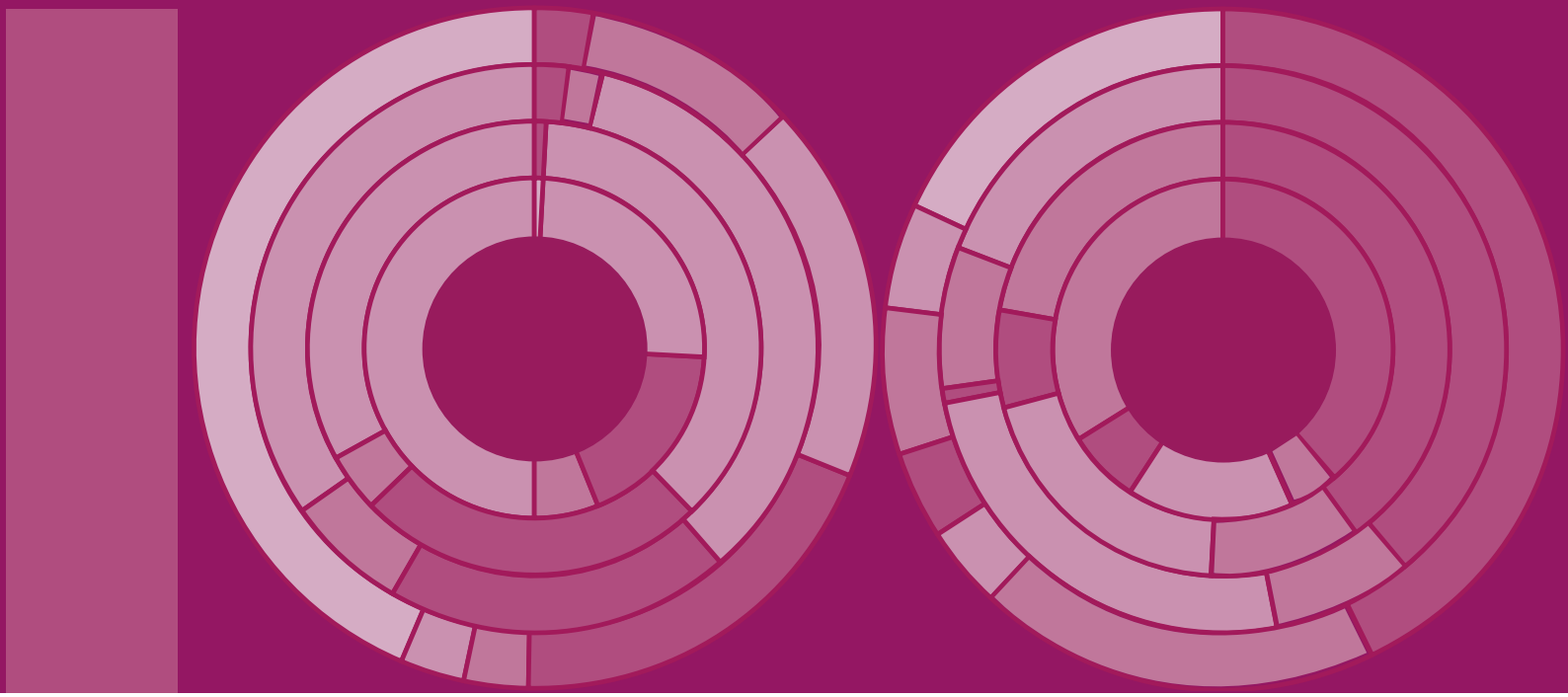
Technical Report

UNFCCC Standing Committee on Finance

Second report on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation



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Within the SCF, the report on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation was prepared under the guidance of the co-facilitators, Gabriela Blatter and Richard Muyungi. The report has benefited from inputs and guidance from SCF members in 2024, including Kevin Adams, Patriciah Roy Akullo, Mohammad Ayoub, Diann Black-Layne, Zaheer Fakir, Sho Ikeda, Ali Waqas Malik, Apollonia Miola, Petrus Muteyauli, Ian Naumkin, Vicky Noens, Karima Oustadi, Diego Pary Rodriguez, Elene Cristina Pereira Colindres, Hendrikje Reich, Clara Schultz, Brittany Young and Zhu Liucai.

