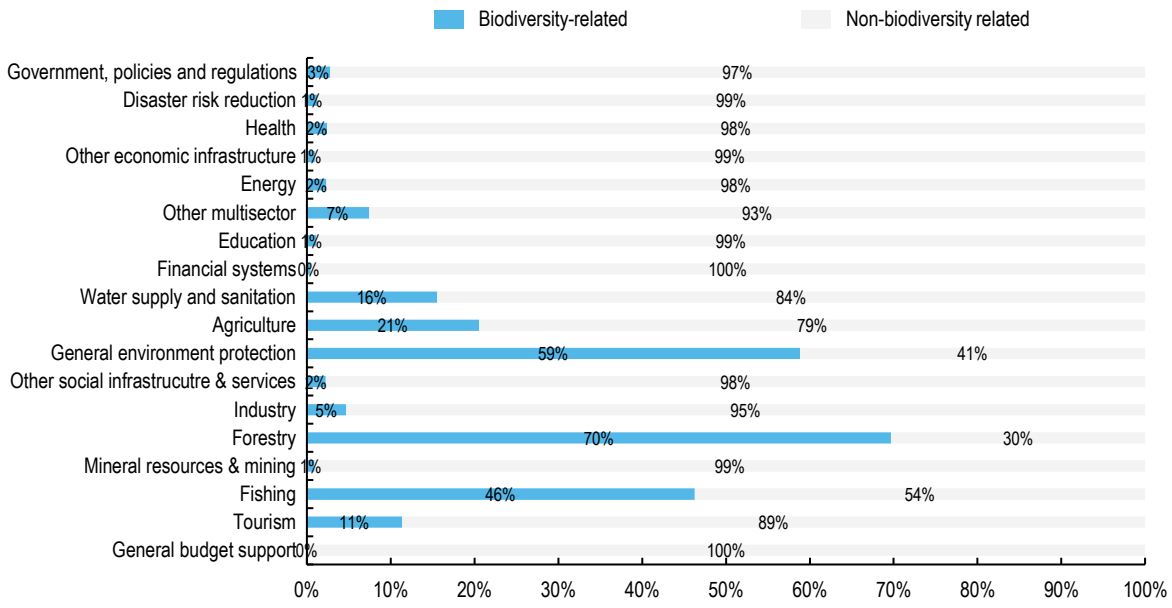
Note: About 1% or USD 54 million of biodiversity-related ODF falls into the "unallocated" category, i.e. it is not earmarked to a sector, and so has not been included in this analysis.

Fostering synergies between biodiversity and other cross-cutting themes is a cost-effective way of achieving sustainable development, given its multi-dimensional and integrated nature. Despite existing efforts, an urgent need remains to improve the knowledge base on the synergies among cross-cutting themes to maximise co-benefits in mainstreaming, bring biodiversity out of niche activities and have a significant impact (Milner-Gulland et al., 2021[36]). This enhanced understanding is particularly important in sectors that are dependent on nature and ecosystem services, either directly or through the supply chain, such as the agriculture, forestry, fisheries, construction and energy sectors. For example, agriculture and energy are among the largest sectors contributing to land-use change and water consumption. These sectors need to address biodiversity issues to curb possible negative biodiversity impacts (and trends) (Brörken et al., 2022[37]). However, according to the estimated figures in Figure 3.4, several nature-related sectors, such as agriculture and water supply and sanitation, have a low share of biodiversity-related representation.

Figure 3.5 shows that the sectors receiving most of the estimated bilateral ODF (including nature-dependent sectors) receive a small share of biodiversity-related ODF, pointing to the potential to further mainstream biodiversity in these areas, as well as the need for further future work to understand how that mainstreaming could be enabled. It is also important to know what is happening in these sectors, in case activities are detrimental to biodiversity objectives. This exercise would require an in-depth analysis of the entire ODF portfolio (including investments that have not been screened for biodiversity impacts, or screened but deemed not relevant to biodiversity, in the case of bilateral donors) and will not be easy to answer or depict.

Figure 3.5. Biodiversity could be far more mainstreamed into some important official development finance (ODF) sectors

DAC member development finance estimates by sector and shares of biodiversity mainstreaming, 2011-20 annual average, commitments, 2020 prices, full values



Note: Sectors are organised by volume of total DAC member ODF, with sectors receiving the largest ODF contributions at the top and the lowest at the bottom. About 1% or USD 54 million of biodiversity-related ODF falls into the "unallocated" category, i.e. it is not earmarked to a sector, and so has not been included in this analysis.

The literature is increasingly framing finance through the lens of biodiversity-related or nature-related risks (Finance for Biodiversity Initiative, 2021[38]). Donors investing in some of the nature-dependent sectors could be exposed to risks of biodiversity and ecosystem collapse. If this occurred, investments would fail, and assets could end up stranded. This underlines the need to consider long-term biodiversity risks through all investments, in addition to ensuring net gain impacts in biodiversity as well as coherence between ODF allocated to other sectors and biodiversity – seeking to avoid unintentional damages to biodiversity. ODF can be used to demonstrate the value of investing in biodiversity-friendly sectors. For example, in the agriculture (IFAD, 2021[39]) or mining sector (Hoover El Rashidy, 2021[40]).

A final consideration is to ensure that biodiversity is included in assessments of policy coherence for sustainable development. Policy coherence refers to the integration of all dimensions of sustainable development (economic, social, environmental and governance) at all stages of domestic and international policymaking – which implies ensuring that domestic activities do not undermine global biodiversity. For example, in 2017, the 27 OECD countries that report data to OECD's Fisheries Support Estimate database provided USD 700 million of direct support to individuals or companies in fisheries. About 40% of these transfers were directed at lowering the cost of inputs, e.g. through subsidies for vessel construction or modernisation, or through policies to lower the cost of fuel. OECD work has shown that such policies are among the most likely to provoke overfishing, overcapacity, and illegal, unreported and unregulated fishing. Re-directing support away from policies that incentivise more intensive fishing, towards activities that improve the sustainability of fishing operations, could have significant benefits for marine biodiversity, as well as for fishers' livelihoods (OECD, 2020[34]).

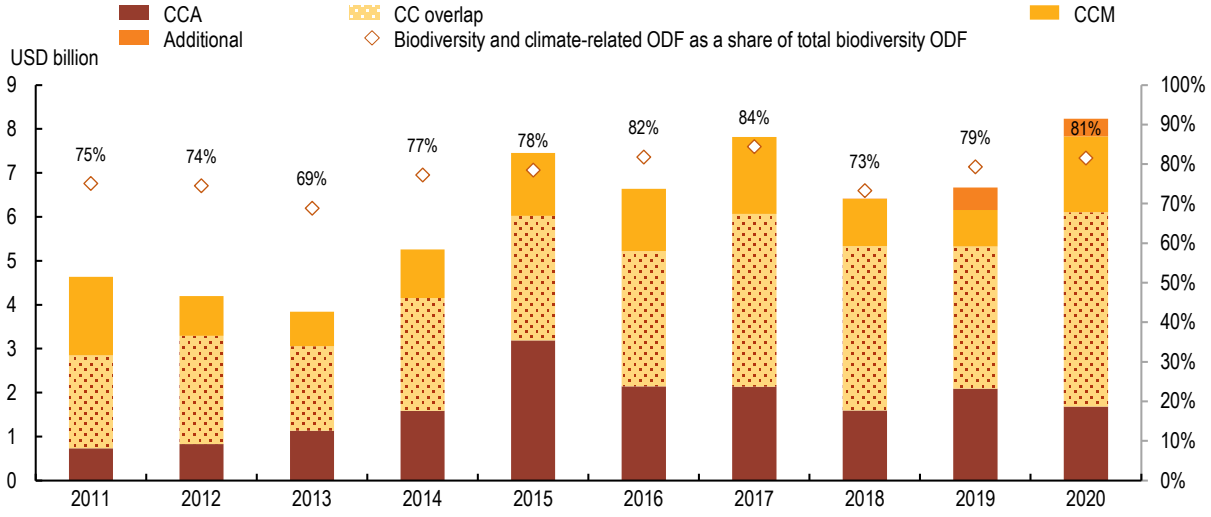
Climate investments dominate biodiversity-related official development finance (ODF), highlighting scope for greater use of nature-based solutions

The interlinkages between climate change and biodiversity loss are complex, but the opportunities to generate financing co-benefits are starting to be better understood (Tobin-de la Puente and Mitchell, 2021[3]). Global climate regulation depends on healthy ecosystem services. Vegetation and soils, notably in forests, wetlands and peatlands, as well as coastal and marine ecosystems such as mangroves, tidal marshes and seagrass meadows, are important contributors to climate change mitigation through carbon sequestration (IUCN, n.d.[41]), and by participating in nutrient cycling – including carbon. Species-rich ecosystems are often carbon-rich ecosystems (Rainforest Foundation Norway, 2021[42]). Yet, climate change is now the third-largest driver of biodiversity loss (IPBES and IPCC, 2021[43]). Financial resources should increase benefits for both biodiversity and climate, and minimise trade-offs. Failure to do so may lead to projects targeting climate change mitigation, for example, that may be negative for biodiversity (e.g. pursuing carbon sequestration strategies that promote the expansion of fast-growing monoculture plantations in natural grasslands or tropical areas with primary forest systems, or fostering the construction of seawalls that damage coastal habitats and ecosystem services) (FAO, 2022[14]).

DAC donors' investments in the area of biodiversity are mainly driven by concerns about climate change, a trend already noted by (Donner, Kandlikar and Webber, 2016[44]). Figure 3.6 shows that 78% of biodiversity-related DAC bilateral ODF also targets climate change on average over 2011-20. The value of ODF activities targeting both climate change adaptation and mitigation objectives simultaneously amounted to USD 6.1 billion annually on average over 2011-20. However, only 21% of climate-related development finance also targets biodiversity specifically on average over 2011-20 – and this share is declining from 28% in 2011 to 18% in 2020 (Figure 3.7). The rate of growth of climate integration into biodiversity-related ODF (78% growth rate over 2011-20) far outpaces the 38% growth rate for biodiversity activities being integrated into climate-related ODF. This reflects what some analysts call "climatising" nature, suggesting that activities are rarely designed to tap into climate-biodiversity co-benefits (Pettorelli et al., 2021[45]).

Figure 3.6. Climate change receives a huge share of total biodiversity-related official development finance (ODF)

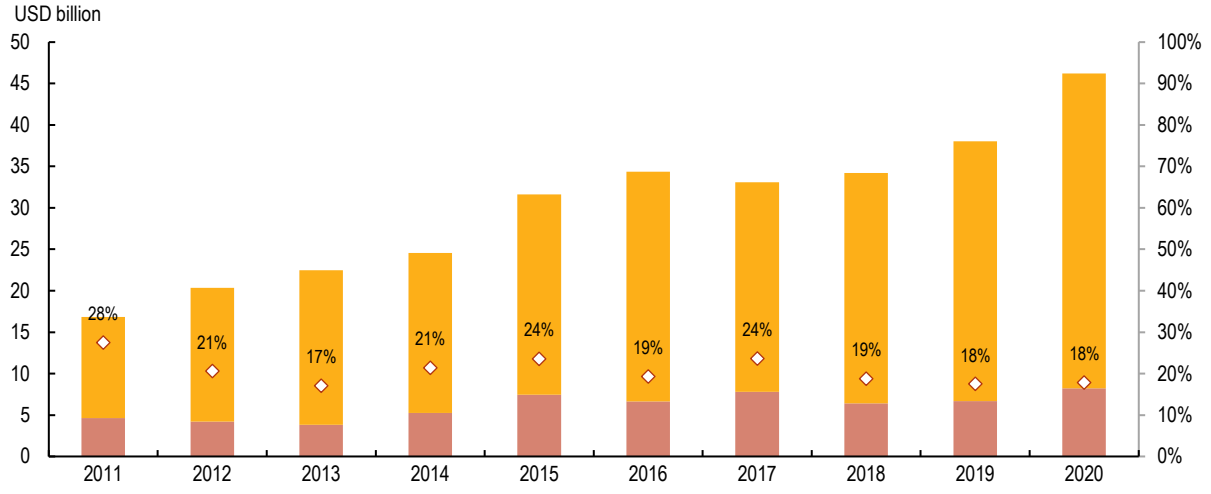
2011-20 annual average, bilateral commitments, USD billion, 2020 prices



Note: CCA=climate change adaptation; CCM=climate change mitigation; CC overlap=activities targeting both climate change adaptation and mitigation objectives simultaneously; additional=activities captured through SDGs 14 and/or 15 tags that could not be disaggregated by type of climate objective.

Figure 3.7. Biodiversity receives a small, and declining, share of total climate-related development finance

2011-20 annual average, bilateral commitments, USD billion, 2020 prices



Financing nature-based solutions (Box 3.1) can support biodiversity goals (World Bank, 2008[46]; Parrotta et al., 2022[47]) and can deliver multiple benefits for human well-being (UNDP; Secretariat of the CBD; UNEP-WCMC, 2021[48]). Such solutions may be particularly relevant in lower income countries, given high dependency on local ecosystems for basic needs and livelihood strategies, and a lack of finance for technological or infrastructural approaches (Woroniecki et al., 2022[49]). Despite the growing interest in this area, there is relatively little knowledge or understanding of the flows directed to nature-based solutions (UNEP, 2021[50]), mainly due to constraints in tracking such financing (UNEP, 2021[50]; Deutz et al.,

2020[51]). For this report, bilateral biodiversity-related ODF flows were classified according to their contribution to ecosystem-based adaptation, mitigation and eco-based disaster risk reduction (eco-DRR) (Figure 3.8, Figure 3.9, and Figure 3.10). These activities largely overlap with the activities that members reported using the markers system. In many cases, however, activities could not be classified as being nature-based solutions.

Box 3.1. Nature-based solutions are growing in popularity

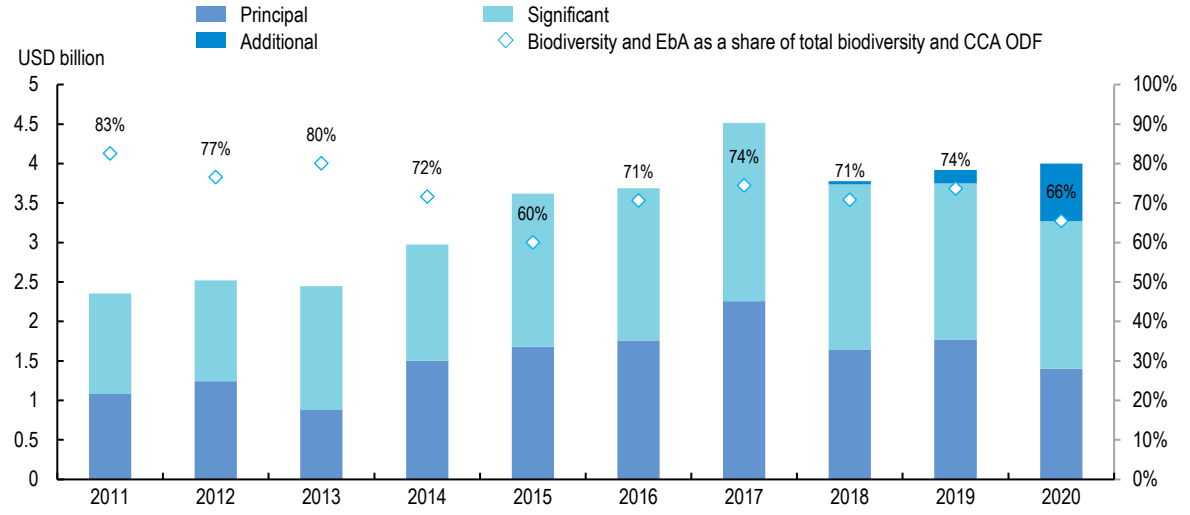
According to the United Nations Environment Assembly, nature-based solutions (NbS) are actions that "protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, such as climate change, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits" (UNEP, 2022[52]). Nature-based solutions are estimated to be 30% to 36% of the climate solution and are attracting an increasing number of investments (Griscom et al., 2017[53]), while 30% of the world's cost-effective, near-team mitigation potential can be provided by the land-use sector by stopping deforestation, restoring ecosystems, and improving agricultural practices (FAO, 2022[14]). However, other research finds that it is likely that the available scientific literature overestimates the realistic potential of NbS for climate change mitigation (Förster, 2022[54]).

NbS for climate action can be seen as encompassing other concepts, such as ecosystem-based adaptation and mitigation (EbA, EbM), as well as ecosystem-based disaster risk reduction (eco-DRR), sharing important attributes and characteristics – namely the importance of the sustainable use of resources to ensure the integrity of natural processes and biodiversity (Terton, 2022[55]; CBD, 2014[17]; CBD, 2016[56]; Murti and Buyck, 2014[57]; Lo, 2016[58]; Luna Rodríguez and Villate Rivera, 2022[59]). While ecosystem-based adaptation refers to activities that harness biodiversity and ecosystem services to reduce vulnerability and build resilience to climate change; ecosystem-based mitigation activities use ecosystems and biodiversity to reduce greenhouse gas emissions; and finally eco-DRR approaches entail combining natural resources management approaches, or the sustainable management of ecosystems, with disaster risk reduction methods. As seen in Table 4.2, a growing number of DAC members also refer to the importance of NbS in their biodiversity-related development co-operation frameworks. Over 130 countries have included NbS in their Nationally Determined Contributions (Terton, 2022[55]; WWF, 2021[60]).

Ecosystem-based adaptation and ecosystem-based mitigation follow different paths over 2011-20, with EbA increasing in volume but decreasing in relative terms as a share of climate change adaptation and biodiversity ODF (Figure 3.8), while EbM also increased in volume but remained flat in relative terms (Figure 3.9). This is in line with previous analyses of EbA (Swann et al., 2021[61]; UNEP, 2021[50]). In turn, eco-DRR, which is the sustainable management, conservation and restoration of ecosystems to reduce disaster risk, is an emerging area for donors (UNDP; Secretariat of the CBD; UNEP-WCMC, 2021[48]); (Tyllianakisa, Martin-Ortega and Banwart, 2022[62]). The trends here show that while eco-DRR is increasing in volume, it is decreasing in relative terms, and that it is mainly targeted through mainstreaming rather than as a principal objective (Figure 3.10). Although this approach addresses climate-related events (ex. floods, droughts) and non-climate-related events (ex. earthquakes and tsunamis), it is widely used to prevent disasters caused by climate impacts (Luna Rodríguez and Villate Rivera, 2022[59]).

Figure 3.8. Biodiversity-related official development finance (ODF) for ecosystem-based adaptation has increased

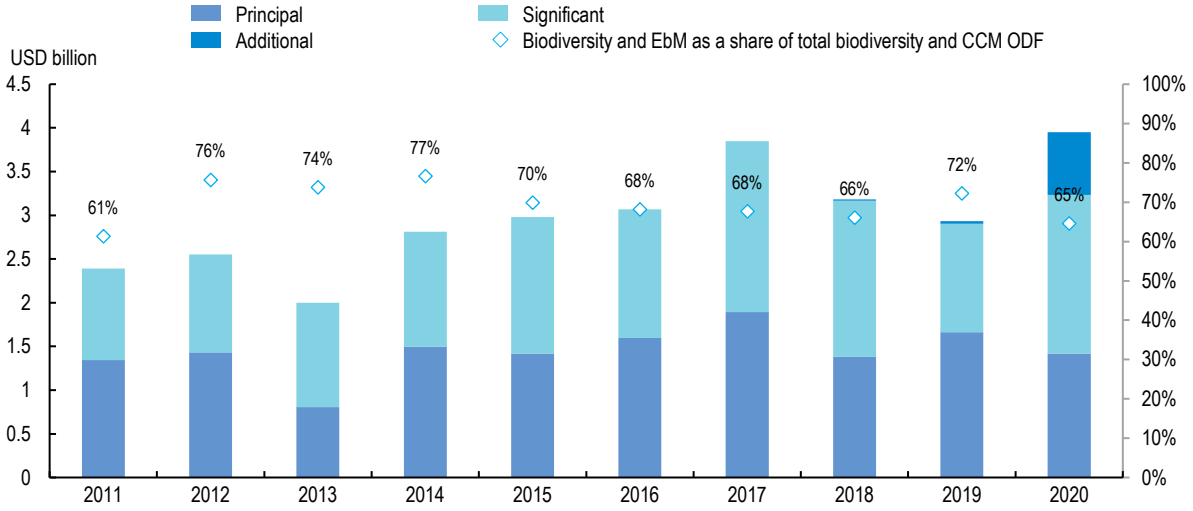
2011-20 annual average, bilateral commitments, USD billion, 2020 prices



Note: For further information on the methodology used to capture ecosystem-based adaptation activities, please refer to Annex A, Nature-based Solutions and Ecosystem-based Approaches.