EXECUTIVE SUMMARY BY THE STANDING COMMITTEE ON FINANCE

I. Introduction

A. Context and mandate

1. In 2010, COP 16 recognized that developed country Parties committed, in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries.[1] Subsequent decisions provided some elaboration on the nature of the goal. COP 17 adopted biennial reporting guidelines for developed country Parties that recognize that the goal includes private financial sources,[2] while COP 18 urged developed country Parties to scale up climate finance from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources, to the joint goal of mobilizing USD 100 billion per year by 2020.[3] COP 21 extended the goal from 2020 through to 2025.[4] In 2022, the SCF prepared the first report on progress towards achieving this goal[5] in response to a mandate from COP 26.[6]

2. COP 27 noted the technical report of the SCF referred to in paragraph 1 above and the quantitative and qualitative information presented therein.[7] It requested the SCF to prepare biennial reports, including a summary of key findings, on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation, taking into account other relevant reports, for consideration at COP 29, COP 31 and COP 33 and noted that the final report will be considered in the context of matters relating to the SCF.[8]

B. Scope and approach

3. The second report on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation comprises a technical report[9] and this executive summary. The technical report was subject to extensive stakeholder input and expert review.

4. The report presents quantitative and qualitative information from a wide variety of sources relevant to the three dimensions of the goal, namely (1) mobilizing jointly USD 100 billion per year by 2020 through to 2025, (2) addressing the needs of developing countries and (3) achieving the goal in the context of meaningful mitigation actions and transparency on implementation. In addition, the report, where possible, analyses the interlinkages between the three dimensions of the goal to gain insight into overall progress towards its achievement.

5. In terms of scope, for the first dimension of the goal as expressed in para. (mobilizing finance), the report considers the most recent available backward-looking and forward-looking information and data for 2010–2025; for the second dimension (addressing needs), the report considers information that is both backward- and forward-looking in nature) and the most recent information on needs, which has varying time frames such as up until 2025 or 2030; and for the third dimension (context), the report considers the most recent backward-looking information such as trends in emissions, climate action and reporting transparency, as well as forward-looking information on mitigation ambition to 2025, 2030 and beyond.

6. The approach followed in preparing the report was to consider the following sources of information across all three dimensions: Parties' national reports and submissions under the Convention and the Paris

1 Decision 1/CP.16, para. 98
2 Decision 2/CP.17, annex I, para. 19.
3 Decision 1/CP.18, para. 66.
4 Decision 1/CP.21, para. 53.
5 SCF. 2022. Report on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation. Bonn: UNFCCC. Available at https://unfccc.int/process-and-meetings/bodies/constituted-bodies/standing-committee-on-finance-scf/progress-report.
6 Decision 4/CP.26, para. 19.
7 Decision 13/CP.27, para. 13.
8 Decision 13/CP.27, para. 15.
9 The technical report will be made available on the SCF web pages (https://unfccc.int/SCF).

Agreement; technical reports prepared by the SCF or the secretariat, such as the BA and the NDR; and other reports with specific relevance to the goal. Where possible, the report presents information disaggregated by thematic area (mitigation, adaptation or cross-cutting), financial instrument, sector and geographical distribution of finance (including the LDCs and SIDS). The impacts and outcomes of climate finance are also reflected on in the report.

7. In addition to gathering information and data from those sources and conducting a literature review, the SCF issued a call for inputs from Parties and other stakeholders on preparation of the second report, including on sources of information, trends, challenges and lessons learned.[10] The SCF also conducted a stakeholder engagement webinar on 30 April 2024.

C. Challenges and limitations

8. There is no multilaterally agreed accounting methodology for tracking progress towards achieving the USD 100 billion per year goal.