Figure 3.9. The share of ecosystem-based mitigation in biodiversity-related official development finance (ODF) as stagnated

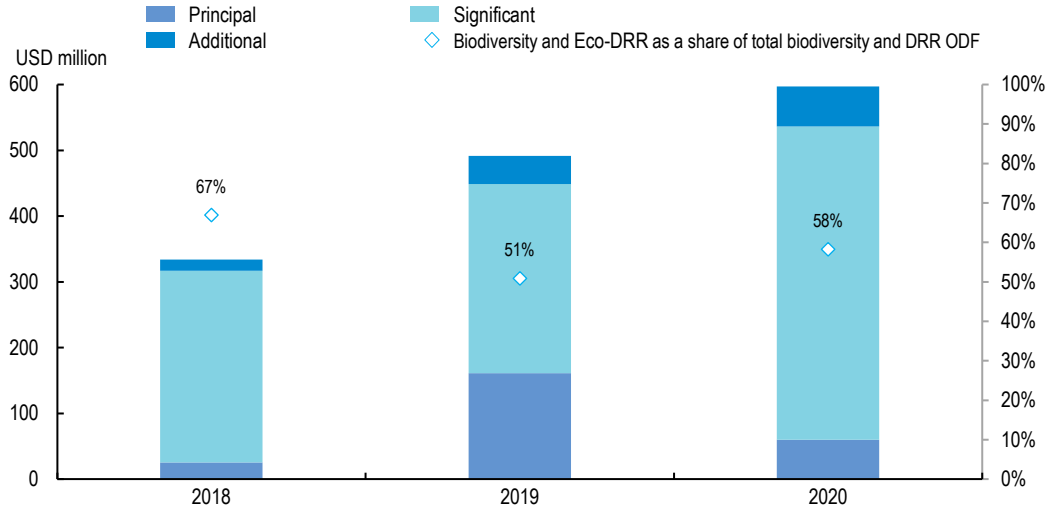
2011-20 annual average, bilateral commitments, USD billion, 2020 prices



Note: For further information on the methodology used to capture ecosystem-based mitigation activities, please refer to Annex A, Nature-based Solutions and Ecosystem-based Approaches.

Figure 3.10. Biodiversity-related official development finance (ODF) for ecosystem-based disaster risk reduction is increasing

2018-20 annual average, bilateral commitments, USD million, 2020 prices



Note: For further information on the methodology used to capture ecosystem-based disaster risk reduction activities, please refer to Annex A, Nature-based Solutions and Ecosystem-based Approaches.

Overall, there is scope to enhance the integration of climate and biodiversity objectives across development co-operation activities. Indeed, UNEP considers that NbS are significantly under-financed: investments in NbS would need to triple in real terms by 2030 and to increase four-fold by 2050 if the twin biodiversity and climate change crises are to be tackled efficiently (UNEP, 2021[63]; UNEP, 2022[64]). To do so, donors would need to better understand the capacity and governance gaps of NbS, as well as how to integrate cross-cutting issues such as gender equality and indigenous peoples' rights into NbS (UNFCCC, 2021[65]). They would also need to work further to implement NbS investments, in order to enhance synergies and avoid trade-offs (Terton et al., 2022[66]; Tsioumani, 2022[67]), notably through NBSAPs, NDCs and NAPs (Förster, 2022[54]). There is also scope to mobilise private sector investment (UNEP, 2021[50]; UNFCCC, 2021[65]). Some innovative solutions are already emerging, such as the UN Biodiversity Lab Maps of Hope (Box 3.2). Finally, they need to track these investments better (Nature Climate Change, 2022[68]). There is a recognised risk that NbS will not get the resources needed to deliver joined up action on climate and nature – and that countries may deprioritise these efforts as a result (WWF, 2021[60]).

Box 3.2. The UN Biodiversity Lab Maps of Hope

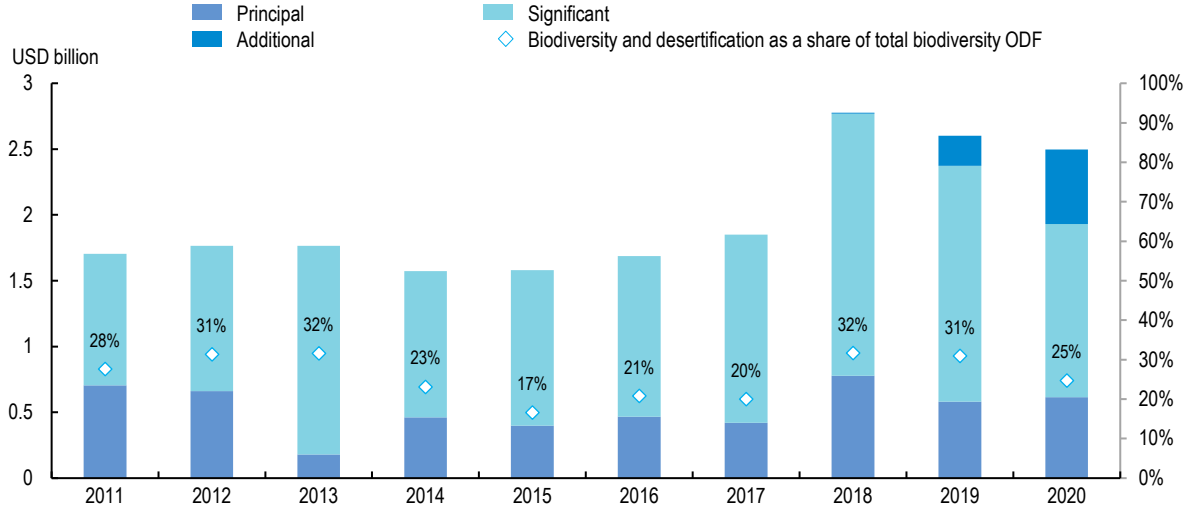
The UN Biodiversity Lab provides a platform where users can access global and national spatial datasets. UNDP and partners combined forces with selected countries (Cambodia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Haiti, Kazakhstan, Nepal, Peru, South Africa and Uganda) to produce "maps of hope" that identify where NbS can safeguard essential life support areas to maintain key biodiversity and ecosystem services, including food and water security, sustainable livelihoods, DRR, and carbon sequestration. The result is a map that governments can use to harmonise nature and development policies and prioritise areas for protection, management, and restoration (UN Biodiversity Lab, n.d.[69]; UNDP, 2021[70]).

Desertification and biodiversity are increasingly targeted in interventions

Land is the operative link between biodiversity loss and climate change, and therefore is also a central element to tackle these intertwined crises (UNCCD, 2022[71]). For example, restoring degraded land and soil can halt the risk of widespread, abrupt, or irreversible environmental changes that contribute to biodiversity loss and climate change (UNCCD, 2022[71]). DAC members integrated both priorities into 25% of all biodiversity projects over 2011-20 (Figure 3.11). Funding for desertification and biodiversity-related objectives is concentrated in a few donors, with the EU (26%) and Germany (22%) providing half of the flows. Moreover, development finance for desertification and biodiversity-related purposes mostly flows to a few sectors: general environment protection (27%), agriculture (26%), other multisector (10%) and forestry (10%).

Figure 3.11. Biodiversity-related and desertification official development finance (ODF) are increasingly integrated

2011-20 annual average, bilateral commitments, USD billion, 2020 prices



Note: The analysis draws on the biodiversity and desertification Rio Markers, as well as SDGs 14 and 15. For further information see Annex C.
Source: OECD (2022[72]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1.

While the overlap between biodiversity- and desertification-related ODF has been increasing over time – peaking in 2018 (USD 2.8 billion), it remains far smaller than for climate change. This is therefore an area where donors can increase their action in seeking co-benefits.

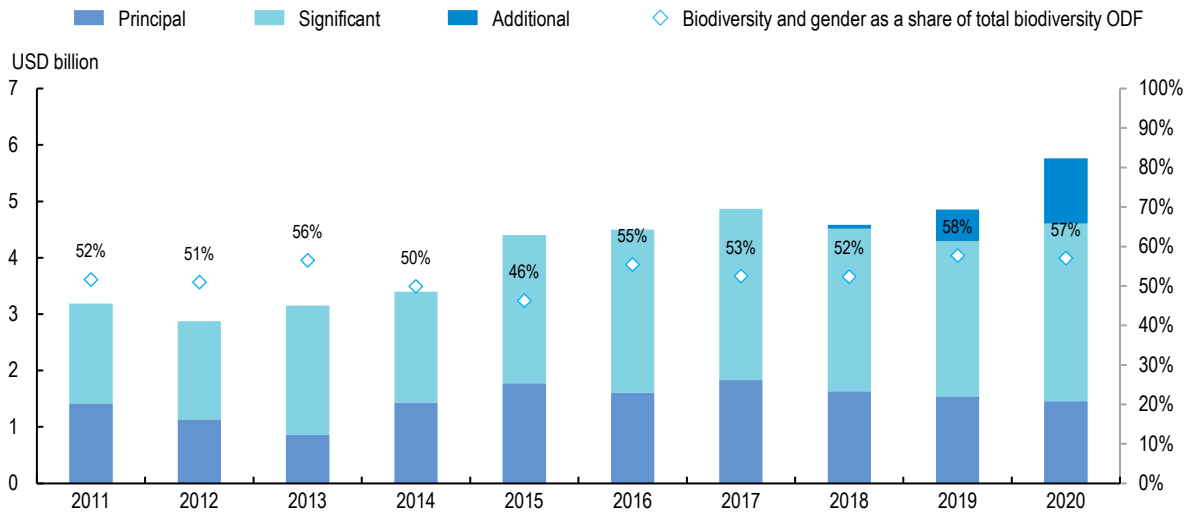
The gender equality and biodiversity nexus is an area of growing interest for Development Assistance Committee (DAC) members

Identifying and addressing gender issues in biodiversity-related ODF can add up to a multitude of benefits, such as improvements in forest management and access to water; increased capacity to carry out climate change vulnerability assessments and adaptation planning; reducing illegally caught fish; increased leadership roles for women in peace processes and environmental governance; as well as improved perceptions of women's capacities and enhanced status, earnings and social benefits (CBD, 2022[73]). Funding that targets both gender equality and biodiversity has been increasing over time, both in absolute

and relative terms (Figure 3.12). This has been primarily driven by greater uptake of gender considerations in climate activities that have biodiversity co-benefits (OECD, 2022[74]).

Figure 3.12. Biodiversity-related and gender mainstreaming is increasing in development finance

2011-20 annual average, bilateral commitments, USD billion, 2020 prices



Note: The analysis draws on the biodiversity Rio Marker and the gender marker, as well as SDGs 5, 14 and 15. For further information see Annex C.
Source: OECD (2022[72]), OECD DAC Creditor Reporting System Statistics, https://stats.oecd.org/Index.aspx?DataSetCode=crs1.

Iceland, Canada, Sweden, Luxembourg, Denmark and Ireland have mainstreamed gender considerations into over 80% of their biodiversity portfolio; and biodiversity-gender mainstreaming commitments are increasingly frequent. For example, Belgium, the EU, France, Germany, Korea, the Netherlands, Norway, and the UK recently raised their ambitions on gender mainstreaming across all programmes in their Central African Forest Initiative (CAFI, 2020[75]), while France, the EU, the GEF, Japan and the World Bank are behind the Critical Ecosystem Partnership Fund, which has mainstreamed a gender dimension into its actions (CEPF, n.d.[76]). Multilateral institutions have also put forward gender equality measures to guide biodiversity-related activities, e.g. the GEF refreshed its Policy on Gender Equality in 2017 (GEF, 2017[77]; GEF, 2018[78]); the GCF approved an updated Gender Policy and Gender Action Plan (2020-23) (GCF, 2020[79]; GCF, 2019[80]); and UN-REDD intends to have gender fully mainstreamed in 50% of programme outputs by 2020 (UN-REDD, 2017[81]; UNDP-BIOFIN, 2017[82]).

DAC members could continue to look for ways to fund gender responsive national programmes, and grants specifically targeting women's sustainable livelihoods. Innovative approaches include supporting crowdfunding by women environmental actors and making women's participation a criterion for receiving and deciding on use of community funds. Other strategies include allocation of funds to deliver on gender actions in NBSAPs (CBD, 2022[73]). Examples of these include the project Promoting Gender-Responsive Approaches to Natural Resource Management for Peace (2016-18), supported by the Government of Finland and jointly managed and implemented by the Sudan country offices of UNDP, UNEP and UN Women (UNEP, 2019[83]); the Ghana Sustainable Fisheries Management Project (2014-21), supported by USAID, which shows that small grants can be mobilised specifically to promote innovative tools and approaches as well as gender equality and social inclusion (USAID, 2021[84]); and the Hariyo Ban Programme (2011-21) funded by USAID, which aims to increase ecological and community resilience in various biodiverse landscapes of Nepal and that, inter alia, improved gender responsive internal

governance of forest groups, increased men's and decision makers' engagement in promoting women's leadership, and reduced gender-based violence in natural resources management (WWF Nepal, 2017[85]).

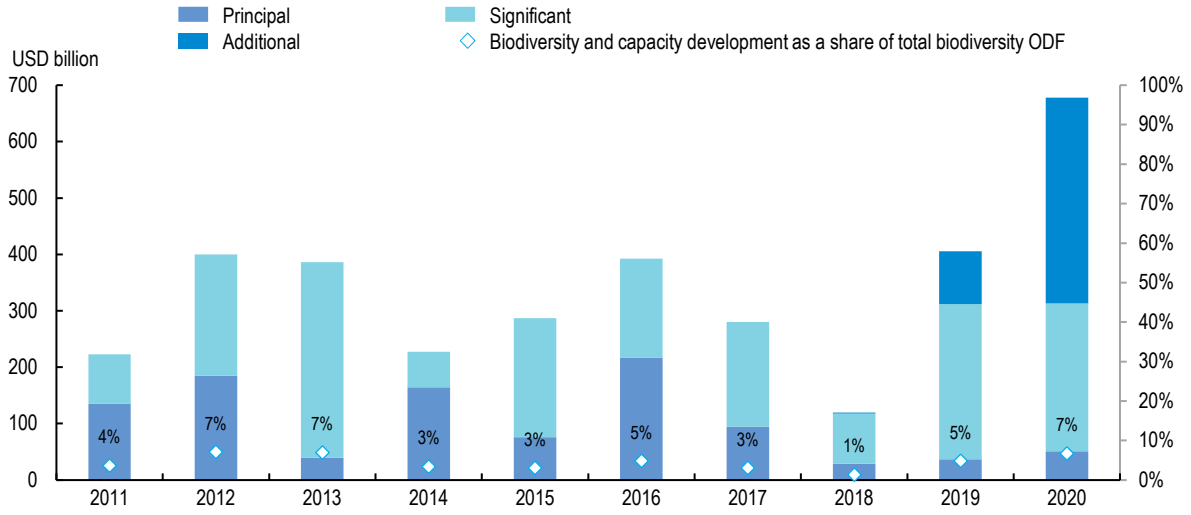
Capacity development interventions for biodiversity are relatively small

Partner countries face the challenge of limited technical, institutional, and personnel capacity when implementing measures for reducing biodiversity loss (Stepping and Meijer, 2018[86]) and in accessing biodiversity-related development finance (CBD, 2020[87]). ODF can help cover these capacity gaps in developing countries, e.g. by supporting the compilation of natural capital accounts and applying natural capital accounts to decision making (Dasgupta, 2021[88]); developing frameworks to cease overfishing, and illegal, unreported and unregulated fishing (OECD, 2018[19]); developing national and/or sub-national strategies, safeguard systems and other pre-requisites to implement REDD+ (Parrotta et al., 2022[47]); supporting indigenous peoples and local communities to tap into and absorb more funding (Rainforest Foundation Norway, 2021[42]); or enabling forestry capacity development through partnerships with traditional knowledge-holders, training and education (FAO, 2022[14]). The literature also highlights the important needs of partner countries in training staff to collect data, develop data monitoring and management plans, and assess ecosystem services, as well as educational activities on the importance of biodiversity data (UNDP; Secretariat of the CBD; UNEP-WCMC, 2021[48]). Funding for national research bodies in developing countries that are rich in biodiversity is particularly scarce (Förster, 2022[54]).

Biodiversity-related capacity development activities increased over 2011-20, both in volume and in relative terms (Figure 3.13). Capacity development for biodiversity-related activities primarily targets the provision of know-how in the form of training and research (47%), with more than half of the flows going to environmental and agricultural research in the fields of food security, soil and environmental conditions, sustainable management of ecosystems, accessing marine technical expertise and practical surveillance solutions, and sharing and improving environmental information. The next largest share goes to sector budget support (41%), with almost half the flows supporting environmental policy, administrative management and research to improve the governance and efficiency of public action in the environmental sector and support protected areas national systems. Most DAC members provide capacity development through grants (81%), with important increases in 2019-20 (67%), primarily driven by the EU, France, Australia, the Netherlands and Germany. In relative terms, Greece, New Zealand, the Netherlands and Iceland provided most of their biodiversity-related ODF through capacity development activities.

Figure 3.13. Capacity development finance for biodiversity-related objectives has increased

2011-20 annual average, bilateral commitments, USD million, 2020 prices



Note: A specific methodology was used to identify development finance targeting IWT. For further information see Annex C.

Beyond volumes spent on capacity development, ensuring that action and ambition is effective and sustainable remains a key donor challenge in development co-operation (Casado-Asensio, Blaquier and Sedemund, 2022[89]). Research shows that, in the area of biodiversity and development co-operation, donors ought to look into (a) the collaborative design of capacity development initiatives, (b) monitoring and evaluation of capacity development activities, (c) ensuring longer-term and flexible investments in this area, and (d) building strong relationships with recipients of ODF (Santy et al., 2022[90]).

Tackling illegal wildlife trade is a small, but growing, share of biodiversity-related ODF

Wildlife brings significant environmental, cultural and economic benefits to developing countries, where it can contribute to livelihoods in key sectors such as tourism. In Kenya and Tanzania, for example, wildlife-based tourism represents 12% of GDP, and makes up even larger shares of the economy in Madagascar (13.1%) and Namibia (14.9%) (World Bank, 2019[91]). Illegal wildlife trade (IWT), which is defined as the illegal cross-border trade in biological resources taken from the wild (European Commission, 2016[92]), puts pressure on several wildlife species. The global value of IWT is estimated at USD 48 to 216 billion a year, with estimated tax revenue losses of USD 7-12 billion and ecosystem services economic losses ranging from USD 881 million to USD 1.8 billion (World Bank, 2019[91]).

There is growing momentum in the international donor community to combat IWT (Djomo Nana et al., 2022[93]) and several donors plan to work in this area (Gamso, 2022[94]). A Wildlife Donor Roundtable has been in place, co-ordinated by the World Bank (World Bank, n.d.[95]), since the 2013 COP16 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Decision 16.5) (CITES, 2016[96]).

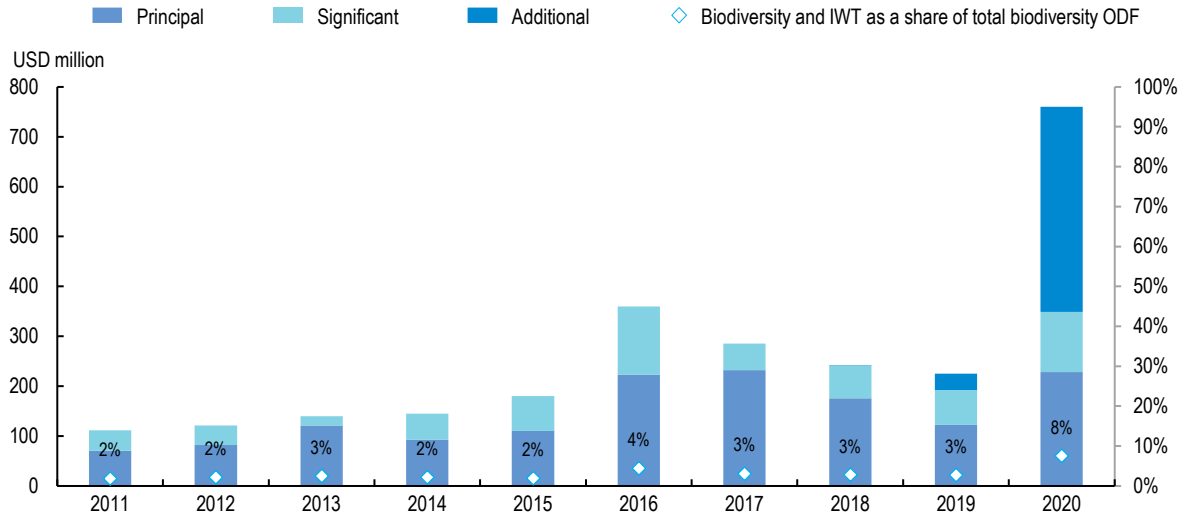
There is little systematic research to determine whether ODF deters IWT and IWT-related activities are difficult to identify within ODF for biodiversity. Indeed, donor engagement, including donor activities that alleviate poverty and unemployment (the two main drivers of IWT) through biodiversity-related ODF, have not always led to a reduction in IWT and appear to have had the greatest impact in countries with

representative institutions (Gamso, 2022[94]). Yet, this formulation should also be noted alongside the demand/offer theory in which greater market demand also drives larger illegal trade in wildlife products (in other words, without such market, there would be no IWT).

For the purpose of this report, a keyword search was applied to bilateral DAC activities identified as biodiversity-related ODF – see Annex C for further information. The findings show that support to combat IWT reached USD 257 million on average annually over 2011-20, representing 3% of biodiversity-related ODF (Figure 3.14). IWT received constant ODF investments over 2011-20 from DAC members, except in 2016 and 2020, when donors more than doubled and tripled respectively their investments, mainly driven by Japan's investments in offshore surveillance, illegal fishing, and human-wildlife conflict. These figures are in line with those of the World Bank (World Bank, 2019[91]), which found that over 2010-18 a number of donors (including bilateral non-DAC members) committed over USD 2.35 billion to combat IWT in 67 African and Asian countries, equivalent to USD 261 million a year on average. Importantly, most activities (except in 2020) are marked as having a 'principal' objective under the biodiversity marker – suggesting that these activities are at the core of biodiversity-related interventions. IWT was targeted mainly by the USA (37%), Japan (20%) and the EU (14%), with flows mainly going to Viet Nam (14%), India (6%) and Indonesia (4%) (Figure 3.15).

Figure 3.14. Support to tackle illegal wildlife trade is on the rise

2011-20 annual average, bilateral commitments, USD million, 2020 prices

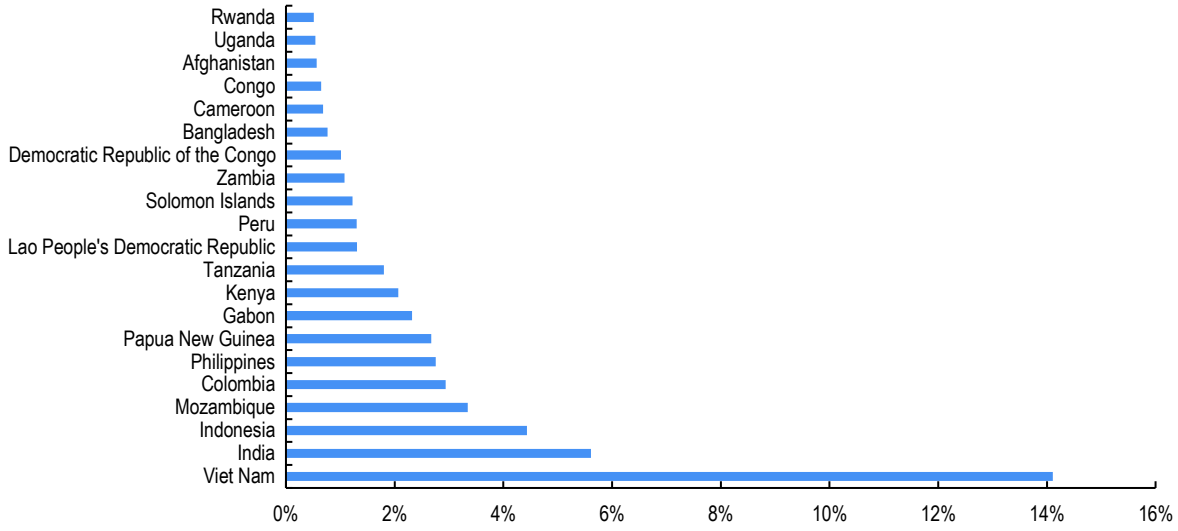


Note: A specific methodology was used to identify development finance targeting IWT. For further information see Annex C.

Despite notable global attention and ODF resources to combat IWT, there is scope to do more, especially in fragile settings, where IWT fuels fragility (OECD, 2022[26]; Gamso, 2022[94]). While Papua New Guinea, Mozambique, Kenya, Tanzania, Lao People's Democratic Republic and the Solomon Islands – all of which are considered fragile (OECD, 2020[31]) – are among the top IWT-related ODF recipients, only 1% of IWT-related ODF targets fragile contexts. As discussed above, fragile settings are highly dependent on natural resources as a source of revenue and development opportunities, but often lack effective governance and law enforcement to manage these assets, which may undermine their conservation and sustainable use. Further, interventions in these contexts need to be carefully planned. For example, enhancing law enforcement efforts may deter IWT, but may also alienate local communities and exacerbate the poverty and inequality that drive poaching (e.g. through the militarisation of law enforcement) (Gamso, 2022[94]).

Figure 3.15. Viet Nam receives the lion's share of official development finance (ODF) for combatting illegal wildlife trade (IWT)

Share of IWT activities in biodiversity-related DAC bilateral ODF, 2011-20 annual average, bilateral commitments, 2020 prices



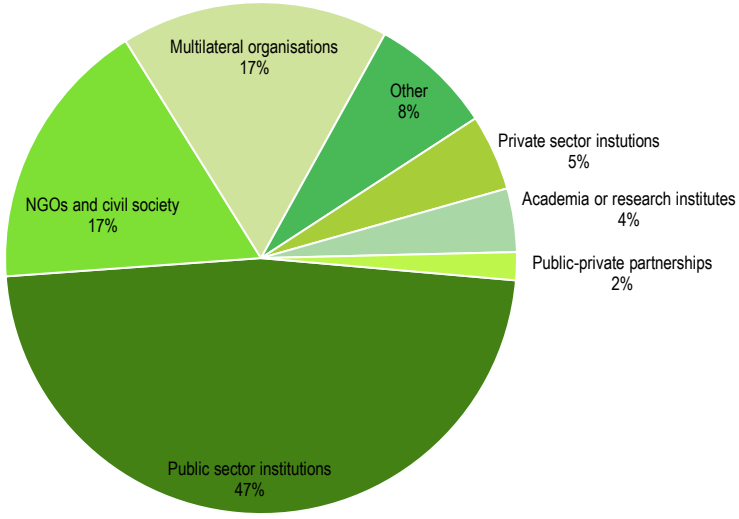
Finally, ODF intended to support economic development may also impact and reduce IWT more than ODF specifically intended to support biodiversity and IWT. This is because ODF at large addresses the underlying factors that generate IWT such as poverty, food insecurity, illiteracy, and unemployment. Further research could investigate the broader impact and causal processes that link ODF on the underlying causes of IWT.

Biodiversity-related development finance is mainly channelled through the public sector

The DAC CRS includes data on delivery channels, which show that the majority of bilateral biodiversity-related ODF is channelled through public sector institutions (47%) and multilateral organisations (17%) (Figure 3.16). NGOs and civil society (17%) are also a main channel of delivery.[2] Academia and the private sector account for 9% of these flows.

Figure 3.16. Public-sector institutions are the main delivery channel for biodiversity flows

2011-20 annual average, bilateral commitments, 2020 prices, full values



Indigenous peoples receive little specific biodiversity-related ODF

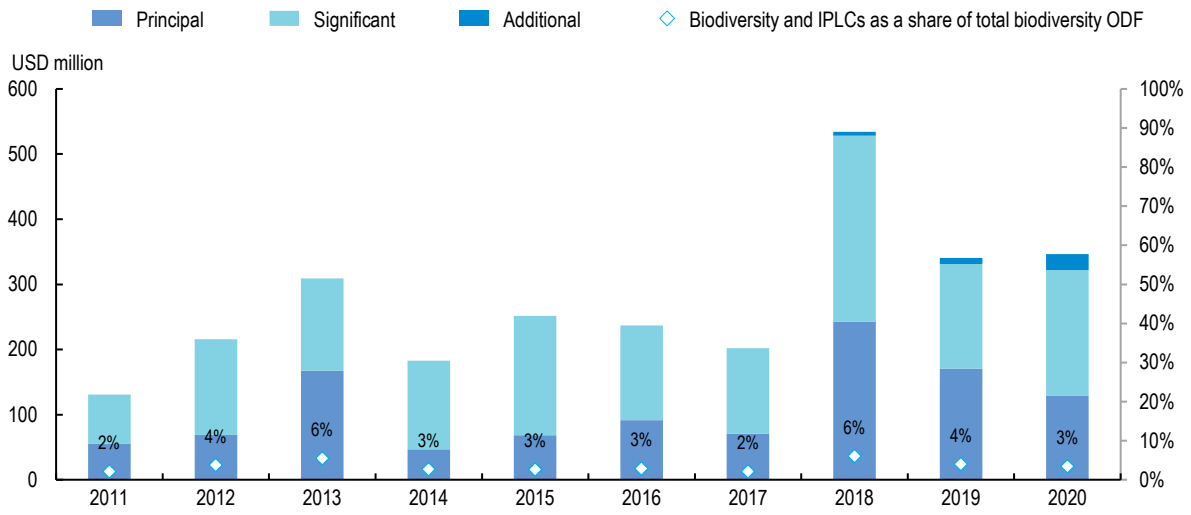
Indigenous peoples and local communities (IPLCs) represent about 5% of the world's population, but the land and territories indigenous people inhabit and are under their traditional stewardship contain much of the world's biodiversity. Their stewardship of these assets and their knowledge can contribute to environmental preservation and biodiversity, notably in key biodiversity areas (WWF et al., 2021[97]; OECD, 2019[98]; Annan-Aggrey et al., 2022[99]; Estrada et al., 2022[100]). They can also help in preventing pandemics (IPBES, 2020[101]; Tsioumani, 2022[102]), and provide benefits in a range of other areas (Oliveira, 2021[103]; Loury, 2020[104]). For example, where the rights of indigenous peoples' to manage forestlands are legally recognised, deforestation rates are lower than on land not under their management (Blackman and Veit, 2018[105]; Arnal, 2021[106]). Carbon emissions emanating from these territories are lower than those from protected areas that are not managed by IPLCs (Walker et al., 2020[107]). Further, 91% of indigenous and community lands are still in good or moderate ecological condition (FAO, 2022[14]). In fact, the collective actions of IPLCs to conserve and sustainably use biodiversity make a substantial non-financial contribution towards the goals of the CBD (Forest Peoples Programme et al., 2020[108]). Yet, IPLCs are often side-lined in biodiversity-related interventions (Parrotta et al., 2022[47]), often with dire consequences for biodiversity (Erbaugh, 2022[109]; Parrotta et al., 2022[47]).

Funding for their actions needs to be commensurate with the scale of their contributions, while safeguarding measures need to strengthen to reduce negative impacts of biodiversity-related ODF on IPLCs (Forest Peoples Programme et al., 2020[108]) and in particular to secure IPLCs in Pacific island countries. There are calls to reinforce their inclusion (WWF et al., 2021[97]), to preserve their traditions, knowledge and customs (Djomo Nana et al., 2022[93]) and, generally, to make the funding fit for purpose (Rights and Resources and Rainforest Foundation Norway, 2022[110]). Doing so can deliver great biodiversity, climate change and sustainable development results, as exemplified by Burkina Faso's first Great Green Wall action plan, which was based on plots and species chosen in conjunction with local communities and scientific research. The potential for land restoration using this approach is estimated at over 10 000 square kilometres, which – if successful – would restore ecosystems and make the country self-sufficient in food (UNCCD, 2022[71]). Other examples can be found in (Integrated Sustainability Solutions, 2020[111]).

Identifying biodiversity-related ODF targeting IPLCs is not easy using the DAC Creditor Reporting System. Hence, for this report a keyword search was used to identify biodiversity-related activities (see Annex C). This found that IPLC-related projects received little ODF for biodiversity over 2011-2020, namely USD 275 million on average per year, representing 4% of DAC members' total biodiversity-related ODF (Figure 3.17). Although not directly comparable, these amounts are in the same order of magnitude to other estimates (Rainforest Foundation Norway, 2021[42]), which found that projects supporting IPLC tenure and forest management received approximately USD 2.7 billion in total over 2011-2020 from bilateral and multilateral donors and private philanthropies (or 270 million per year on average over that period), which suggests the total might be higher than presented here.

Figure 3.17. Indigenous peoples receive a very small share of bilateral biodiversity-related official development finance (ODF)

2011-20 annual average, bilateral commitments, USD million, 2020 prices, full values



Note: A specific methodology was used to identify development finance targeting IPLCs. For further information see Annex C.

Biodiversity ODF for IPLCs was targeted mainly to India (6%), Afghanistan (5%), Peru (4%), Indonesia (4%), Brazil (4%) and Ethiopia (4%). Belgium and Finland targeted the largest overall share of their ODF to IPLCs and biodiversity, while Germany, the United States, and Norway were the largest contributors in absolute terms. Other major donors included the EU, Sweden and Belgium. Most of these activities targeted the strengthening of tenure rights, governance and policy support, as well as broader capacity development activities. These findings are in line with those of the Rainforest Foundation (Rainforest Foundation Norway, 2021[42]). Further research would be needed to explore the effectiveness of these donor approaches in targeting IPLCs – as well as to share lessons and experiences with other providers, such as the GEF, which implemented a Small Grants Programme and Inclusive Conservation Initiative (Forest Peoples Programme et al., 2020[108]).

While a share of the funds channelled through public sector and multilateral organisations may target IPLCs (see , there are transaction costs at each step of an activity, and thus only a fraction of the funds are invested locally or are managed by IPLCs (Rainforest Foundation Norway, 2021[42]). Providing more direct funding to IPLCs could help step up action and ambition on biodiversity. However, such funding also needs to develop IPLCs' capacity to access and absorb finance, not least to meet criteria for due diligence, monitoring and transparency, which are fundamental to the accountability of development finance – and donors themselves have limited capacities to interact with several IPLCs. Some promising initiatives have

been developed, such as the World Bank's EnABLE programme or the Forest Investment Programme's Dedicated Grant Mechanism; or the IUCN's GEF-funded Inclusive Conservation Initiative, which aims to deploy USD 22 million to support IPLCs to secure and enhance their stewardship over an estimated area of at least 3.6 million hectares of territories with high biodiversity and irreplaceable ecosystems.

A similar set of conclusions can be drawn for the limited amount of biodiversity-related ODF targeting civil society organisations, which have been found to lack core and flexible funding that aligns with their own strategic plans and priorities. The prevalence of short-term project funding – accompanied by difficult reporting requirements, the high cost of securing funding, and restrictions on funding eligibility – are seen as barriers for African civil society organisations in particular (Paul et al., 2022[112]); even though conservation fostered by these bottom-up or grassroots organisations tends to lead to greater compliance and project effectiveness (Quintana et al., 2020[113]).

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4 Towards more strategic and effective development finance for biodiversity

Development finance will continue to play a key role during the years to come under the Global Biodiversity Framework, both in terms of quantity (for example, to cover essential domestic contributions to biodiversity) and quality (for example, supporting effective capacity development). However, it will not be able to fill the biodiversity funding gap. It will therefore need to evolve to support domestic policy reforms that unlock additional public and private financial flows, or seek co-benefits with other development co-operation areas, notably climate change. This chapter draws on the trends outlined in the analysis in Chapters 2 and 3, and an extensive review of the literature, to highlight opportunities for development finance to evolve and to become more strategic, coherent and effective in achieving biodiversity goals.

Development finance for biodiversity can become more strategic

As development finance is a minor part of total biodiversity finance, it needs to be used strategically and effectively. In accordance with the provisions of the Addis Ababa Action Agenda, development co-operation is increasingly expected to unlock, catalyse and leverage multiple sources of finance, including from the private sector (United Nations, 2015[1]). These expectations are also echoed in CBD assessments (CBD, 2020[2]). The literature reviewed for this report sees a more strategic role for development finance for biodiversity, whereby it contributes to:

- Helping developing countries reassign expenditures towards biodiversity-related purposes (CBD, 2020[2]) and reduce additional restoration efforts, e.g. by reforming and removing environmentally harmful incentives, including subsidies (e.g. for fossil fuels or in nature-depleting activities) (OECD, 2022[3]); mainstreaming biodiversity into government financial planning processes (Milner-Gulland et al., 2021[4]; Zoi Network, 2022[5]; Dufief et al., 2022[6]), searching for biodiversity-related co-benefits, notably through investments in nature-based solutions; and supporting other mainstreaming approaches across policy frameworks and in specific sector policies, plans and projects (OECD, 2018[7]; Djomo Nana et al., 2022[8]). Generating domestic revenues that promote biodiversity protection (CBD, 2020[2]), e.g. through environmental fiscal reforms and other incentives that promote the sustainable use of biodiversity (OECD, 2021[9]; OECD, 2021[10]; Miller, Agrawal and Roberts, 2013[11]), including well-designed green taxes (Mpofu, 2022[12]). Table 4.1 summarises the finance generated or mobilised by biodiversity-relevant economic incentives.
- Improving standards and regulations to achieve efficiency, and helping to align incentives among actors (CBD, 2020[2]). In their engagement with partner countries, donors can also support the development of biodiversity mechanisms, such as payments for ecosystem services (Miller, Agrawal and Roberts, 2013[11]; Börner et al., 2020[13]; CIFOR, 2021[14]; Schroeder et al., 2020[15]); biodiversity offsets (OECD, 2016[16]); and corporate social responsibility principles and safeguards (Duchelle et al., 2017[17]).
- Catalysing additional public and private finance for biodiversity by supporting access to public international development finance and leveraging partnerships by developing countries, e.g. between bilateral and international funding instruments, such as the Global Environment Facility (GEF; see Box 4.1), the Green Climate Fund (GCF), the Land Degradation Neutrality Fund and other environmental financing instruments to mobilise resources for biodiversity (IPBES, 2018[18]).
- Helping to unlock private finance by lifting market and regulatory barriers and information gaps, promoting the role of the private sector in NBSAPs and Biodiversity Finance Plans, and creating a supportive enabling environment for investment. Creating domestic and international opportunities for private investment in biodiversity can quickly raise finance for conservation (UNEP, 2021[19]).

Table 4.1. Finance generated annually for biodiversity by economic incentive instruments

Finance mechanism	Finance	Coverage	Source
Biodiversity-relevant taxes	USD 7.7 billion per year in tax revenue in OECD countries USD 8.9 billion per year in all countries (2017-19 average)	> 120 countries reporting	OECD PINE database
Payments for ecosystem services	USD 10.1 billion per year (2017-19 average)	Across 10 countries that provided data on finance	OECD questionnaire (circulated to > 50 countries)
Biodiversity offsets	USD 6.9 billion per year	Global	(Deutz et al., 2020[20])

Source: OECD (2021[9]), Tracking Economic Instruments and Finance for Biodiversity, https://www.oecd.org/environment/resources/biodiversity/tracking-economic-instruments-and-finance-for-biodiversity-2021.pdf.

Developing countries are often leading the way in creating and delivering innovative finance solutions and the UNDP has identified over 150 biodiversity finance solutions (including instruments, tools and strategies) that can be used to finance the preservation and restoration of nature in a country (UNDP-BIOFIN, n.d.[21]), seeking to go beyond mobilising new revenues towards realigning expenditures, reducing future costs and delivery (in line with the strategic role of development finance for biodiversity mentioned in bullets above). An efficient way for donors to use development co-operation finance is to focus on these solutions when deploying their traditional financing modalities. First, donors could continue using grants, notably for capacity development activities such as technical assistance, support for policy design, advocacy, and awareness raising, developing organisational and institutional capacity (e.g. setting up funds and facilities dedicated to conservation); promoting effective governance arrangements; and improving biodiversity, ecosystem services and natural capital data (OECD, 2021[10]). This would enable donors to address immediate priorities, such as ensuring the effective management of protected areas, supporting local communities that depend on ecotourism revenues, or maintaining monitoring and enforcement activities (World Bank Group, 2021[22]); as well as reducing food waste, promoting community-based forest management and forest certification, addressing illegal logging and wildlife trade, improving water quality or promoting sustainable fishing practices (IPBES, 2019[23]).

Second, development finance can also be creative in how it uses concessionary, "soft" loans for ecosystem protection or ecosystem-friendly activities.[1] Concessional loans can finance a biodiversity-related activity, or the terms of the loan can be used as a condition to derive biodiversity benefits (e.g. lower interest rates would be the reward for the conservation or sustainable use of natural capital). Increasingly, some donors also resort to results-based or conditional payments to ensure that investments reach their desired outcomes, e.g. (UNDP, 2021[24]). Concessional loans for development are most suitable for investments that have a relatively direct relationship to economic returns. Their use has been suggested e.g. for projects in nascent biodiversity and ecosystem service markets where financial returns are low (Parker et al., 2012[25]). For example, Norway's International Climate and Forest Initiative (NICFI, n.d.[26]) was launched in 2008 pledging up to 3 billion NOK annually to help save the world's tropical forests while improving local livelihoods. NICFI is well known for its results-based bilateral partnership with key forest partner countries (e.g. Brazil, Colombia, Congo, Ecuador, Ethiopia, Guyana, Indonesia, Liberia and Peru) disbursing payments for reduced deforestation verified by satellite imagery (Planet, 2023[27]). Beyond using ODA to create payments for results schemes, NICFI also supports capacity development and improving land use and forest governance efforts.

Box 4.1. The Global Environment Facility is playing a growing role in biodiversity

Since the adoption of the CBD, Parties have relied on the GEF as its financial mechanism, meaning it serves as the principal multilateral mechanism through which bilateral donors programme their ODF for biodiversity. The GEF's recent Programming Directions includes a biodiversity strategy which pursues three objectives: improve conservation, sustainable use and restoration of natural ecosystems; effectively implement the Cartagena and Nagoya protocols; and, increase mobilisation of domestic resources for biodiversity (GEF, 2022[28]). The GEF funding model runs on four-year replenishment cycles, which have increased over time. During the GEF-7 cycle (2018-22), donor pledges reached USD 4.1 billion, of which USD 1.3 billion programmed for biodiversity. During the current 8th cycle (2022-26), a record USD 5.33 billion has been pledged (GEF, 2022[29]).