9. The use of different methodologies by Parties and data aggregators poses challenges when aggregating data on climate finance to inform an assessment of progress towards the collective goal. The reporting system under the Convention and the ETF under the Paris Agreement provide a framework for a bottom-up approach to transparency whereby countries can follow self-determined methodologies for tracking, measuring and reporting on climate finance provided, mobilized, needed and received, as well as to defining climate finance. Challenges related to aggregating information on this basis include the use of variable definitions of 'mobilization', whether climate finance committed and/or disbursed is counted towards progress, the use of different time frames (e.g. calendar year or fiscal year), the use of different currencies and exchange rates and differing approaches to calculating climate specificity and others.

10. There are also challenges in assessing the nature and extent of causal linkages between the three different dimensions of the goal owing to the non-standardized nature of available data (e.g. on needs and projected levels of climate finance) and lack of available information that considers all three dimensions holistically and over the same time frame. Given these limitations, the report reflects qualitatively on how these dimensions have evolved over time and any potential relationship between them.

II. Key findings

A. Mobilizing jointly USD 100 billion per year

11. In the absence of a multilaterally agreed accounting methodology for assessing progress towards achieving the goal of mobilizing jointly USD 100 billion per year by 2020 through to 2025, the assessment in this report is guided by the wording of the goal and relevant subsequent decisions Based on this, the report aims to assess the progress building on the available sources of information, which apply different accounting methodologies and take into account different sources, channels and financial instruments (Figure 1).

12. The OECD report series on climate finance and the USD 100 billion goal[11] pursues an approach and methodology that accounts for finance from a wide variety of sources, including bilateral finance based on official reporting in BRs under the Convention, multilateral public finance outflows from MDBs and multilateral climate funds attributed to developed countries, export credits and private finance mobilized from developed to developing countries.[12] It also covers the face value of instruments such as grants, loans and equity finance. According to the latest OECD report[13], published in May 2024, in 2022 developed country Parties provided and mobilized a total of USD 115.9 billion in climate finance for developing country Parties, thereby reaching their collective annual goal of mobilizing USD 100 billion for climate action in developing country Parties for the first time.

10 As at 30 June 2024, four submissions had been received; these are available at https://unfccc.int/topics/climate-finance/resources/standing-committee-on-finance-info-repository.

11 See https://www.oecd.org/climate-change/finance-usd-100-billion-goal/.

12 Data on export credits and private finance mobilized reported in BRs are included in the appropriate sections of this report.

13 OECD. 2024. ***Climate Finance Provided and Mobilised by Developed Countries in 2013–2022.*** OECD. Available at https://www.oecd.org/en/publications/2024/05/climate-finance-provided-and-mobilised-by-developed-countries-in-2013-2022_8031029a.html

13. Oxfam's assessment *Climate finance short-changed, 2024 update*[14] does not contest the technical accuracy of the OECD report in measuring progress according to the methodology agreed by developed countries, but states its aim is to measure the financial effort by developed countries through discounting loan repayments, non-concessional loans and excluding certain instruments. The assessment used data reported to the OECD Development Assistance Committee on climate-related development finance to calculate grant-equivalent values and applied a more conservative approach to accounting for the climate relevance of provided funds (i.e. the proportion of a project's funding volume that can be considered to specifically support climate action) than the approach applied by Parties in their BRs. The assessment did not include the full range of financial instruments and it did not include private or innovative sources of finance. In its assessment, estimates of climate finance provided in grants and grant-equivalent amounts were in the range of USD 28–35 billion in 2022. According to Oxfam, its estimates indicate that the actual financial effort by developed countries to support climate action in developing countries is vastly lower than the figures in the OECD report seem to suggest.

14. Preliminary estimates collected from Parties by the SCF in preparing the sixth BA[15] indicate that climate-specific finance provided and mobilized amounted to USD 67.1 billion in 2022.[16] An analysis of BURs received as at 30 June 2024 found that 20 non-Annex I Parties reported USD 1.3 billion of climate finance received in 2022. These estimates do not include the full range of sources and channels, such as outflows from multilateral institutions or private finance mobilized by multilateral institutions, in preliminary estimates of climate finance provided and mobilized and all bilateral and multilateral climate finance flowing to developing countries in estimates of climate finance received.