Biodiversity was already the largest focal area in the GEF portfolio (i.e. accounting for 36 percent), but the proportion of funds directly or indirectly related to biodiversity for the next four years has risen to at least 60 percent (IISD, 2022[30]). The GEF will focus on innovative mechanisms to narrow the finance gap, improve efficiency, and catalyse policy alignment with nature (CBD, 2022[31]). In the context of the GBF, the GEF is asked to continue being an important mechanism for biodiversity-related resource

allocation, given its role in mainstreaming biodiversity into development efforts, and ensuring the effective use of resources; to strengthen the focus on CBD Protocols; and to strengthen the linkages with the GCF to catalyse additional financing for biodiversity (CBD, 2021[32]). Moreover, the GBF resource mobilisation strategy calls on the GEF to establish, in 2023, and until 2030 unless the Conference of the Parties decides otherwise, a Special Trust Fund to support the implementation of the GBF ("GBF Fund"), to complement existing support and scale up financing from all sources to ensure its timely implementation (CBD, 2022[33]).

Finally, other development co-operation instruments enable investments in biodiversity conservation by de-risking investments in this area. For example, donors support the development, scaling, and innovative application of financial instruments which blend commercial and concessional finance (Tobin-de la Puente and Mitchell, 2021[34]); support environmental or conservation trust funds (Parker et al., 2012[25]; Berghöfer et al., 2017[35]); co-finance collaborative management partnerships for protected areas, including with private philanthropy and impact investors (World Bank, 2021[36]; Zoi Network, 2022[5]); use a range of other financial instruments such as green, blue, resilience or conservation bonds, credit guarantees or policy insurance and catastrophe bonds (OECD, 2020[37]; Standing, 2021[38]); design sovereign debt restructuring schemes and debt-for-nature swaps that reduce a country's debt and deliver biodiversity objectives (Box 4.2); as well as facilitate exchanges to promote a deeper understanding on access and benefit-sharing from the use of digital sequence information on genetic resources.

Box 4.2. Recent bond schemes with biodiversity objectives

Green and sustainability-linked bonds have increased exponentially in recent years. Indebted countries are provided with more favourable loan-repayment terms if they commit to spending the cash saved on conservation efforts. Although biodiversity had not been primarily targeted by such bonds, the situation has started to change thanks to the support of the UN, multilateral donors and civil society. For example, in 2019, under 0.7% of the total green bond issuance was allocated to biodiversity conservation; this had increased to 4% in 2021 (World Bank, 2021[39]; Tobin-de la Puente and Mitchell, 2021[34]; Standing, 2021[38]). Guidance to support partner countries in using these financial instruments has also been produced recently, e.g. through the International Finance Corporation's Green Bond Technical Assistance Programme (IFC, 2022[40]).

Several recent bond schemes with biodiversity objectives show the potential of these instruments. This is the case for the first sovereign blue bond, issued in 2018 by the Seychelles to support sustainable marine and fisheries projects (World Bank, 2018[41]). It raised USD 15 million with the support of the World Bank, and the experience has now been replicated by the European Investment Bank and the European Bank for Reconstruction and Development (United Nations Environment Programme Finance Initiative, 2021[42]). Another example is the Rhino Impact Investment Project, which aims to mobilise new private capital for conservation. The project is supported by the GEF, the United Nations Development Programme (UNDP), the United Kingdom and private philanthropy. In addition, the International Bank for Reconstruction and Development (IBRD) raised USD 150 million for a 'pay-for-success' Wildlife Conservation Bond (also known as the Rhino Bond) to support sustainable development projects. Unusually, this five-year bond will not pay a coupon to investors. Instead, IBRD will make a payment of USD 10 million to two South African conservation areas with meaningful populations of the endangered black rhino. If rhino conservation is successful, investors will receive the equivalent to the bond principal in addition to a 'conservation success payment', which is linked to the growth rate of rhino populations, funded by grants from the GEF, alongside co-financing (e.g. by the Zoological Society of London, Oak Foundation, UK Aid through the IWT Challenge Fund, and Fauna and Flora International) to support management, technical, political, legal and administrative support throughout the implementation of the project. The GEF acts as the outcome payer in this transaction,

providing financial backing and enhancing the risk/return profile to attract further investors. This structure transfers the outcome risk to private investors, who receive nothing if the rhino population does not grow (World Bank, 2022[43]).

Donors have also engaged in developing insurance policies, also known as catastrophic or CAT-bonds (Standing, 2021[38]), which are a form of debt issued by a country through a special purpose entity to transfer risks to capital market investors. If a climate hazard happens, some portions of the funds are placed in a special purpose entity available to the country and the bond defaults (OECD, 2021[44]). CAT-bonds have been used to conserve marine ecosystems and adapt to climate change through nature-based solutions, e.g. most recently in Jamaica (World Bank, 2021[45]).

Finally, donors also target biodiversity conservation as a co-benefit on other government issuance. For example, in 2016 the Seychelles negotiated a partial buyback of debt through a debt-for-nature swap, which offered Paris Club creditors a discount in exchange for a commitment to improve marine conservation and climate change adaptation efforts (OECD, 2020[46]). More recently, Belize, with support of The Nature Conservancy and Credit Suisse, issued a 20-year USD 364 million bond to repurchase existing debt and committing USD 23.5 million towards marine conservation and coastal conservation projects. The country also committed to protecting 30% of its waters by 2026 through the bond deal. As a result, the transaction unlocked USD 180 million over a 20-year period for conservation projects in Belize, quadrupling the country's pre-existing ocean conservation budget (IMF, 2022[47]). Another recent example is provided by the Fiji Blue Bond, promoted by Fiji, the UNDP, the UN Capital Development Fund and the UK, which will help to support marginalised groups such as fishers and micro-marine businesses, promote disaster risk management, climate change adaptation and resilience efforts, including through ecosystem-based approaches and establishing marine protected areas over 2022-32. Further examples in (Thompson, 2022[48]) highlight the importance of donor de-risking instruments, provided they are carefully designed. Donors should also consider their high transaction costs and long timeframes, as well as broader debt sustainability issues on the part of recipient countries (Tobin-de la Puente and Mitchell, 2021[34]).

Overall, donor financing remains essential to ensure the effective implementation of biodiversity policies in developing countries (IPBES, 2018[18]). If well designed, donor activities – whether grants, loans or other instruments – can protect biodiversity while simultaneously reducing poverty, helping to tackle climate change (Berghöfer et al., 2017[35]) and supporting actions with multiple benefits for societal goals (Förster, 2022[49]). To achieve this, donors may need to increase their ODF and the range of modalities deployed for biodiversity, and also enhance the effectiveness of their investments (CBD, 2020[50]).

More Development Assistance Committee (DAC) members can mainstream biodiversity in their development co-operation strategies

As seen, DAC members individually and collectively have committed to supporting biodiversity through their development co-operation activities. To what extent are these commitments reflected in current DAC member policy frameworks? Table 4.2 provides an overview of DAC member frameworks for biodiversity, noting whether they seek for co-benefits with climate change (see Box 3.1 in Chapter 3), and listing recent development finance pledges and announcements made in support of biodiversity and nature. This overview gives a first, high-level approximation of how DAC members undertake biodiversity-related activities – and provides several preliminary conclusions.

In terms of biodiversity frameworks, the overview shows that although DAC members often mention biodiversity as an overarching strategic direction of their development co-operation, only Canada, the EU, France and the United Kingdom have dedicated biodiversity policies. One good example is the European Union's Biodiversity for Life initiative, which brings together all EU-funded development co-operation

projects and programmes that target biodiversity under the same umbrella framework, with the aim of ensuring better coherence and co-ordination (CBD, 2020[2]). The UK's International Development Strategy includes a high-level commitment to ensure that its ODA becomes "nature positive", aligning it with the international goal to halt and reverse biodiversity loss by 2030, and with the GBF.

The integration of biodiversity into development co-operation is limited according to (OECD, 2021[51]). Notwithstanding, several DAC members have started looking at how biodiversity and nature can be reconciled and integrated with broader development co-operation efforts, including those linked to climate change. Sweden's recent experience, for example, shows that additional work was needed even in a country where biodiversity was relatively well mainstreamed. Sweden's Special Government Assignment on Biodiversity and Ecosystems aims at strengthening and deepening work related to biodiversity and ecosystems throughout Sida's operations over 2020-23, by seeking coherence and synergies with climate change and other thematic areas (e.g. governance and gender equality); strengthening on-going biodiversity interventions to learn from operations that deliver results, while exploring opportunities for co-financing, notably to support Africa (e.g. through the Africa 100 Initiative); intensifying dialogue with multilateral and European partners and other actors; and mobilising funding, notably through the use of guarantees (Sida, 2021[52]).

Table 4.2. Development Assistance Committee (DAC) member biodiversity frameworks are not always backed up by official development finance (ODF) pledges

	Framework to address biodiversity	Climate and biodiversity co-benefits	Biodiversity-related development finance announcements
Australia	Biodiversity is part of Climate Change Action Strategy (2020-25), which is underpinned by biodiversity protection, through nature-based solutions.	Yes	Australia plans to increase its international public finance for nature through 2030. This builds on Australia's existing commitment to provide AUD 2 billion in climate finance over 2020-25 period, including for environment and biodiversity projects.
Austria	The Austrian Development Policy (2019-21) lists protecting and preserving the environment, including biodiversity and ecosystems, as one of five thematic priorities. The new Policy has biodiversity at its core. In addition, Austria's Biodiversity Strategy 2030+ also refers to development co-operation for biodiversity.	Yes, aims at co-benefits for climate change and biodiversity	The Austrian Federal Ministry for European and International Affairs has set a goal of 50% for the environment in projects and programmes under the country and regional funding instruments for 2021, which will increase to 55% in 2022 and 60% from 2023 onward; discussions are on-going to increase the share of biodiversity-related funds in development co-operation.
Belgium	The Law on Belgian Development Cooperation (2013) stipulates that the protection of the environment and natural resources, including the battle against climate change, drought and global deforestation, is one of Belgium's priority themes. Belgium's Capacities for Biodiversity and Sustainable Development programme follows a 10-year strategy (2014-2023) focusing on capacity development in the field of biodiversity conservation and sustainable development, linked to poverty reduction.	Yes	No, as Belgium has no sector, thematic or country envelopes.
Canada	Biodiversity is part of Canada's climate change policy and Global Affairs Canada's Environmental Integration Process.	Yes	Doubling of international climate finance commitment to CAD 5.3 billion over 2021-26, including a commitment to dedicate 20% of this funding to projects that leverage nature-based climate solutions and projects with biodiversity co-benefits. Canada will provide a new contribution of CAD 350

	Framework to address biodiversity	Climate and biodiversity co-benefits	Biodiversity-related development finance announcements
			million to support developing countries – home to the vast majority of the world's biodiversity – to advance conservation efforts.
Czech Republic	The Development Co-operation Strategy (2018-30) includes biodiversity as a cross-cutting priority.	No	No
Denmark	Denmark's Strategy for Development Cooperation 2021-25 refers to biodiversity as a key priority and aims to promote nature-based solutions.	Yes	The Danish government has decided that 30% of its ODA will be allocated to green initiatives, of which 5% will go to biodiversity and the environment.
European Union	Biodiversity is part of the EU's Biodiversity Strategy 2030, with implications for biodiversity-related development co-operation. In addition, biodiversity is part of other frameworks and mainstreamed across development co-operation, e.g. the Neighbourhood, Development and International Co-operation Instrument (2021-27), and the Biodiversity for Life Initiative.	Yes	The EU is doubling its ODA funding and has pledged EUR 7 billion for biodiversity over 2021-27, especially for the most vulnerable countries.
Finland	The Report on Development Policy across Parliamentary Terms includes "climate change, biodiversity and the sustainable management and use of natural resources:" as one of five priority thematic areas.	No	No commitment, but an acknowledgment of the need to do more for biodiversity in the future.
France	AFD's Strategy for Territorial and Ecological Transition for 2020-24 includes a Biodiversity Roadmap 2019-22. In addition, the French Global Environment Facility supports climate, environment and biodiversity projects in developing countries.	Yes	France announced it would double its bilateral ODA funding for biodiversity to reach EUR 1 billion per year by 2025, and to dedicate 30% of its climate-related development finance to be nature positive.
Germany	Biodiversity is a priority as well as a cross-cutting issue in Germany's Development Co-operation, according to its Strategic Plan 2011-20. Germany's International Climate Initiative also aims, inter alia, at finding comprehensive solutions for climate change and biodiversity loss; while GIZ and KfW also have integrated biodiversity into their frameworks.	Yes	Germany will increase its biodiversity funding to EUR 1.5 billion by 2025, as part of the increase of its international climate budget to 6 billion euro annually by 2025 at the latest.
Greece	Greece's National Biodiversity Strategy (2014-29) includes development co-operation. Biodiversity is also part of other frameworks, e.g. Greece's National Adaptation Strategy (2016), which refers to ecosystem-based adaptation.	Yes	No
Hungary	Hungary's International Development Cooperation Strategy for 2020-25 mentions environmental and climate action (but not biodiversity).	No	No
Iceland	Iceland´s Policy for International Development Cooperation 2019-23 defines the environment as both a specific and cross-cutting issue (but does not mention biodiversity).	No	No
Ireland	Ireland's National Biodiversity Action Plan notes that biodiversity will be a component of Ireland's development co-operation programme; and that support to, and co-operation with, developing countries will take into account biological diversity and the CBD objectives.	No	No, but Ireland's climate target (of spending at least EUR 225 million by 2025) is likely to include consideration of biodiversity co-benefits and potential opportunities for increasing funding to biodiversity through bilateral and multilateral channels.
Italy	Italy's triennium development programme 2021-23 includes biodiversity, while Italy's Climate Change Adaptation Programme also refers to nature-based solutions.	Yes	No
Japan	JICA's climate change co-operation strategy highlights the importance of enhancing conservation and the management of forests and other ecosystems. JICA also highlights ecosystem-based disaster risk resilience in the Strategic Plan 2014-20, under the Nature Conservation Sector. Finally, the Japan Biodiversity Fund supports the implementation of NBSAPs and other capacity development	Yes	Japan has pledged JPY 71.4 billion to the GEF 8 and JPY 1.8 billion to the second phase of the Japan Biodiversity Fund. Furthermore, Japan will pledge JPY 117 billion for biodiversity over fiscal year 2023 to 2025. Concerning global forestry conservation, Japan will provide financial

	Framework to address biodiversity	Climate and biodiversity co-benefits	Biodiversity-related development finance announcements
	activities in the area of biodiversity.		assistance worth approximately USD 240 million, utilising advanced technologies and working in collaboration with the international organisations.
Korea	Korea's Green New Deal ODA Strategy, Post-COVID-19 Strategy and Green Economic Development Cooperation Fund Strategy all emphasise biodiversity and co-ordination across issues, including climate change.	Yes	Korea is committed to raising the share of its ODA for green activities above the average of DAC countries by 2025. As for loans, Korea will triple the amount of its loans for green projects by 2025 and double the share of green loans by 2025.
Luxembourg	Luxembourg's Nature Protection National Plan (2022-30) includes a strategy for biodiversity-related international collaboration (2022-26). Luxembourg's General Co-operation Strategy, its Environment and Climate Change Strategy, and the International Climate Finance Strategy (2021-25), as a key pillar and through nature-based solutions.	Yes	Luxembourg will double international finance investments for biodiversity by 2026.
The Netherlands	The Netherlands' policy for Foreign Trade and International Co-operation, adopted in 2018, addresses the integration of gender and biodiversity considerations in activities focused on climate, water and food security.	Yes	In line with the 50% increase of its annual contribution to GEF-8, the Netherlands announced its commitment to increase its total biodiversity-related development finance by 50% in 2025, resulting in a target of EUR 150 million for 2025.
New Zealand	New Zealand's Strategic Intentions (2020–24) refer to promoting the GBF and marine biodiversity.	Yes	No
Norway	Norway's International Climate and Forest Initiative aims at the reduction and reversal of tropical forest loss to enable a stable climate, preserve biodiversity and achieve sustainable development.	Yes	Norway currently provides NOK 3.5 bn annually in development assistance through our international forest and climate initiative. Norway will significantly increase its nature finance from all sources towards 2025.
Poland	The Polish Multi-annual Development Co-operation Programme (2021-30) and the Polish Multilateral Development Co-operation Programme (2021-30) both mention biodiversity and its links with climate change.	Yes	No
Portugal	Portugal's National Strategy for Nature Conservation and Biodiversity 2030 includes a development co-operation component. The new Strategy for Development Co-operation (2021-30) also includes priorities on biodiversity and makes biodiversity a key cross-cutting issue.	Yes	No
Slovak Republic	The Slovak Development Co-operation Strategy has a cross-cutting theme on the "Environment and climate change" and which includes the sustainable use of natural resources, reversing land degradation and desertification, halting biodiversity loss, protection and restoring ecosystems and their services, and the rehabilitation of degraded ecosystems.	No	No
Slovenia	The thematic priorities of Slovenia's development co-operation include combating climate change, particularly through the sustainable management of natural and energy resources.	Yes	No
Spain	Spain's External Action Strategy (2021-24) highlights biodiversity and the Spanish International Development Co-operation Agency's Action Plan 2021 launched an Ecological Transition Fund to centralise Spain's efforts around environmental sustainability.	Yes	Spain intends to double its international funding for biodiversity, aiming to dedicate at least EUR 550 million of its ODA for biodiversity over the period 2021-2025.

	Framework to address biodiversity	Climate and biodiversity co-benefits	Biodiversity-related development finance announcements
Sweden	The Swedish International Development Agency's Environmental Policy (2020) includes integrating biodiversity throughout all its activities, e.g. through the multilateral system, funding of bilateral partners, and financing of organisations. In 2021, a Special Government Assignment on Biodiversity and Ecosystems aims at strengthening and deepening the work related to biodiversity and ecosystems throughout the agency (2020-23).	Yes	No, but increased financing in 2022 and beyond is expected for biodiversity.
Switzerland	Switzerland's International Cooperation Strategy 2021–24 highlights biodiversity action. At the operational level, the Swiss Agency for Development and Cooperation considers biodiversity as a cross-cutting issue.	Yes, notably ecosystem-based adaptation and eco-DRR.	No
United Kingdom	The UK's International Development Strategy prioritises work on climate change and nature, putting it at the heart of its international development offer. The Strategy also commits to take steps to ensure UK bilateral ODA becomes 'nature positive', aligning with the international goal to halt and reverse biodiversity loss by 2030 and the Global Biodiversity Framework.	Yes	The UK will spend at least GBP 3 billion over 2021/22 to 2025/26 on climate change solutions that protect, restore, and sustainably manage nature.
United States	USAID's Biodiversity Policy guides the agency's work in this area; while biodiversity is mainstreamed across other areas, notably climate change work, including through the agency's Climate Strategy (2022-30) and the Environment and Natural Resources Management Framework.	Yes	The United States has pledged USD 600.8 million to GEF-8. No global commitment, but new activities announced in this area, e.g. a programme to address the drivers of illegal, unreported, and unregulated fishing in the Pacific Islands region and a new Sustainable Fish Asia project.

Source: (OECD, 2021[51]; Kingdom of Belgium, 2022[53]; Government of Canada, n.d.[54]; Government of Canada, n.d.[55]; Government of Canada, n.d.[56]; European Union, 2021[57]; European Commission, 2022[58]; BMZ, 2022[59]; BMZ, 2021[60]; BMZ, 2021[61]) (BMZ and BMU, 2018[62]; Berghöfer et al., 2017[35]; Sida, 2021[52]; UK Government, 2021[63]; COP26 Presidency, 2021[64]; UK Government, 2022[65]; USAID, 2022[66]; AECID, 2022[67]; AECID, 2021[68]; Gobierno de España, 2021[69]) (Ministry of Foreign Affairs of Denmark, 2021[70]; Ministry of Foreign Affairs of Finland, n.d.[71]; Ministry of Foreign Affairs of Finland, 2021[72]; Finnish Government, 2021[73]; AFD, n.d.[74]; Ministry of Foreign Affairs and Trade, 2020[75]; Ministry of Foreign Affairs, 2019[76]; Department of Culture, Heritage and the Gaeltacht, 2017[77]; Ministry of Foreign Affairs of Japan, 2021[78]; Department of Public Expenditure and Reform, 2021[79]) (Ministry of Foreign Affairs of Italy, 2021[80]; Ministry of Foreign and European Affairs of the Slovak Republic, 2019[81]; Republic of Slovenia, n.d.[82]; JICA, n.d.[83]; JICA, 2021[84]; JICA, 2014[85]; Government of Portugal, 2022[86]; Gilbert, 2022[87]; Luxembourg, 2022[88]; Joint Donor Statement, 2022[89]) (Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie, 2022[90]).

As regards biodiversity-climate links, biodiversity objectives are part of all DAC members' climate change and environment strategies or action plans, in one way or another. For instance, the UK's International Development Strategy prioritises work on climate change and nature, putting it at the heart of its international development offer. The UK 2030 Strategic Framework on International Climate and Nature Action will further define the UK Government's vision and long-term role on these issues (UK Government, 2022[65]). Canada also recognises that urgent action is needed to address the interconnected crises of climate change and biodiversity loss, which disproportionally affect the poorest and most vulnerable, and intends to increase supporting nature-based solutions to climate change and to support sustainable development objectives more broadly (OECD, 2021[51]). Norway has also been integrating biodiversity as a key component of its REDD+ programme from the start in 2008, becoming one of the three overall goals in the revised strategy of 2019. At the same time, the growing interest among donors has yet to be matched with concrete action, practical tools or training, including in mobilising resources at scale through nature-based solutions. Moreover, caution will be needed to ensure that the increasing interest in nature-based solutions does not end up "climatising" the biodiversity agenda (see Box 3.1 in Chapter 3), thus diverting attention away from broader biodiversity values (Parrotta et al., 2022[91]).

Finally, 10 DAC members (e.g. Canada, Denmark, EU, France, Germany, Japan, Luxembourg, Netherlands, Spain, United Kingdom) have put forward biodiversity-related development finance pledges to support developing countries in their action on biodiversity and in the implementation of the GBF Table 4.2, in line with CBD Article 20 on Financial Resources (CBD, 2006[92]), as well as previous UNFCCC COP26 announcements made to implement the Paris Agreement on climate change (COP26 Presidency, 2021[64]) including USD 1.7 billion, from 2021 to 2025, to secure forest tenure rights and the role as guardians of nature of IPLC's and other forest dependent communities (COP26 Presidency, 2021[93]) In addition, four DAC members have announced synergistic pledges for climate and biodiversity, notably emphasising the role of nature-based solutions (e.g. Canada, France, Germany, United Kingdom).

Furthermore, at CBD COP15, 14 DAC members issued a Joint Donor Statement on International Finance for Biodiversity and Nature (Joint Donor Statement, 2022[89]). The Statement notes these members' intention to continue to collectively increase international biodiversity finance (and includes a number of pledges as in Table 4.2, as well as contributions to the GEF) and align relevant international development flows, commensurate with the ambition of the GBF. The Statement is in part a response to the 10 Point Plan for Financing Biodiversity, an initiative launched by Ecuador, Gabon, the Maldives and the UK to provide a blueprint for bridging the current biodiversity financing gap (Department for Environment, Food and Rural Affairs, 2022[94]) and which also specifies the role donor finance must play and has also been endorsed by 10 DAC members.

Further work would be needed to understand how DAC members use safeguards or Strategic Environmental Assessments in their work, and how they mainstream biodiversity across their portfolios, as well as to review how DAC members are structured to deliver on these frameworks and their commitments, including the Joint Donor Statement and the DAC Declaration, more generally. While there are indications that members with large impacts on biodiversity tended to have high positive contributions to conservation through funding, there is room for members to be more ambitious and to improve their budget allocation processes based on their negative impacts on biodiversity (Tomoi et al., 2022[95]). Moreover, as DAC members seek to mainstream biodiversity into their development co-operation strategies, additional attention should be taken to assess whether further mainstreaming can be positively derived from and linked to more funding.

Beyond the DAC, other donors and South-South and triangular co-operation providers also have a role to consider biodiversity in their development activities as well as how to align such co-operation with the recently adopted GBF. Since the CBD was agreed in 1992, 11 countries moved from a low- or middle-income group to a high-income group, according to the World Bank classification. While this classification includes DAC members such as Greece, Portugal, Poland or Korea – it also includes other providers such as Chile, Saudi Arabia, Kuwait, Qatar or the United Arab Emirates. Further, another 24 countries moved from a low-income group to a middle-income group over that same period, including China, Peru or Turkey, all of which have development or South-South Co-operation programmes. While national capabilities need to be considered, halting biodiversity loss will require the contribution from these other countries (Tomoi et al., 2022[95]), which could use the OECD database to report or enhance their reporting (e.g. using the Rio markers).

Support to biodiversity can be systemic and coherent

ODF can be used to support developing countries in aligning incentives and finance towards biodiversity-related goals and objectives. Moreover, development finance providers can support partner countries to scale up the use and ambition of economic instruments (i.e. positive incentives) that promote biodiversity conservation and sustainable use. These instruments (including biodiversity-relevant taxes, fees and charges, tradable permits, biodiversity offsets, payments for ecosystem services, with environmental and social safeguards (CBD, 2022[96])) serve to reflect the true value of biodiversity in economic decision

making, provide continuous incentives for more environmentally-sustainable patterns and are able to generate revenue or mobilise finance for biodiversity (OECD, 2021[97]). Failure to address biodiversity from a systemic, whole-of-government perspective could significantly undermine developing countries' efforts to implement their biodiversity objectives, as well as sustainable development at national and global levels.

It is of high priority to identify and reform potentially environmentally harmful support across a range of sectors, including development co-operation for energy, agriculture and fisheries, averting the most detrimental and market distorting types of support, so that government-funded actions to conserve and sustainably use biodiversity are not undermined by government incentives that lead to environmentally harmful activities. Global government support that is potentially harmful to biodiversity is estimated to be at least USD 800 billion annually, including fossil fuels (OECD, 2021[10]).

Multilateral institutions can do more to embed nature into their analysis, policy dialogue and operations

Momentum is building for further multilateral action on biodiversity in the future. Collectively, multilateral development banks issued a joint statement at COP26 on Nature, People and Planet (Box 4.3). As noted, a core commitment of the Statement is to create institutional strategies to mainstream nature and biodiversity across MDB investments, operations, and advisory services. Some MDBs have taken steps to flesh out nature-based solutions in their operations (Finance for Biodiversity Initiative, 2021[98]). For example, the Asian Development Bank (AsDB) has developed internal guidance as part of a larger, systematic and operational commitment to scaling up nature-based solutions (Matthews and Ocampo Dela Cruz, 2022[99]). It is rolling out these solutions within its disaster risk and climate adaptation investment programmes in the water, urban infrastructure and transport sectors. Other multilaterals are reviewing their policies to ensure they are aligned with nature. For example, the Inter-American Development Bank mainstreams nature and biodiversity considerations into its Country Strategies, which help define development and investment priorities for four-to-five year periods (IDB, n.d.[100]); while the Bank creates an institution-wide plan to mainstream natural capital and biodiversity. The African Development Bank has also published a report that explores ways to mobilise finance for African countries effectively, while advancing climate and nature goals to support Africa's "nature-positive development agenda" (AfDB, 2022[101]). Finally, MDBs are setting targets on biodiversity and nature (WWF and The Biodiversity Consultancy, 2021[102]; Multilateral Development Banks, 2021[103]). For example, the Inter-American Development Bank has set a 40% target for climate and green finance for 2025 (IDB, 2022[104]); and the EBRD a green finance target ratio of 50% by 2025 (EBRD, 2020[105]; EBRD, 2020[106]).

Multilateral institutions are also assessing the extent to which their finance has been promoting biodiversity objectives. For instance, IFAD has conducted a stocktake of recent projects to understand the impact on biodiversity of its funding. Out of 66 projects surveyed, one-third were directly relevant to biodiversity, while another 40% had at least some activities linked to biodiversity (IFAD, 2021[107]).

Box 4.3. The Joint Statement on Nature, People and Planet commits multilateral development banks to greater action

Multilateral development banks committed at the 2021 United Nations Climate Change Conference (COP26) to mainstream nature further into policies, analysis, assessments, advice, investments, and operations, in line with their mandates and operating models (Multilateral Development Banks, 2021[103]). They committed to do this through:

1. Greater leadership.
2. Tackling the drivers of nature loss by fostering and making "nature positive" investments and greening finance.
3. Fostering national and regional synergies.
4. Looking for opportunities to step up nature financing and to mobilise or leverage private finance for investments in nature, including nature-based solutions for mitigation and adaptation with co-benefits for nature and people; support countries and the private sector to identify and access appropriate forms of finance from multilateral climate and environment funds; and leverage additional ordinary capital and private sector finance for nature-positive investments.
5. Valuing nature to guide decision making.
6. Enhancing public reporting on efforts and initiatives to mainstream nature in analysis and operations.

Several initiatives have evolved to support the delivery of the Joint Nature Statement. For example, the creation of a MDB Biodiversity and Nature Working Group was announced at COP27 (EIB, 2022[108]) to step up action on protecting nature and reversing biodiversity loss, as well as discussions to develop a joint methodology for tracking and reporting 'nature positive' investments in line with the new Global Biodiversity Framework (GBF) (IISD, 2022[109]). In addition, during COP15, MDBs have also communicated individual commitments to further support the implementation of the GBF. In particular, the Inter-American Development Bank has committed to increase nature positive finance and to set a green finance target (IADB, 2022[110]), while the EIB has committed to align its operations with the goals of the GBF, scale up nature positive investments, and announce concrete initiatives, programmes and partnerships with commitments to supporting biodiversity investments and/or biodiversity co-benefits (EIB, 2022[111]).

All multilateral institutions also have safeguards to ensure no harm is done to biodiversity through their operations. Institutions such as the World Bank, the EBRD and the GCF have adopted International Finance Corporation (IFC) Performance Standards, or else developed their own standards based on them (Rode et al., 2019[112]).[2] These standards provide detailed guidance on avoiding or reducing adverse impacts on biodiversity and living natural resources. Yet, while that IFC Performance Standards sets the global standard, there is limited evidence on how institutions implement it. For example, research has shown that safeguards often take the form of a checklist to prevent detrimental actions, rather than to help uncover nature-related risks in institutions' portfolios, including impacts and dependencies on nature (WWF and The Biodiversity Consultancy, 2021[102]). Moreover, they do not systematically collect information on the implementation of required offsets. Reviews also conclude that institutions could make greater use of strategic environmental assessments and apply integrated spatial planning (CBD, 2020[50]).

Despite the progress outlined in this report, there are growing calls for multilateral institutions to review their mandates, capitalisation and governance so they can protect nature further, fulfil their core purpose of sustainable development (Finance for Biodiversity Initiative, 2021[98]), and align with the goals of the CBD (CBD, 2020[50]; Finance Watch, 2019[113]). Multilateral institutions could look at further mainstreaming

biodiversity into their overall strategies, by "embedding nature into their analysis, policy dialogue and operations", as recommended by the G7 (G7 2030 Nature Compact, 2021[114]). Implementing such changes needs to build upon the added value of multilateral donors – yet progress is partially hampered by the limited information on multilateral donor biodiversity-related ODF volumes, trends and priorities. Multilateral institutions could also do more to mobilise private finance for biodiversity. For example, they could boost the pipeline of investment opportunities for nature in credit market segments in which commercial banks are not fully engaged, as well as mainstreaming biodiversity into risk assessments of private sector actors (CBD, 2020[50]). In this regard, the World Bank Group's *Mobilizing Private Finance for Nature* report notes how MDBs are in a position to create new mechanisms for biodiversity finance, promote blended finance solutions for biodiversity and develop accountability and reporting standards for biodiversity (World Bank Group, 2020[115]).

The resource mobilisation strategy for the GBF calls for a reform of multilateral development banks and international finance institutions, including investment banks, to make them fit for purpose in supporting implementation of the Framework (CBD, 2022[33]). In that sense, the strategy also calls for these organisations to identify and report investments in their portfolio that contribute to achieving the objectives of the Convention, and the goals and targets of the GBF, taking into account relevant international guidance and good international practice, among other elements (i.e. aligning their portfolios and flows with the GBF, simplifying access to finance, increasing biodiversity-related funding).

Efforts to engage the private sector in conserving and sustainably using nature are still insufficient

The international community aims to increase the mobilisation of private finance through official interventions (CBD, 2020[2]; Berghöfer et al., 2017[35]) – although such approaches may also have limits (Finance Watch, 2019[113]) and there are concerns about the 'financialisation' or 'commodification' of the biodiversity agenda (Rode et al., 2019[112]).

Through the use of the approaches described in Chapter 1 ("The private sector could become a vital source"), blending public and private finance can be used, for example, to finance small-scale conservation or restoration projects that may not be readily profitable, as well as larger or more bankable projects that need to be scaled up. For example, the recently created Land Degradation Fund was initiated by the UNCCD and Mirova, a management company that offers sustainable investment solutions to its clients, to invest in sustainable agriculture, forestry, infrastructure and ecotourism (UNCCD, 2022[116]). Mirova's Sustainable Ocean Fund includes EIB, IADB and USAID, and uses a public guarantee to secure substantial commitments of private capital for biodiversity conservation. Another example is the Collaborative Management Partnerships approach (Box 4.4), as well as the Global Fund for Coral Reefs (GFCR, n.d.[117]), the Global Fund for Coral Reefs Investment Window (GCF, n.d.[118]) and the Coalition of Private Investment in Conservation (CPIC, 2023[119]).

Box 4.4. The World Bank's Collaborative Management Partnerships

Collaborative Management Partnerships (CMPs) are a type of public-private partnership used in the conservation sector to improve protected area management, in addition to facilitating inclusive rural development and green growth. They involve a protected area authority (government, private, community) entering a contractual arrangement with a partner (private or NGO) for the management of a protected area. Through this public-private partnership, the protected area authority devolves certain management responsibilities – and in most cases funding obligations – to the partner. Funding from CMPs comes from bilateral and multilateral donors, private foundations, lotteries, foundations

associated with zoos, philanthropists and individual donors, and the private sector through corporate foundations and corporate social responsibility programmes.

The development or improvement of a governance structure as part of the CMP creates additional oversight and a layer of accountability that provides assurance to donors about proper budget management. Some donors increasingly require a CMP to be in place before providing funding for protected area management. In Africa, 15 governments have established 40 co-management and delegated CMPs with 13 NGOs, covering approximately 11.5% of Africa's protected areas. An analysis of these 40 CMPs shows that they help fund protected area management, enabling the delivery of positive conservation, social, and economic outcomes. Even during the COVID-19 pandemic, the CMPs documented successfully maintained operations, did not reduce staff or salaries, and in most cases, provided additional support to help communities withstand the impact of the pandemic. For CMPs to succeed, they require sustained political commitment, long-term financial resources, effective local engagement, and an enabling environment that supports a transparent and clear process for establishing the partnerships.

Source: World Bank Group (2021[22]), *Collaborative Management Partnership Toolkit. A resource guide to support partnerships that conserve protected areas and promote sustainable and inclusive development*, https://thedocs.worldbank.org/en/doc/a1cd419e5367b17b8598269b796a585d-0320052021/original/GWP-Collaborative-Management-Partnerships-Toolkit-low-res.pdf.

However, significant challenges to scaling up private finance remain. Attracting private capital into biodiversity requires breaking down investment barriers and originating bankable projects that create sustainable and inclusive opportunities for investors, both private and public (World Bank Group, 2020[115]; Rode et al., 2019[112]). These challenges have to do with the lack of understanding of the value of biodiversity (which leads to it being under priced) and the basic public good nature of biodiversity; in addition, they relate to the small scale and localised nature of biodiversity-related projects; lack of data, measurement, and reporting standards; the fact that these projects often involve no, or limited, cashflow; financial returns that tend to be below market terms (which means that pipelines of investment-grade projects and programmes are limited); as well as the lack of enforceable collateral in conservation projects (Rode et al., 2019[112]; Finance Watch, 2019[113]; FAO, 2022[120]). Not surprisingly, private capital has invested the least in SDGs 14 and 15 (Finance Watch, 2019[113]). A better understanding of the role of the private sector is needed so that it can contribute at scale, building on progress observed in other areas, such as climate change (Berghöfer et al., 2017[35]).

How do we know if biodiversity-related development finance is effective?

The focus on resource mobilisation for biodiversity, including from ODF, is occurring against a backdrop of rapid loss of biodiversity. Consequently, the pressure on biodiversity may also put pressure on ODF budgets, as a constant and growing flow of spending is needed to counterbalance biodiversity loss or to finance REDD+ schemes (Carrilho et al., 2022[121]; Parrotta et al., 2022[91]). This begs the question of whether and how to ensure that existing policy interventions, including those supported by ODF, are effective at ensuring the necessary protection of biodiversity, so that future ODF can help alleviate the pressure placed on biodiversity elsewhere. Yet, there is a lack of shared learning on the effectiveness of biodiversity approaches that also limits the sustainability of efforts (Santy et al., 2022[122]).

Effectiveness assessments measure the extent to which a development co-operation activity achieves (or is likely to achieve) its objectives. As in other areas of development co-operation, assessing the effectiveness of biodiversity ODF is faced with several methodological and practical challenges (Drutschinin et al., 2015[123]). Currently, as with most interventions targeting environmental change, the link

between ODF and changes in the status of biodiversity are difficult to establish, mainly given by the complex functioning of ecosystems, the many factors influencing its status, the time lag before changes in biodiversity are observed and measurable, the small proportion of ODF relative to other financial flows that impact upon biodiversity (Richerzhagen, Rodríguez and Stepping, 2016[124]), as well as effectiveness being measured at broader levels of ODA committed (e.g. effect measured at project/programme level instead of by objective). In addition, ODF financial inputs would need to be related to indicators that measure biodiversity aspects at a country level in a consistent and comparative way – yet these are difficult to obtain or, at best, partial (Richerzhagen, Rodríguez and Stepping, 2016[124]).

As a result, the literature has not yet reached conclusions on what constitutes effective development co-operation in biodiversity (Law, 2016[125]; Stepping and Meijer, 2018[126]). While (Bare, Kauffman and Miller, 2015[127]) find higher rates of forest loss correlated with aid, others such as (Waldron et al., 2017[128]) find that biodiversity-related funding ODA reduces biodiversity loss by 29% on average. Other studies also find positive outcomes linked to biodiversity-related ODF (Lee et al., 2022[129]; IFAD, 2021[107]), although the long-term impact of ODF on conservation, as well as the socio-economic impacts of this financing, is not well understood (Drutschinin and Ockenden, 2015[130]; Drutschinin et al., 2015[123]; Dufief et al., 2022[6]; OECD, 2019[131]; Erbaugh, 2022[132]). Biodiversity-related ODF may have positive impacts at a project level (Dublin, Volonte and Brann, 2004[133]), but this impact may get lost when one measures overall country-level biodiversity trends (Morrison-Métois and Lundgren, 2016[134]), especially when mediating factors, such as governance and institutional capacity, are deficient or missing (Bare, Kauffman and Miller, 2015[135]; Moreira-Dantas and Söder, 2022[136]). In addition, many activities are not designed with sufficient time scales to have an impact: some suggest that 5 to 20 years are needed for finance to have an impact (Richerzhagen, Rodríguez and Stepping, 2016[124]). Austria's engagement in Moldova is a good example of effective long-term donor engagement for biodiversity (Box 4.5), as well as Norway's EAF-Nansen programme supporting the application of ecosystem approaches to fisheries management while considering climate change and environmental pollution (FAO, 2018[137]) and Norway's ongoing REDD+ programme to strengthen global forest governance while reduce illegality in the forest sector (Norad, n.d.[138]).

Box 4.5. Austria's long-term engagement in Moldova has been beneficial for biodiversity conservation

Austria's Development Agency has been supporting the establishment of a protected area in the Lower Dniester Ramsar Site in Moldova for over a decade. The agency worked with two local NGOs and with local authorities to develop the legislative package to set up this protected area (Ministerul Mediului Al Republicii Moldova, 2022[139]), which was approved after 20 years of political and administrative stalemate. The fact that the legislation did not slide off the agenda over this period displayed Moldova's ownership of the issue (Biotica Ecological Society, n.d.[140]). This outcome was helped by Austria's long-term commitment, its focus on working through local partners (which helped with awareness raising on the importance of healthy ecosystems and their services, institutional capacity development, or to mobilise local partners and decision-makers), and its delivery of several consecutive projects aiming at sustainable water management, biodiversity conservation and climate change adaptation in the region.

Above these biodiversity-specific factors, the principles of effective development co-operation are also relevant to the biodiversity field and should guide DAC donors' development co-operation practice. These principles include country ownership, a focus on results, inclusive partnerships and transparency and mutual accountability (GPEDC, n.d.[141]). For example, donor contributions in a given partner country ought to be co-ordinated, in as far as possible, to ensure that international development finance intended for biodiversity is targeted strategically, seeking to achieve complementary synergies across donor contributions to achieve biodiversity-positive outcomes (CBD, 2020[50]). However, research shows that (as

in other areas of development co-operation) biodiversity-related action tends to be uncoordinated, or at best is country-specific or occurs through bilateral meetings among donors (Hoover El Rashidy, 2021[142]), which limits ownership and thus impacts on the success of these activities to address biodiversity loss (Berghöfer et al., 2017[35]; Milner-Gulland et al., 2021[4]). Research also shows that the engagement of indigenous peoples and local communities in biodiversity-related action also tends to be overlooked (Milner-Gulland et al., 2021[4]), again with impacts on the long-term effectiveness of biodiversity-related ODF.