14 Oxfam. 2024. Climate Finance Short-Changed 2024 update. Oxfam. Available at https://oxfam.app.box.com/s/q32guouexhj6proorwm8f14sv6nvan77.

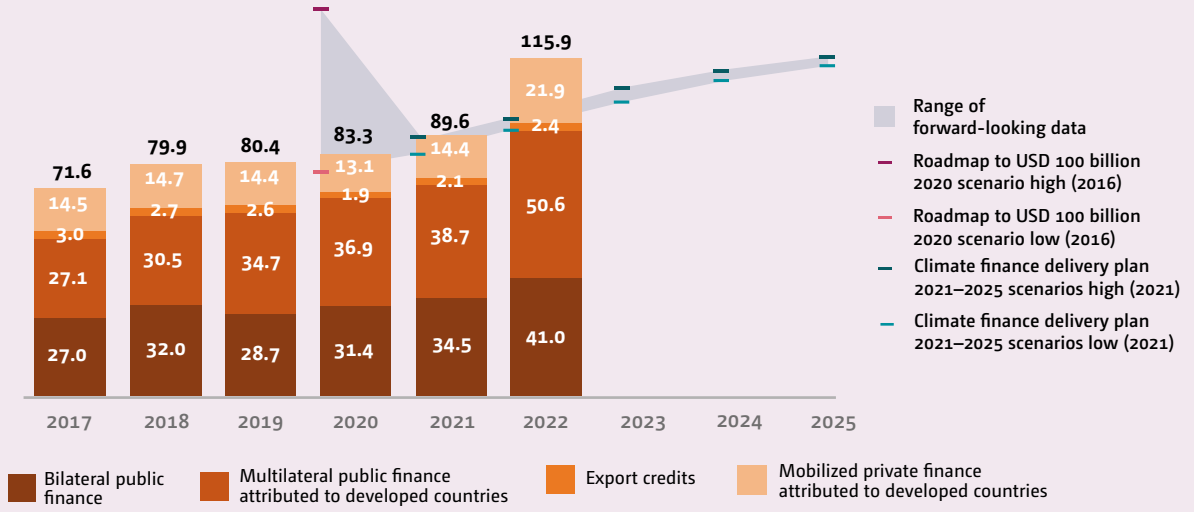
15 SCF. 2024. Sixth Biennial Assessment and Overview of Climate Finance Flows. Bonn: UNFCCC. Available at https://unfccc.int/topics/climate-finance/resources/biennial-assessment-and-overview-of-climate-finance-flows

16 Data are treated as partial and preliminary and subject to change once the BTRs are submitted at the end of 2024.

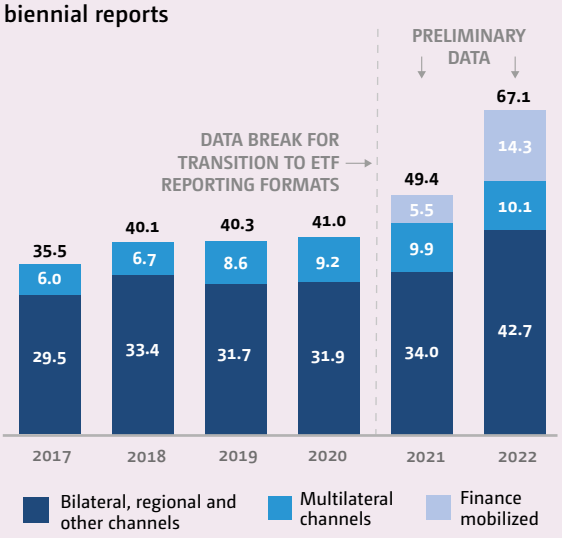
Figure 1

Trends in aggregate estimates from backward and forward-looking information
(Billions of United States dollars, annualized)