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5 Conclusions and recommendations

This chapter provides some conclusions on the key challenges and opportunities related to biodiversity and development co-operation. These include increasing finance for biodiversity; using development finance more strategically, coherently and effectively; and, improving the quality and consistency of reporting on biodiversity-related development finance by all donors.

This report has used a novel and comprehensive methodology to identify biodiversity-related activities in the OECD DAC Creditor Reporting System (CRS) in order to estimate biodiversity-related development finance from bilateral DAC and non-DAC members, providers of South-South and triangular co-operation, multilateral development institutions, and private philanthropy, as well as flows mobilised from the private sector. Official development finance (ODF) flows for biodiversity-related objectives, which include both official development assistance and other official flows, almost doubled over 2011-20 – from USD 5.4 billion in 2011 to USD 10.4 billion in 2020 (based on the more conservative estimate using coefficients). This is an increase of 94% over the period, which is faster than the increase in ODF overall. This growth was primarily driven by bilateral DAC donors, which accounted for 73% of ODF flows, followed by multilateral donors (22%). Multilateral institutions also saw their role increase, providing USD 1.6 billion on average over 2011-20 in biodiversity-related development finance outflows. Non-DAC, South-South and triangular co-operation's biodiversity-related finance represented 0.1% of total development finance over 2011-20. Private finance mobilised by public ODF adds a relatively small contribution to biodiversity funding (USD 165 million in 2020), while private philanthropies provided an increasingly important contribution over 2017-20, reaching USD 686 million in 2020.

The analysis also finds that, collectively, DAC members that are Parties to the Convention on Biodiversity (CBD) have achieved Aichi Target 20 of doubling their total biodiversity-related international financial resource flows by 2015, from the baseline of their annual average funding over 2006-10, and at least maintaining that level until 2020. This holds true under several scenarios (e.g. using full values or applying a coefficient to a portion of the flows).

Key challenges

Despite this progress, the overall biodiversity financing gap, estimated at USD 700 billion in the Kunming-Montreal Global Biodiversity Framework, will not be met by ODF, even if ODF were to increase substantially. Further, there are multiple sources of finance that are likely to be increasingly significant, including in the area of biodiversity, as countries climb up the income ladder. The amounts of private sector finance leveraged/mobilised by ODF remain low, calling for an urgent assessment of the situation, as well as for an exchange among DAC members on lessons learnt, challenges and good practices. It will also be important to evaluate how ODF can better support the transformational changes necessary to transition to more sustainable pathways (OECD, 2021[1]). As a scarce resource, ODF will need to be strategic and targeted to leverage other sources of finance.

Moreover, the analysis shows that, overall, most ODF is unrelated to biodiversity, including in nature-dependent sectors (with the exception of the general environmental protection and forestry sectors). This trend is observable for both bilateral and multilateral donors and does not match recent commitments, such as those by the G7, multilateral development banks and the OECD (G7, 2022[2]; Multilateral Development Banks, 2021[3]; OECD, 2021[4]). This places donors in a situation in which they can endanger nature (with consequent risks of litigation, reputational damage and changing governance/legal frameworks) and/or be themselves vulnerable to the risks of collapsing biodiversity. Such nature-related risks are already visible in the form of water shortages and droughts, dead zones for fishing, pandemics, and forest fires – all with great pressures to ODF budgets.

Looking beyond development co-operation, the mismatch between actions to conserve and sustainably use biodiversity and the actions leading to loss of biodiversity needs to be addressed (OECD, 2020[5]; OECD, 2021[1]). Globally, a central priority will be for governments to stop incentivising the degradation of biodiversity through environmentally harmful support (by at least USD 500 billion annually by 2030 according to the GBF target 18) (CBD, 2022[6]) and unsustainable production and management of natural resources. Even well-intentioned investments in climate change mitigation and adaptation could be detrimental when biodiversity is not accounted for.

Recommendations

Building upon these findings, the report makes several recommendations for moving forward.

Increase development finance for biodiversity

- **DAC members,** as well as other providers, including South-South and triangular providers, would need to increase their ODF for biodiversity-related activities in line with the recent resource mobilisation strategy of the Global Biodiversity Framework. DAC members should also grow ODF for biodiversity as a core or principal objective and ensure that flows balance marine and terrestrial biodiversity hotspots, balance finance to middle-income countries, on the one hand, with finance for least-developed, small island developing states and fragile contexts, where nature underpins sustainable development, on the other hand.
- **Multilateral institutions** can also increase their biodiversity activities, also in line with recent requirements put forward by the Global Biodiversity Framework, and mainstream biodiversity more actively into their policies and operations, in line with the *MDB Joint Statement on Nature, People and Planet* and the Global Biodiversity Framework.
- **Public interventions (bilateral and multilateral) will need to work harder to mobilise more private finance, which will be key for filling the funding gap.** This can be achieved by leveraging existing and developing new financing tools, resources and partnerships.
- **Private philanthropic actors** could increase their role further by joining forces with public providers of development finance for biodiversity, thus enhancing their impact and learning.
- **More finance can be mobilised from the private sector**. This can be achieved by building upon and leveraging existing financing tools and resources, and developing new partnerships.

Use development finance more strategically, coherently and effectively

- **Donors can do more to mainstream biodiversity across the full range of their activities.** In addition, donors could consider moving to longer-term, more flexible modalities of development co-operation, in line with the functioning and needs of natural ecosystems and biodiversity.
- **Donors need to find ways to assess the volume of ODF that is potentially harmful to biodiversity** and to evaluate how ODF can better support the transformation towards net zero, climate-resilient and nature-positive pathways.
- **Donors should minimise trade-offs and maximise synergies across biodiversity, climate and other environmental dimensions.** Failure to do so could lead to resource inefficiencies and impaired outcomes.
- **Governments worldwide will need to identify and reform potentially environmentally harmful support** across a range of sectors, including fossil fuels, agriculture and fisheries – and **all providers will need to help partner countries to do so through capacity development**.
- **Donors need to be more rigorous at monitoring development finance interventions to support biodiversity and their outcomes**. It is essential to understand when, where and why interventions have been successful in the past to pave the way to scaling them up.

Reinforce the quality and consistency of reporting on biodiversity-related ODF

- **Resolve inconsistencies in how the Rio Markers and the SDGs are applied and interpreted by countries**.

- **Address the transparency, data gaps and inconsistencies in the tracking and reporting of development finance for biodiversity beyond the DAC.** Many multilateral institutions still need to identify their biodiversity-related flows to the OECD and strengthen public reporting more widely. Non-DAC, South-South and triangular co-operation providers could also report to the OECD on biodiversity. While work is ongoing to enhance the quality and scope of data available on biodiversity, further guidance for bilateral donors may be necessary for them to track mobilised private finance and for multilateral donors aiming to target biodiversity-related activities.
- **Increase transparency and unify standards** across reporting obligations to the OECD and CBD; and provide more disaggregated information when reporting. This will improve data quality and comparability, simplifying data exchange and scrutiny, as well as communication.

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Annex A. Data coverage and sources

Official development assistance (ODA), Other official flows (OOF) and Official development finance (ODF)

The OECD DAC Secretariat collects individual aid activities on Official development assistance (ODA) and Other Official Flows (OOF) in the Creditor Reporting System (CRS). ODA is defined as flows to countries on the DAC List of ODA Recipients and core contributions to multilateral development institutions provided by official or executive agencies in the list of ODA-eligible international organisations (OECD, 2021[1]). ODA must have the economic development and welfare of developing countries as its main objective, and be concessional in character - either flowing as grants or concessional loans (i.e. softer than market terms). In turn, OOF comprises transactions from governments to developing countries that do not qualify as ODA, i.e. loans extended at market rates (OECD, 2021[1]). This definition of other official flows excludes official direct export credits. Together, the sum of bilateral ODA flows, bilateral OOF (except OOF grants and loans for commercial purposes), and all outflows (grants and loans) by multilateral development institutions, define official development finance (ODF). As such, ODF is a broader measure of developing countries' official receipts for development purposes (OECD, 2021[1]).

Countries and institutions reporting to the OECD on their ODF flows include biodiversity-related information through the biodiversity Rio Marker, as well as through two SDG tags (for marine and terrestrial biodiversity), and two biodiversity-related purpose codes (see below). In other cases, biodiversity-related information needs to be searched and verified manually in the CRS (e.g. through data mining).

Data sources: the biodiversity Rio Marker, SDGs 14 and 15, biodiversity purpose codes and keywords

The Rio Marker on biodiversity

To date, the Rio Markers represent the most comprehensive, publicly available activity-level data on biodiversity-related development finance from bilateral donors. Since 1998, the DAC monitors development finance targeting the objectives of the Rio Conventions, including the United Nations Convention on Biological Diversity (CBD), through four "Rio markers" [biodiversity, desertification, climate change mitigation and adaptation (the latter introduced in 2009); for more information on the Markers, see (OECD, 2016[2])]. The Rio Markers were designed to track the degree to which members integrate environmental considerations into their development co-operation activities, and to support members in preparing their National Reports to the Conventions. Reporting on the Rio Markers is mandatory for ODA from DAC members (but not for OOF or for non-DAC bilateral and multilateral providers reporting to the OECD). Coverage of OOF with the Rio Markers for bilateral providers is limited.

For DAC members and for countries and institutions voluntarily using the Rio Markers, biodiversity-related activities ought to be screened and marked as either (i) targeting the objectives of the CBD, with a 'principal objective' or a 'significant objective', or (ii) not targeting the objective (the activity has no relation with the Marker). Activities marked as "principal" would not have been funded but for that objective; activities

marked “significant” have other primary objectives, but have been formulated or adjusted to help meet biodiversity concerns.

The activities identified with the marker should promote at least one of the three objectives of the CBD, namely: the conservation of biodiversity, sustainable use of its components (ecosystems, species or genetic resources), or fair and equitable sharing of the benefits of the utilisation of genetic resources. The Rio Marker methodology includes biodiversity-related finance from all sectors, not just the environmental sector. As such, an activity can be marked with the biodiversity Marker if it contributes to:

a) protecting or enhancing ecosystems, species or genetic resources through in-situ or ex-situ conservation, or remedying existing environmental damage; or

b) integrating biodiversity and ecosystem services concerns within recipient countries’ development objectives and economic decision making, through institution building, capacity development, strengthening the regulatory and policy framework, or research; or

c) developing countries’ efforts to meet their obligations under the Convention (OECD, 2019[3]).

As mentioned above, an activity scores “principal” if it directly and explicitly aims to achieve one or more of the above three criteria. Alternatively, the Marker identifies projects that can have “significant” co-benefits for biodiversity but for which biodiversity is not the primary focus (e.g. a project focused on enhancing agricultural production, while training smallholder farmers to combine native vegetation with crops for higher outputs and biodiversity protection). For a project to be identified as “significant” it must also comply with the eligibility criteria for the biodiversity Marker, even if not being the project’s primary focus. It should be noted that much of the project-level ODF delivered with the biodiversity Marker can contribute to one or more of the other Rio-marker goals (e.g. aid to biodiversity often creates positive impacts for desertification and for climate change mitigation and adaptation) and/or other areas (e.g. governance, gender, disaster risk reduction). Thus, the presentation of more than one marker accounts for the possibility of overlaps across them.

The Rio Markers were designed to track the degree to which members are integrating and mainstreaming environmental considerations into their development co-operation activities, and thus apply to the entirety of an activity reported – not to the allocation of finance associated with the biodiversity-specific component of that activity. Alternatively, in reporting against quantified international finance goals (such as the CBD’s Aichi target 20 on development finance), many DAC members report only a proportion of their ODF targeting biodiversity as a “significant” objective, estimating this through applying coefficients to adjust the share of finance reported. A coefficient is applied because the Rio marker data applies to the entire activity reported by the provider, not the finance associated with the biodiversity-specific component of that activity. There is no agreed definition or common approach for this practice, but the most common coefficient applied is 40% to countries’ “significant” flows (OECD, 2020[4]), which will be used to present progress against the Aichi target 20 on development finance, along with the full account of “principal” flows.

Reporting on biodiversity-related SDGs

A specific field for reporting on the Sustainable Development Goals exists in the CRS [for more information see: (OECD, 2020[5])]. This includes data on Goal 14 “Life below water” and Goal 15 “Life on land”, including their targets. SDG 14 aims to “conserve and sustainably use the oceans, seas and marine resources” by, for example, reducing marine pollution, sustainably managing and protecting marine and coastal ecosystems, and ending overfishing. SDG 15 aims to “sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss” by, for example, reducing the degradation of natural habitats, preventing the loss of biodiversity, supporting efforts to combat poaching and trafficking of protected species, and scaling up financial resources to conserve and sustainably use biodiversity and ecosystems. Reporting on the SDG focus in the CRS is recent (introduced in 2018), experimental and voluntary (and can be done at the goal or target level) (OECD, 2021[1]), and the

heterogeneity in reporting quality of this field implies that data extracted from this field may be inconsistent across donors.

Moreover, reporting on SDG focus areas often includes SDGs 14 and 15 along many other SDGs, thus limiting the precision of estimates derived from this field. Notwithstanding this, they still help fill missing data gaps and provide additional information (e.g. to identify non-biodiversity-marked projects and for countries and institutions that do not use the Marker). For multilateral institutions, activities that were identified with SDGs 14 and/or 15 only, were retained as 'principal-like', while those with more than one or both of these SDGs, were retained as 'significant-like' (and a coefficient was applied when counting these numbers). For the analysis on climate change, moreover, information reported on the SDG 13 was also included in this analysis; as were SDG 5 used for the analysis on gender equality. For the analysis on desertification, only SDG 15.13 was used.

To ensure the data added is robust, a manual revision of the data reported against the SDGs ensured consistency with reported elements and the Rio Marker on biodiversity definition (i.e. the objective or description of the activity relates to the objectives of the CBD) and following the guidance described in the Indicative table for the Rio Marker for Biodiversity (OECD, 2019[6]). Following this logic, estimates only considered allocable flows (mainly those targeting the ODA eligible co-operation modalities i.e. 'A02', 'B01', 'B03', 'B04', 'C01', 'D01', 'D02', 'E01'). For the multilateral institutions, the analysis excluded data reported against several purpose codes: 130 (population policies/programmes and reproductive health), 210 (transport and storage), 510 (general budget support-related aid), 530 (other commodity assistance), 600 (debt relief), 910 (administrative costs), 930 (refugees in donor countries), and 998 (unallocated).

Biodiversity-related purpose codes

The CRS has a taxonomy of purpose codes, which identifies the sector that the activity intends to support (OECD, n.d.[7]). In the case of biodiversity, the CRS has two purpose codes that target biodiversity under 410 (general environmental protection), namely 41020 (biosphere protection, which includes air pollution control, ozone layer preservation, marine pollution control); and 41030 (biodiversity, includes natural reserves and actions in the surrounding areas, other measures to protect endangered or protected species and their habitats, e.g. wetland preservation). For multilateral institutions, flows available under the biodiversity purpose codes, were assimilated to 'principal-like' activities (and flows were accounted in their entirety), while for the biosphere purpose code, flows were assimilated to 'significant-like' flows (and a coefficient was applied when counting these numbers).

Keyword searches

Beyond the use of the biodiversity Rio Marker, purpose codes and SDGs, biodiversity-related information was also searched manually in the CRS by applying a keyword search on merged descriptive data fields, such as project titles and descriptions (in English, Spanish and French, as well as German and Portuguese for bilateral providers). This was primarily used for multilateral institutions, which helps make use of the full informative content in the database and increase the likelihood that all projects relevant for biodiversity are captured, while maintaining the integrity of the CRS database and information contained therein (see Table A.1). For DAC members, this approach was used to understand additional dimensions not readily identifiable in the CRS (e.g. marine and terrestrial biodiversity, illegal wildlife trade, see next sub-sections).

There are inherent limitations when using keyword searches on text descriptions of the CRS. Due to missing words, incomplete or erroneous reporting, and lack of consistency in the project description, the procedure cannot guarantee that all biodiversity-related projects are detected. The selection of keywords aims at accuracy, as well as granularity. In the case of multilateral institutions, keywords were separated into two categories: a first category of keywords related closely with 'principal-like' biodiversity-related activities (e.g. activities related to conservation, protection and restoration of biodiversity, or illegal wildlife

trade). A second category of keywords aimed at capturing 'significant-like' biodiversity-related activities, that is, activities where biodiversity aspects are mainstreamed into other sectors (and a coefficient was applied when counting these numbers). By applying this two-category keyword approach, the aim was to maximise data disaggregation while balancing the risk of capturing projects that are not beneficial or related to biodiversity, with the risk of discarding actual biodiversity-related projects. To ensure the robustness of this methodology, moreover, activities identified through the keyword search were individually assessed to verify their fit with the definition of the Rio Marker on biodiversity and also referred to the Marker indicative tables. When an activity was not fitting with this definition, or when information was missing or partial, it was excluded from the analysis.

Table A.1. Biodiversity-related keywords applied to identify multilateral biodiversity-related activities

English 'Principal-like'	biodiversity, bio-diversity, bioeconomy, biosphere, Cartagena protocol, CBD, CITES, coastal protected areas, coastal protection, coastal wetlands protection, combat IUU, combating fish crimes, combating wildlife, combatting IUU, combatting wildlife, conservation and Sustainable Use of the Threatened Savanna Woodland, conservation area, conservation forests, conservation landscape, conservation of animal genetic resources, conservation of aquatic ecosystems, conservation of habitats and species, conservation of mangroves, conservation of the Asiatic Cheetah, conservation of wildcats, conservation project, Convention on Biological Diversity, coral bleaching, coral reef protection, coral reef rehabilitation, coral reef rescue, ecological connectivity, ecological conservation, ecological protection, ecological restoration, ecosystem conservation, ecosystem rehabilitation, ecosystems protection, elimination of mercury, fauna corridor, forest and landscape restoration, forest conservation, forest ecosystem, forest landscape restoration, forest restoration, genetic resources strengthening, goal 14, goal 15, human wildlife, human-animal, human-wildlife, illegal fish, illegal fishing, illegal trafficking of wildlife, illegal wildlife, IUCN, IUU fishing, IWT, jaguar, lake conservation, landscape conservation, landscape restoration, leopard, mangrove , Minamata Convention, MPA , Nagoya Protocol, national park, native forest, natural forest, natural habitat, natural heritage, natural resource conservation, nature conservation, nature protection, nature reserve, NBSAPs, payment for environmental services, payments for ecosystem services, peatland restoration, poaching, pollinator, preservation of the environment, preventing forest loss, protected area, protection of its natural resources, Ramsar, recovery of natural capital, reef restoration, resource conservation, restoration of coral, restoring forest, rhino, sdg 14, sdg 15, sdg14, sdg15, sea turtle, soil conservation, tiger, trafficking of wildlife, unreported and unregulated fishing, watershed rehabilitation, wetland protected, wetland protection, wildlife, WWF
English 'Significant-like'	adequate management of irrigation water, agri-environmental, agrobiology, agroecology, anti-poaching, biology, blue action fund, blue spaces, bushmeat, Caribbean Biodiversity Fund, conservation agriculture, conservation and use of plant, CZM, decreasing erosion, deforestation, degradation of forests, degraded ecosystems, degraded forest, degraded landscape, dryland sustainable, Earth Observation, EbA, ecological footprint, ecological integrity, ecology, ecosystem approach, ecosystem functions and services, ecosystem services, ecosystem values, ecosystem-based, ecotourism, EMEC, enhancement of natural, environment improvement, environment protection, environment rehabilitation, environmental conservation, environmental crime, environmental degradation, environmental health, environmental impact assessments, environmental improvement, environmental management, environmental pollution, environmental protection, environmentally sensitive areas, environmentally sustainable, farmland sustainable utilisation, fisheries intelligence, forest fragmentation, forest resource development, fragile lands, freshwater ecosystems, GEF, global biodiversity framework, Global Environment Facility, green space, green wall, healthy forest, hunting practices, hunting the hunters, illegal charcoal, illegal crop, integrated coastal management, integrated coastal zone management, integrated ecosystem, integrated forest, integrated land water, integrated river basin management, land and ecosystem management, land degradation, land protect, land restoration, land use and restoration, management of forests, management of landscapes, management of peat-swamp, marine ecosystem, marine environment, mercury, natural resource management, nature based tourism, nature-based solutions, nature-based tourism, organic agriculture, organic cereal, organic certification, organic coffee, organic farm, organic farming, ozone depletion, REDD, reducing vulnerability of natural resource, reduction of soil erosion, reforestation, resilience of fisheries, resilience of wetlands, resilient agroforestry, resilient fisheries, resilient landscape, responsible fishing, seas sustainable management, SLM, smart agriculture, sustainability of mangrove, sustainable agriculture, sustainable and socially acceptable fish, sustainable aqua, sustainable bio-energy, sustainable biomass, sustainable coastal, sustainable cropland, sustainable development of natural resources, sustainable dryland, sustainable environment, sustainable fish, sustainable forest, sustainable fuelwood management, sustainable game management, sustainable harvest, sustainable land, sustainable landscape, sustainable livestock, sustainable management of bycatch, sustainable management of fisheries, sustainable management of lakes, sustainable management of natural resources, sustainable management of peatland, sustainable management of tuna, sustainable management of wildlife, sustainable mangrove management, sustainable marine, sustainable natural, sustainable supply chains for marine commodities, sustainable timber, sustainable use of medicinal

	plants, sustainable use of natural resource, sustainable use of peatland, sustainable use of PGRFA, sustainable utilisation of plant genetic resources, sustainable watershed, sustainable wildlife management, sustainably managing the natural, United Nations Development Programme's Biodiversity Finance, vulnerable ecosystems, water conservation, water resources conservation, watershed conservation, watershed management, wetland ecosystem, wildfire management
Spanish 'Principal-like'	área protegida, biodiversidad, bioeconomía, conectividad ecológica,conservación de anfibios, conservación de la biodiversidad, conservación forestal, conservar la biodiversidad, Convenio sobre la Diversidad Biológica,ecoturismo, en peligro de extinción, humedales protegidos, murciélago, patrimonio natural, pesca ilegal, protección del medio ambiente, vida silvestre
Spanish 'Significant-like'	Agricultura de conservación, agricultura orgánica, agroambiental, agroecología, agrosilvicultura resiliente, animales confiscados, bioandes, biología, bosque degradado, bosque integrado, bosque saludable, bosque sostenible, café orgánico, capital natural, carbono azul, carne de animales silvestres, cereal orgánico, certificación orgánica, conservación de cuencas hidrográficas, conservación de recursos, conservación del agua, Convención de las Naciones Unidas para Combatir la Desertificación, cosecha sostenible, deforestación, degradación ambiental, degradación de la tierra, degradación de los bosques, delitos ambientales, desarrollo de ecosistemas integrados de montañas, diversidad biológica, diversidad genética, ecología, economía azul, ecosistema de humedales, ecosistema marino, ecosistemas de agua dulce, ecosistemas de bosques de montaña, ecosistemas degradados, ecosistemas vulnerables, enfoque basado en ecosistemas, enfoque ecosistémico, evaluaciones de impacto ambiental, fondo de acción azul, fondo de biodiversidad del caribe, Fondo para el Medio Ambiente Mundial, funciones y servicios ecosistémicos, gestión ambiental sostenible, gestión integral de tierras, gestión sostenible de la tierra, gestión sostenible de la vida silvestre, gestión sostenible de las turberas, horticultura sostenible, huella ecológica, intercambio de información y datos oceanográficos, inundaciones costeras, madera sostenible, manejo costero integrado, manejo de incendios forestales, medio ambiente sostenible, mejorar la tierra, natural sostenible, no maderable, pago por servicios de cuencas, paisaje sostenible, pérdida de biodiversidad, pérdida de hábitat, plantas medicinales, prácticas de gestión de recursos naturales, reducción del riesgo de desastres, restauración de hábitat, servicios ecosistémicos, silvicultura sostenible, silvicultura y conservación, tierra sostenible, tierra y conservación del agua, tierras frágiles, tigre, uso y restauración de la tierra
French 'Principal-like'	Aires protégées, conservation des écosystèmes, conservation des éléphants, conservation des terres, conservation du paysage, contre le braconnage, préservation forêt, protection de l'environnement, réhabilitation du parc national, réhabilitation parc, utilisation durable du parc national, zones protégées
French 'Significant-like'	Adaptation basée sur les écosystèmes (AbE), agriculture durable, agroécologiques, aménagement durable du territoire, crédit de nature, crédit environnement, crédit verte, gestion durable des terres, gestion intégrée des forêts, muraille verte, pastorales durables, performance environnementale, ressources naturelles, restauration écologique, secteur de l'environnement, sols dégradés, utilisation durable des forêts

Note: The keywords enumerated were ran within strings of a same formula. As such, some key words within the list might not have captured activities. Most multilateral institutions report to the OECD CRS dataset in English or Spanish. This analysis found some relevant activities reported in French, and thus included French key words when potentially suitable.
Source: The list of keywords was derived from a literature review and through the review of common words used in the CRS database of biodiversity-marked projects.

Other remarks on the data sources used

Reporting on the biodiversity Rio Marker is mandatory for DAC members, further agreeing that any activity reported with the biodiversity purpose code (41030) must also be reported with the biodiversity Rio Marker for coherence. The data from 2011-2020 reflects an accurate use of both markers, with less than 1% inconsistency starting from 2020 – although further efforts are needed to address inconsistencies in how the Rio Markers and the SDGs are applied and interpreted by countries. Indeed, it is important to note that these estimates only provide an approximation of total 'principal' and 'significant' objective shares – as a portion of biodiversity-related ODA is reported against the SDGs and not the Rio Markers over 2018-20. This in turn means that DAC members reporting on the SDGs could explore whether projects targeting SDGs 14 and 15 could also be reported against the biodiversity Rio Marker, and then assigned a 'principal' or 'significant' score.

However, this is not the case for multilateral institutions. For the latter, the use of the biodiversity Rio Marker is voluntary, resulting in inconsistent and not comparable reporting. As such, activities marked with the biodiversity purpose code are not necessarily marked with the biodiversity Rio Marker, resulting in 14% to 90% (in 2011 and 2020, respectively) of activities marked with the biodiversity purpose code not being marked with the Biodiversity Rio Marker, an annual average of 18% during 2011-20. Moreover, of the total multilateral development flows relevant to the indicative biodiversity Rio Marker table, only 2% were screened against the biodiversity Rio Marker, with the remaining 98% being unspecified or unassessed. From the screened flows, this analysis captured the total amount (USD 970 million) of the flows marked

with the Rio Marker (principal and significant), 7% (USD 6 million) of the flows marked as not targeting the Marker, and only 2% (USD 2 million) of unspecified allocations. These remarks highlight the importance of both increasing the number of institutions that report against the Rio Markers, while ensuring that those that already do so, improve their reporting.

Finally, some of these data sources are insufficient to track elements of relevance for biodiversity (e.g. marine and terrestrial biodiversity) or promote further disaggregation (e.g. exploring whether certain sector codes, such as forestry or general environmental protection, could be revised to improve granularity).

Time range of analysis

This report provides a quantitative analysis of recent trends of biodiversity-related development finance (2011-20). The analysis could be provided on a disbursement or commitment basis. A commitment is a firm written obligation by a government or official agency, backed by the appropriation or availability of the necessary funds, to provide resources of a specified amount under specified financial terms and conditions, and for specified purposes for the benefit of a recipient country or multilateral agency. The estimates presented in this report are based on a commitment basis and over 2011-20.

The analysis will use the 2006-10 period as baseline to understand the overall evolution of biodiversity-related development finance trends against the 2011-20 Aichi targets. It is important to note that data for the years 1998-06 on biodiversity were obtained on a trial basis; and reporting on the Rio Marker became mandatory starting with 2006 flows (Drutschinin and Ockenden, 2015[8]). For example, the number of ODA increased by 45% over 2006-10. These increases typically reflect the usual trajectory of new markers: it may take a few reporting cycles for a marker to reflect the policy focus of donors.

There are additional caveats regarding the time range applied in this analysis:

- OOF data reported to the CRS is limited, still.
- CRS data for SDGs 14 and 15 were only introduced in 2019 for 2018 activities (OECD, 2018[9]), hence data will only be available for the 2018-20 period.
- On the mobilisation of private finance by ODF, data is available from 2012, although quality and coverage improved significantly after 2017 (e.g. sector, marker and other descriptive fields) when related data collections were integrated in regular CRS reporting.
- For philanthropic foundations, data is collected and published at the level of individual grants and investments, and - for most private providers - screened annually by the OECD Secretariat using the Rio Marker methodology. Data covers the period 2015-20, yet the coverage for the period 2015-16 is limited compared to 2017-20. In fact, prior to 2015, the Bill and Melinda Gates Foundation was the only foundation reporting some biodiversity-related financial flows to the CRS.

Countries and institutions reporting to the OECD on biodiversity

The analysis looks at DAC members but examines available data on multilateral providers, non-DAC donors, mobilisation data and private philanthropies that report to the OECD:

- The CRS includes data on the 30 DAC members (OECD, n.d.[10]) that are mandated to use the Biodiversity Marker: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, European Union institutions, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the United States. In addition, 25 countries and territories also report to the OECD using the CRS, of which only 7 have used the Biodiversity Marker to date, namely: Azerbaijan, Cyprus,[1] Estonia, Latvia, Lithuania, Romania, and the United Arab Emirates. For OOF, to date, Austria, Canada, Finland, France, Norway,

Switzerland and the United States have reported biodiversity-related activities. In addition, 23 countries have used the SDGs 14 and 15 labels to date.

  - No data for the years 2006–2010 was available for countries that became DAC members in 2013 (the Czech Republic, Iceland, Poland, the Slovak Republic, and Slovenia) and 2016 (Hungary).

- There are 65 multilateral institutions that have been reporting to the OECD, of which 11 have used the Biodiversity Marker, namely, Arab Fund for Economic and Social Development (AFESD), Development Bank of Latin America (CAF), Global Environment Facility (GEF), Green Climate Fund (GCF), IDB Invest, Inter-American Development Bank (IDB), International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), Nordic Development Fund (NDF), UNDP, and World Tourism Organisation. However, only three of these reported every year on biodiversity (GEF and IDA) since 2011 and IBRD since 2013. For non-concessional multilateral outflows, to date, the CAF, GCF, IDB Invest, IADB, and IBRD reported biodiversity-related activities. Another 3 institutions have provided data on the SDGs 14 and 15 labels (AFESD, GEF and GCF) to date. An additional 8 institutions used the biodiversity-related purpose codes (AFESD, GEF, GCF, IADB, IBRD, IDA, NDF and UNDP).
- The CRS includes data on finance flows reported by 45 philanthropic foundations, of which 36 provided data on biodiversity-related flows (biodiversity purpose codes or Biodiversity Marker or SDG 14 or 15), namely: Arcadia Fund, Arcus Foundation, BBVA Microfinance Foundation, Bezos Earth Foundation, Bill and Melinda Gates Foundation, Bloomberg Family Foundation, Carnegie Corporation of New York, Charity Projects Ltd (Comic Relief), Children's Investment Fund Foundation, Citi Foundation, David and Lucile Packard Foundation, Dutch Postcode Lottery, Ford Foundation, Gatsby Charitable Foundation, Gordon and Betty Moore Foundation, Grameen Crédit Agricole Foundation, H&M Foundation, Howard G. Buffett Foundation, IKEA Foundation, John D. and Catherine T. MacArthur Foundation, Laudes Foundation, Margaret A. Cargill Foundation, Mastercard Foundation, MAVA Foundation, McKnight Foundation, Michael and Susan Dell Foundation, Norwegian Postcode Lottery, Oak Foundation, Omidyar Network Fund, Inc., Open Society Foundations, People's Postcode Lottery, Rockefeller Foundation, Swedish Postcode Lottery, UBS Optimus Foundation, Wellcome Trust, William and Flora Hewlett Foundation.

Total Official Support for Sustainable Development (TOSSD) data

The Total Official Support for Sustainable Development (TOSSD) [2] was adopted in March 2022 as a data source for the SDG global indicator framework (i.e. SDG indicator 17.3.1)[3] to measure sustainable development support for “Additional financial resources mobilized for developing countries from multiple sources”, increasing the visibility and transparency of official resources and private finance mobilised by official interventions. In this regard, the OECD serves as the Secretariat to the International TOSSD Task Force, a group of experts from provider countries, recipient countries and multilateral organisations, created to develop and improve the TOSSD methodology.

TOSSD is designed to monitor both cross-border resources (Pillar I) and regional and global expenditures in support of sustainable development (Pillar II). TOSSD includes both concessional and non-concessional support, from multilateral and bilateral providers, including some DAC members, South-South and triangular co-operation providers (TOSSD, n.d.[11]). The first comprehensive set of TOSSD data, for 2019, was published in 2021 and the latest 2020 data as released in April 2022.[4] As TOSSD consists exclusively of development finance that contributes to enhancing sustainability defined as contributing to one or more SDGs, the reporting standard includes mandatory reporting on areas of SDG focus for reported projects. This requirement implies that TOSSD data is useful in evaluating contributions towards SDGs 14 and 15. However, data remains available only for the most recent years of analysis. Furthermore, the practice of reporting on SDG focus areas also leads to large projects being reported to be relevant for SDG 14 along

other SDGs. TOSSD data is therefore not equivalent in scope and applicability to the methodology presented earlier, but can provide complementary information. This report provides data on Pillar I from providers beyond the DAC (e.g. South-South Co-operation).

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TOSSD (n.d.), *Total Official Support for Sustainable Development*, https://www.tossd.org/. [11]

Notes

[1] Note by Türkiye: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union:
The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

[2] For more information on TOSSD, see: www.tossd.org.

[3] See the relevant information on the UN Statistics division website dedicated to the framework at https://unstats.un.org/sdgs/metadata/?Text=&Goal=&Target=17.3 and the file quoting TOSSD as a data source at https://unstats.un.org/sdgs/metadata/files/Metadata-17-03-01.pdf

[4] See the TOSSD data and visualisation tools at: https://tossd.online.

Annex B. Dimensions of the analysis

Constant currency

Constant prices provide a truer idea of the volume of flows over time and are therefore used in this report. An adjustment has been made to cover both inflation in the donor's currency between the year in question and the reference year, and (where applicable) changes in the exchange rate between that currency and the United States dollar over the same period.

Modalities covered

The Rio Markers should be used only for allocable flows, which are defined through a set of development co-operation modalities: sector budget support; core support to NGOs; support to specific funds managed by international organisations; pooled funding; projects; donor country personnel and other technical assistance; and scholarships in the donor country. The analysis therefore excludes flows under general budget support, core contributions to multilateral organisations, imputed student costs, debt relief operations, and in-donor administrative costs, development awareness activities and refugee costs.

Channel of delivery

The channel of delivery is the first implementing partner, typically public sector institutions (e.g. central government, local administration and public corporations in donor or recipient countries), NGOs and civil society (e.g. The Nature Conservancy), Public-Private Partnerships, or multilateral organisations. The CRS does not allow to track the use of these funds beyond this first implementing partner, which may be picked up by the project descriptions and titles.

Private finance mobilised by DAC countries' ODF interventions

In the OECD DAC statistics, mobilisation is the stimulation by specific financial mechanisms and interventions of additional resource flows for development (OECD, 2021[1]). Data on the amounts of finance mobilised by DAC countries' ODF interventions are collected through regular CRS data collection for syndicated loans, guarantees, shares in collective investment vehicles, direct investment in companies, credit lines, project finance and simple co-financing arrangements. The methodologies for reporting on amounts mobilised are defined instrument by instrument (OECD, 2018[2]), but overall reflect the principles of causality between private finance made available for a specific project and an official intervention, as well as pro-rated attribution as to avoid double counting in cases where more than one official provider is involved in a project mobilising private finance. The amounts mobilised from the private sector cover all private finance mobilised by ODF interventions, regardless of the origin of the private funds (provider country, recipient country, third country). Private finance mobilised for biodiversity is identified when the DAC member reporting used the Biodiversity Marker.

Recipient country analyses

The DAC list of ODA recipients for 2011-20 can be found in (OECD, n.d.[3]). The report looks at additional categories to the ones included in the CRS, namely:

- Small Island Developing States (SIDS): over the period of analysis, there are 33 ODA-eligible SIDS (OECD, 2020[4]).
- Biodiversity hotspots: there are 36 areas that qualify as biodiversity hotspots (Conservation International, n.d.[5]; CEPF, n.d.[6]), of which 31 concern ODA-eligible countries.
- Megadiverse countries: there are 17 megadiverse countries, according to (UNEP-WCMC, 2020[7]), of which 15 are ODA-eligible.
- Environmental fragility: using the OECD's multidimensional fragility framework (OECD, 2020[8]), the degree of environmental fragility (minor, low, moderate, high and severe) measures vulnerability to climatic and health risks that affect livelihoods, as well as legal and social institutions to counterbalance such risks. As of 2020, it takes into account disaster risk, environmental performance (which includes biodiversity issues), food insecurity, government effectiveness, prevalence of infectious disease, rule of law, socio-economic vulnerability, strength of civil society and urbanisation. There are 21 ODA-eligible countries with low, 42 with moderate, 20 with high and 40 with severe environmental fragility.

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Annex C. Sector classifications

Purpose codes

In the CRS, data on the sector of outflows' destination are recorded using purpose codes (OECD, n.d.[1]), reflecting the specific area of the recipient's economic or social structure that the transfer is intended to foster. Some contributions are not susceptible to allocation by sector and are reported as non-sector allocable aid. For this analysis, as seen in Table C.1, some purpose codes were reclassified into sector areas, seeking to depict activities captured through purpose codes within sector areas that are related by descriptions or functions.

Table C.1. Purpose codes classified by sector areas

Sector areas	Purpose codes descriptions
General environment protection	Environmental policy and administrative management, Biosphere protection, Biodiversity, Site preservation, Environmental education/training, Environmental research
Energy	Energy policy and administrative management, Energy education/training, Energy research, Energy conservation and demand-side efficiency, Energy generation, renewable sources - multiple technologies, Hydro-electric power plants, Solar energy for centralised grids, Solar energy for isolated grids and standalone systems, Solar energy - thermal applications, Wind energy, Marine energy, Geothermal energy, Biofuel-fired power plants, Energy generation, non-renewable sources, unspecified, Coal-fired electric power plants, Oil-fired electric power plants, Natural gas-fired electric power plants, Non-renewable waste-fired electric power plants, Hybrid energy electric power plants, Nuclear energy electric power plants and nuclear safety, Heat plants, District heating and cooling, Electric power transmission and distribution (centralised grids), Electric power transmission and distribution (isolated mini-grids), Retail gas distribution
Other multisector	Multisector aid, Urban development and management, Rural development, Non-agricultural alternative development, Food security policy and administrative management, Household food security programmes, Food safety and quality, Multisector education/training, Research/scientific institutions
Agriculture	Agricultural policy and administrative management, Agricultural development, Agricultural land resources, Agricultural water resources, Agricultural inputs, Food crop production, Industrial crops/export crops, Livestock, Agrarian reform, Agricultural alternative development, Agricultural extension, Agricultural education/training, Agricultural research, Agricultural services, Plant and post-harvest protection and pest control, Agricultural financial services, Agricultural co-operatives, Livestock/veterinary services
Water supply and sanitation	Water sector policy and administrative management, Water resources conservation (including data collection), Water supply and sanitation - large systems, Water supply - large systems, Sanitation - large systems, Basic drinking water supply and basic sanitation, Basic drinking water supply, Basic sanitation, River basins development, Waste management/disposal, Education and training in water supply and sanitation
Forestry	Forestry policy and administrative management, Forestry development, Fuelwood/charcoal, Forestry education/training, Forestry research, Forestry services
Other economic infrastructure	Transport policy and administrative management, Road transport, Rail transport, Water transport, Air transport, Education and training in transport and storage, Communications policy and administrative management, Telecommunications, Radio/television/print media, Information and communication technology (ICT), Construction policy and administrative management
Government, policies and regulations	Public sector policy and administrative management, Public finance management (PFM), Decentralisation and support to subnational government, Anti-corruption organisations and institutions, Domestic revenue mobilisation, Public Procurement, Legal and judicial development, Macroeconomic policy, Democratic participation and civil society, Elections, Legislatures and political parties, Media and free flow of information, Human rights, Women's rights organisations and movements, and government institutions, Ending violence against women and girls, Facilitation of orderly, safe, regular and responsible migration and mobility, Security system management and reform, Civilian peace-building, conflict prevention and resolution, Participation in international peacekeeping operations, Reintegration and SALW control, Removal of land mines and explosive remnants of war, Child soldiers (prevention and demobilisation), Business policy and administration, Privatisation, Business development

Sector areas	Purpose codes descriptions
	services, Responsible business conduct, Trade policy and administrative management, Trade facilitation, Regional trade agreements (RTAs), Multilateral trade negotiations, Trade-related adjustment, Trade education/training
Disaster risk reduction	Disaster Risk Reduction, Food assistance, Material relief assistance and services, Emergency food assistance, Relief co-ordination and support services, Immediate post-emergency reconstruction and rehabilitation, Multi-hazard response preparedness, Import support (capital goods), Import support (commodities), Debt for development swap
Fishing	Fishing policy and administrative management, Fishery development, Fishery education/training, Fishery research, Fishery services
Education	Education policy and administrative management, Education facilities and training, Teacher training, Educational research, Primary education, Basic life skills for adults, Basic life skills for youth, Primary education equivalent for adults, Early childhood education, School feeding, Upper Secondary Education (modified and includes data from 11322), Vocational training, Higher education
Industry	Industrial policy and administrative management, Industrial development, Small and medium-sized enterprises (SME) development, Cottage industries and handicraft, Agro-industries, Forest industries, Textiles, leather and substitutes, Chemicals, Cement/lime/plaster, Energy manufacturing (fossil fuels), Pharmaceutical production, Engineering, Transport equipment industry, Clean cooking appliances manufacturing, Technological research and development
Unallocated / unspecified	Administrative costs (non-sector allocable), Sectors not specified, Promotion of development awareness (non-sector allocable)
Financial systems	Financial policy and administrative management, Monetary institutions, Formal sector financial intermediaries, Informal/semi-formal financial intermediaries, Remittance facilitation, promotion and optimisation, Education/training in banking and financial services
Other social infrastructure & services	Social Protection, Employment creation, Housing policy and administrative management, Low-cost housing, Multisector aid for basic social services, Culture and recreation, Statistical capacity building, Narcotics control, Social mitigation of HIV/AIDS, Labour rights, Social dialogue
Health	Health policy and administrative management, Medical education/training, Medical research, Medical services, Basic health care, Basic health infrastructure, Basic nutrition, Infectious disease control, Health education, Malaria control, Tuberculosis control, COVID-19 control, Health personnel development, NCDs control, general, Control of harmful use of alcohol and drugs, Promotion of mental health and well-being, Other prevention and treatment of NCDs, Research for prevention and control of NCDs, Population policy and administrative management, Reproductive health care, Family planning, STD control including HIV/AIDS, Personnel development for population and reproductive health
Tourism	Tourism policy and administrative management
Mineral resources & mining	Mineral/mining policy and administrative management, Mineral prospection and exploration, Coal, Oil and gas (upstream), Nonferrous metals, Precious metals/materials, Industrial minerals, Offshore minerals
General budget support	General budget support-related aid

Note: Sector areas were classified according to the CRS guidelines and further consulted with internal and external experts.

Additional sector and thematic analyses

Additional methodologies for tracking ODF spending and activities that are related to biodiversity are included in this report, namely to identify whether activities support marine or terrestrial biodiversity; Ecosystem-based Adaptation (EbA) and Ecosystem-based Mitigation (EbM); Illegal Wildlife Trade (IWT); capacity development; and Indigenous Peoples and Local Communities (IPLCs). The following sub-sections provide details on the approaches used.

Marine and terrestrial biodiversity

To assess the financial flows targeting marine and terrestrial biodiversity, the SDGs 14 (marine) and 15 (terrestrial) tags could be used. However, reporting on these was only introduced in 2019 for 2018 flows. In this report, for bilateral donors a more granular approach is applied, based on data tracked through the Biodiversity Marker and SDGs 14 and 15 tags:

- First, a number of purpose codes found in the "Indicative Table for the Rio Marker for Biodiversity" (OECD, 2019[2]) can be directly identified as being marine or terrestrial related and, as such, are assigned to one of the two categories (see Table C.1 for the list of purpose codes).

- Second, for other purpose codes that cannot be directly assigned to marine or terrestrial categories, a keyword search is applied to the remaining eligible purpose codes corresponding to the "Indicative Table for the Rio Marker for Biodiversity". A complete list of biodiversity-related keywords can be found in Table C.2. This search will help assign activities to either marine or terrestrial categories. In some cases, activities may concern both categories – a third category reflects such cases. When activities cannot be assigned through this method, a manual review is applied.
- Lastly, once filters are applied, all projects were assessed to verify their positive contribution to biodiversity (e.g. do no harm to biodiversity).

Table C.2. Biodiversity-related purpose codes and keywords for bilateral donors, to distinguish between marine and terrestrial biodiversity

Steps	Category	Details
Step 1: Assign biodiversity-related purpose codes to marine or terrestrial categories for 2011-20	**Marine biodiversity**	Marine energy (23250)
	Terrestrial biodiversity	River basins development (14040), Road transport (21020), Feeder road construction (21021), National road construction (21023), National road maintenance (21024), Rail transport (21030), Air transport (21050), Geothermal energy (23260), Biofuel-fired power plants (23270), Agricultural land resources (31130), Agricultural water resources (31140), Food crop production (31161), Industrial crops/export crops (31162), Livestock (31163), Forestry development (31220), Fuelwood/charcoal (31261), Forest industries (32162), Modern biofuels manufacturing (32173)
Step 2: Apply a biodiversity-related keyword search to all other purpose codes under the Rio Marker as found in (OECD, 2019[2]) for the period 2011-20, including activities classified through the tagging of SDGs 14 and 15	**Marine biodiversity**	red algae, bay, beach, bivalves, blue abadi, blue action fund, blue carbon, blue economy, caribbean biodiversity fund, cetaceans, coast, coastal areas, coastal erosion, coastal eutrophication, coastal fishery resources, coastal flooding, coastal forest, coastal management, coastal protected areas, coastal resources, coastal tourism, coastal wetlands, coastal zones, coastline, commercial whaling, coral, coral reef, CZM, dolphin, Exclusive Economic Zone, EEZ, fin fish, grouper, gulf, Intergovernmental Oceanographic Commission, integrated coastal, integrated coastal management, ICM, island biodiversity, island protected area, islands protected areas, islands fisheries, kelp, marine pollution, laver, lionfish, lobster, manatee, mangroves, mangrove forests, mariculture, marine, marine activities, marine aquaculture, marine areas, marine biodiversity, marine ecosystem, marine environment, marine fisheries, marine institutions, marine management, marine protected areas, marine resources, marine sanctuary, marine tourism, marine turtles, maritime, mussels, ocean freight, oceanfront, oceanic, oceanographic, Oceanographic Data and Information Exchange, ocean-related, ocean, ocean fisheries, oceans, offshore, off-shore, offshore fisheries, offshore management, offshore renewable energy, oyster, pelagic, pelican, porpoises, prawn boats, problue, Protected Fishing Zones, ZPPs, rays, red snapper, reef, reef restoration, reef species, salt marsh, saltwater, sargassum, scallops, sdg 14, sdg14, sea, sea ship, sea turtle, sea vegetables, seabed, seabird, seafood, seagrass, sealife, seaport, seascape, seawall, seawater, seaweed, sea turtle, sharks, shorebird, shrimp, SIDS, Small Island Developing States, snapper, submarine, sunfish, tuna, tuna fisheries, whale, whale conservation, whales, whaling, deep-sea.
	Terrestrial biodiversity	Afforestation, agroecology, agroforestry, agroecosystems, agro-ecosystems, agri-environmental, agricultural, agricultural fields, agricultural lands, agriculture forestry, amazon, apes, bamboo, bat, bark, beetle, buffalo, bushmeat, bush, bush fires, butterfly, cats, chimpanzees, conifer, coniferous, continental, conservation landscape, corn, coffee, cotton, crop, croplands, danube, delta, deforestation, desertification, deciduous, drought, drylands, elephants, fluvial, forest, forest landscape, forest management, forestry, forestland, freshwater ecosystems, freshwater fisheries, freshwater turtles, freshwater wetlands, fruit trees, geese, gorillas, grasslands, groundwater, hawk, hayfields, highlands, hippo, horseback, horticulture, iguanas, inland aquaculture, inland fisheries, inland freshwater, ivory, jaguars, jungle, lagoon, lake, land, land-based, land degradation, land management, land use policies, landscape, livestock, lizards, lowland, lumber, macaws, mainland, milk, meadow, monkeys, mountain, mushroom, mudflats, orang-utan, pangolin, park encroachment, parrots, pollinators, prairies, pulp, owl, rainforest, rangelands, REDD, reforestation, rhinoceros, rhinos, riparian, river, rivers, riverbeds, savannah, sdg 15, sdg15, shrubland, soil, soy, soybeans, swamp, sustainable landscape, tapir, terrestrial, terrestrial protected area, tigers, timber, trees, upland, watershed, wetlands, wheat, woodlands, wildfire management.

Note: An additional filter is applied to ensure no land-locked countries are included in the marine biodiversity category. The list of keywords was derived using a search of the CRS database of biodiversity marked projects. In addition, marine biodiversity keywords builds upon the methodology put forward for the Sustainable Ocean Economy Framework (OECD, Forthcoming[3]). Keywords were also derived from the OECD PINE database [see (OECD, n.d.[4])]. The keyword search is done in English, French, Spanish, Portuguese and German.

Nature-based solutions and ecosystem-based approaches

The recent definition adopted by the United Nations Environment Assembly allows for the operationalisation of the concept through the CRS (UNEP, 2022[5]). The definition refers to "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits, and recognises that NbS: (…) effectively and efficiently address major social, economic and environmental challenges, such as biodiversity loss, climate change, land degradation, desertification, food security, disaster risks, urban development, water availability, poverty eradication, inequality and unemployment, as well as social development, sustainable economic development, human health and a broad range of ecosystem services" (UNEP, 2022[5]). The concept of NbS is a broader term generally used for Ecosystem-based Approaches – and often used interchangeably. However, there is no globally agreed definition on what constitutes ecosystem-based approaches. For the purpose of this analysis, the umbrella concept for ecosystem approaches put forward by the CBD is retained (Lo, 2016[6]), i.e. a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Although this concept is broader, for the purpose of this report, the definition seeks to be operationalised mainly for the following subsets:

- Ecosystem-based adaptation (EbA), according to CBD (SCBD, 2009[7]) refers to the use of biodiversity and ecosystem services in an overall adaptation strategy – including the sustainable management, conservation and restoration of ecosystems to provide services that help people adapt to the adverse effects of climate change. Ecosystem-based disaster risk reduction (Eco-DRR), in turn, is the sustainable management, conservation and restoration of ecosystems to reduce disaster risk, with the aim of achieving sustainable and resilient development (Estrella and Saalismaa, 2013[8]). As stated in (CBD, 2018[9]), while EbA and Eco-DRR are conceptually similar and overlap, the former largely addresses climate hazards and impacts, the latter addresses extreme weather events (such as tropical cyclones, floods and droughts), it also tackles events that are not necessarily linked to the effect of climate variations (e.g. earthquakes, tsunamis). Yet, in practice, EbA and Eco-DRR are difficult to distinguish, and here will be identified through the combined use of the climate change adaptation, disaster risk reduction and biodiversity markers.
- Ecosystem based-mitigation (EbM), according to UNEP-WCMC (Doswald and Osti, 2011[10]), refers to the use of ecosystems for their carbon storage and sequestration service to aid climate change mitigation. Emissions reductions are achieved through the protection, restoration and management of ecosystems (e.g. forest restoration, agroforestry).

These definitions were used to select purpose codes, as can be seen in Table C.3, and will be used to identify EbA and EbM for bilateral donors. The analysis will be applied to activities identified with the biodiversity Rio Marker, cross-checking with the climate change adaptation marker to delineate EbA, the DRR marker to delineate Eco-DRR, and the climate change mitigation marker for EbM.

Table C.3. Ecosystem-based approaches related purpose codes

Concept	Definition	Purpose codes
Ecosystem-based adaptation / Eco-DRR	The use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change The sustainable management, conservation and restoration of ecosystems to reduce disaster risk, with the aim of achieving sustainable and resilient	Water sector policy and administrative management (14010), Water resources conservation (including data collection) (14015), Water supply and sanitation - large systems (14020), Water supply - large systems (14021), Basic drinking water supply and basic sanitation (14030), Basic drinking water supply (14031), River basins development (14040), Education and training in water supply and sanitation (14081),Agricultural policy and administrative management (31110), Agricultural development (31120), Agricultural land resources (31130), Agricultural water resources (31140), Agrarian reform (31164), Agricultural extension (31166), Agricultural education/training (31181), Agricultural research (31182), Plant and post-harvest protection and pest control (31192), Forestry policy and administrative

Concept	Definition	Purpose codes
	development	management (31210), Forestry development (31220), Forestry education/training (31281), Forestry research (31282), Fishing policy and administrative management (31310), Fishery development (31320), Fishery education/training (31381), Fishery research (31382), Tourism policy and administrative management (33210), Environmental policy and administrative management (41010), Biosphere protection (41020), Biodiversity (41030), Environmental education/training (41081), Environmental research (41082), Urban development and management (43030), Urban land policy and management (43031), Urban development (43032), Rural development (43040), Rural land policy and management (43041), Rural development (43042); Disaster risk reduction (43060).
Ecosystem-based mitigation	The use of ecosystems for their carbon storage and sequestration service to aid climate change mitigation. Emissions reductions are achieved through creation, restoration and management of ecosystems (e.g. forest restoration, peat conservation)	Waste management/disposal (14050), Transport policy and administrative management (21010), Water transport (21040), Energy research (23182), Energy conservation and demand-side efficiency (23183), Agricultural policy and administrative management (31110), Agricultural development (31120), Agricultural land resources (31130), Agricultural water resources (31140), Agricultural inputs (31150), Food crop production (31161), Industrial crops/export crops (31162), Livestock (31163), Agrarian reform (31164), Agricultural extension (31166), Agricultural education/training (31181), Agricultural research (31182), Agricultural services (31191), Forestry policy and administrative management (31210), Forestry development (31220), Forestry education/training (31281), Forestry research (31282), Fishing policy and administrative management (31310), Fishery services (31391), Tourism policy and administrative management (33210), Environmental policy and administrative management (41010), Biosphere protection (41020), Biodiversity (41030), Environmental education/training (41081), Environmental research (41082), Urban development and management (43030), Urban land policy and management (43031), Urban development (43032), Rural development (43040), Rural land policy and management (43041), Rural development (43042).

Illegal wildlife trade

Activities targeting SDGs 15.7 and 15.c for 2018-20 flows were used to identify efforts to stop poaching and trafficking of protected species, as well as the trading of wildlife products (UN, 2018[11]). In addition, illegal wildlife trade (IWT) was identified using a keyword search. These were selected based on a range of IWT-related definitions by (CBD, 2021[12]); (World Bank, 2019[13]); (IUCN, 2022[14]); (Wright et al., 2016[15]); (BBOP, 2012[16]); and (CITES, n.d.[17]). The search was applied to DAC members, see Table C.4.

Table C.4. Illegal wildlife trade related keywords

Concept	Keywords
Illegal Wildlife Trade	Anti-poaching, anti-snare, anti-trafficking, bribery, camera-trap, CITES, combat wildlife, combating wildlife, combatting wildlife, confiscated animals, conservation, Convention on International Trade in Endangered Species of Wild Fauna and Flora, CITES, corruption, cross-border, customs, decision support tools, detection, ecotourism, endangered, equipment, Fauna and Flora International, fight wildlife, forest crime, habitats, human-wildlife conflict, illegal chainsaw, illegal cross-border trade, illegal forest encroachment, illegal hunting, illegal killing, park encroachment, illegal supply chain, illegal trading, illegal wildlife trade, illicit trade, international trafficking of wildlife, land management, land use policies, loss, damage and sanctions, monitoring, natural resource management practices, poaching, protected area, protecting wildlife, protection, rangers, reserves, SDG 15.7, sdg15.7, smuggling, snare, sniffer dog, stop, wildlife crime, wildlife trade, wildlife trafficking.

Note: The keywords 'illicit' and 'illegal' can be accompanied by several terms (e.g. timber, harvest, financial flows, trafficking, logging, trade, wildlife). Thus, some keywords only trigger identification if they appear in conjunction with another keywords (e.g. "illicit" only triggers inclusion if any one of a set of keywords including "timber", "harvest", etc. also appears in the same string. This prevents projects that do not target IWT from being included in the estimate. The keyword search is done in English, French, Spanish, Portuguese and German.

Capacity development

A methodology was developed to account for the amounts corresponding to biodiversity-related capacity development. As such, the analysis is based on activities tagged with the Biodiversity Marker, SDG 14 and SDG 15, and biodiversity-related purpose codes, which are classified in the CRS as sector budge support,

technical assistance, technical co-operation and scholarships/training costs (co-operation modalities D01, D02 and E01). These activities are filtered for a number of purpose codes that contribute to developing biodiversity-related capacities in partner countries, as defined by the CBD's Long-term Strategic Framework 2020 (CBD, 2020[18]). Accordingly, capacity development is the process whereby people, organisations and society as a whole, unleash, strengthen, create, adapt and maintain capacity over time, in order to achieve biodiversity results. Using this overarching definition, purpose codes were classified using the CBD's levels of capacity, namely: enabling environment, organisational level, and individual level. A number of additional purpose codes were also retained, when the CRS purpose code definition pointed towards biodiversity-related capacity development (see Table C.5).

Table C.5. Capacity development for biodiversity purpose codes by level of capacity

Levels of capacity	Description	Purpose Codes
Enabling environment	Broad system and set of conditions needed for organisations and individuals to function in pursuit of their goals. These may be policies, laws, agreements, conventions, protocols and social norms. It also relates to the political will for change, relationships with external actors and the availability of resources.	Water sector policy and administrative management (14010), Macroeconomic policy (15142), Transport policy and administrative management (21010), Communications policy and administrative management (22010), Communications policy, planning and administration (22011), Energy policy and administrative management (23110), Energy sector policy, planning and administration (23111), Energy regulation (23112), Energy generation, renewable sources - multiple technologies (23210), Financial policy and administrative management (24010), Business policy and administration (25010), Privatisation (25020), Responsible business conduct (25040), Agricultural policy and administrative management (31110), Forestry policy and administrative management (31210), Fishing policy and administrative management (31310), Industrial policy and administrative management (32110), Mineral/mining policy and administrative management (32210), Construction policy and administrative management (32310), Trade policy and administrative management (33110), Tourism policy and administrative management (33210), Environmental policy and administrative management (41010), Urban development and management (43030), Urban land policy and management (43031), Rural land policy and management (43041).
Organisational level	Internal structures, processes and procedures, leadership, management systems, and other elements that influence the ability of any government or non-government actor, network or partnership, to operate effectively and achieve their mission.	Water resources conservation (including data collection) (14015), Education and training in water supply and sanitation (14081), Education and training in transport and storage (21081), Energy education/training (23181), Energy research (23182), Education/training in banking and financial services (24081), Agricultural extension (31166), Agricultural education/training (31181), Agricultural research (31182), Forestry education/training (31281), Forestry research (31282), Fishery education/training (31381), Fishery research (31382), Trade education/training (33181), Environmental education/training (41081), Environmental research (41082), Multisector education/training (43081), Research/scientific institutions (43082)
Individual level	Knowledge, skills, expertise, attitude and experience of the people within organisations or systems who need capacity to do their work effectively.	Public sector policy and administrative management (15110), Administration of developing countries' foreign aid (15123), Public finance management (PFM) (15111), Domestic revenue mobilisation (15114), Public Procurement (15125), Legal and judicial development (15130), Women's rights organisations and movements, and government institutions (15170), Statistical capacity building (16062), Social dialogue (16080), Agricultural co-operatives (31194), Technological research and development (32182), Trade facilitation (33120), Multilateral trade negotiations (33140), Multi-hazard response preparedness (74020)

Indigenous people and local communities (IPLCs)

The methodology chosen to depict ODF targeting Indigenous People and Local Communities (IPLCs) builds upon a keyword search based on a range of definitions provided by (IUCN, 2022[19]); (CBD, 2008[20]); (UN, 1982[21]); (BBOP, 2021[22]); (IFC, 2012[23]); (Corrigan and Hay-Edie, 2013[24]); and (Rainforest

Foundation Norway, 2021[25]). These are applied to DAC members reporting on the Biodiversity Marker, SDGs 14 and 15 and the biodiversity-related purpose codes (see Table C.6).

Table C.6. Indigenous People and Local Communities related keywords

Concept	Keywords
Indigenous People and Local Communities	Alternative livelihoods; Indigenous peoples; indigenous lands; indigenous territories; indigenous landscapes; descendants; indigenous knowledge; indigenous areas; indigenous communities; indigenous rural; descendent; ethnic; colonial; tradition; traditional ecological knowledge; local knowledge; traditional knowledge; tribal; spiritual; identity; participatory management; institutional arrangement; local users; local community; local communities; coastal communities; rural village; clan; inhabitants (has to be plural); indigenous cultural; cultural groups; ethnic groups; ancestral; ancestral domain; ancestral territories; dialect; ICCAs; ICCA; community conserved; community conservation; indigenous ethnic; ethnic minorities; aboriginal; hill tribes; scheduled tribes; tribal groups; tribal; tribal communities; land governance; family farming; forest governance; land rights; resource rights; customary; land tenure; tenure; intercultural; rural communities; forest communities; cultural identity; traditional identity.

Note: The keyword 'indigenous' can be accompanied by several terms (e.g. species and livestock). Thus, some keywords only trigger identification if they appear in conjunction with another keywords (e.g. "indigenous" only triggers inclusion if any one of a set of keywords including "species", "rights", etc. also appears in the same string. This prevents projects that do not target IPLCs from being included in the estimate. The keyword search is done in English, French, Spanish, Portuguese and German.

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A Decade of Development Finance for Biodiversity

The report provides an overview of development finance with biodiversity-related objectives from a wide range of sources: bilateral Development Assistance Committee (DAC) members, non-DAC and South-South and triangular co-operation providers, multilateral institutions, private finance mobilised by development finance, and private philanthropy. The estimates are based on OECD statistical data. The report identifies the main gaps between biodiversity-related priorities and investments and provides detailed estimates on financial allocations to the fight against illegal wildlife trade; nature-based solutions; indigenous peoples and local communities; the mainstreaming of biodiversity; gender equality; and climate change. These elements can help DAC members and other stakeholders to step up and target their biodiversity-related investments, notably to implement the Kunming-Montreal Global Biodiversity Framework under the Convention on Biological Diversity.

PRINT ISBN 978-92-64-86274-6
PDF ISBN 978-92-64-34287-3

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