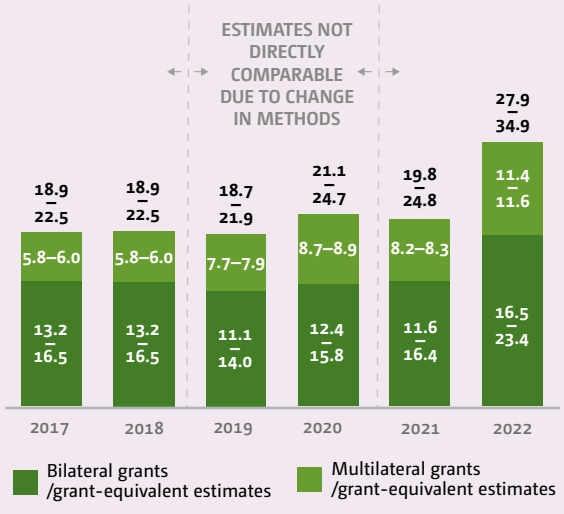
OECD climate-finance provided and mobilized and forward-looking scenarios based on OECD analysis



Climate-specific finance reported through Parties biennial reports



Oxfam climate-specific net assistance



Sources: Data from OECD. 2024. Climate Finance Provided and Mobilised by Developed Countries in 2013–2022. OECD. Available at https://www.oecd.org/en/publications/2024/05/climate-finance-provided-and-mobilised-by-developed-countries-in-2013-2022_8031029a.html;Government of the United Kingdom and Government of Australia. 2016. Climate Finance Roadmap to US$100 Billion. London. Available at https://www.gov.uk/government/publications/climate-finance-roadmap-to-us100-billion; Ministry of Environment and Climate Change, Canada and Federal Foreign Office, Germany. 2021. Climate Finance Delivery Plan: Meeting the US$100 Billion Goal. Available at https://www.canada.ca/en/services/environment/weather/climatechange/canada-international-action/climate-finance/delivery-plan.html; SCF. 2024. Sixth Biennial Assessment and Overview of Climate Finance Flows. Bonn: UNFCCC. Available at https://unfccc.int/topics/climate-finance/resources/biennial-assessment-and-overview-of-climate-finance-flows; Oxfam. 2024. Climate Finance Short-Changed 2024 update. Oxfam. Available at https://oxfam.app.box.com/s/q32guouexhj6proorwm8f14sv6nvan77.

Notes: (1) Forward-looking data comprise pledges made up to 20 October 2021 in the Climate Finance Delivery Plan; (2) the dashed lines indicate values for which data are not comparable with previous years owing to a change in method or scope of reporting; (3) the values for climate-specific finance reported by Parties for 2021 and 2022 are preliminary data that are subject to change after the submission deadline for BTRs of 31 December 2024; (4) the Oxfam graph is based on analyses that make assumptions on finance sources and financial instruments not aligned with the language of the USD 100 billion goal.

15. Irrespective of the source of information, some common findings emerge. Although the annual goal was not met in 2020 or 2021,[17] the overall trend is one of substantial growth in climate finance flows to developing countries since the first report on progress towards achieving the goal was produced by the SCF in 2022. OECD estimates growth in climate finance provided and mobilized by developed countries of 39 per cent between 2020 and 2022, while Oxfam estimates growth of 32–41 per cent depending on whether the low or high end of its estimated range of finance is considered. Preliminary estimates collected from Parties by the SCF in preparing the sixth BA indicate climate finance has increased by an estimated 63 per cent since the amount reported in the BR5s of Annex I Parties for 2020; however, the data are difficult to compare across years owing to the expanded scope of reporting in BTRs due at the end of 2024 compared with BRs.

16. Compared with the forward-looking projections for 2021–2025 outlined in the Climate Finance Delivery Plan published in October 2021,[18] the estimates in the OECD report for 2022 show that the threshold of USD 100 billion was achieved one year ahead of when it was expected to be achieved (although still two years after the initial goal year of 2020) and is within the range of the 2025 projection of USD 113–117 billion.

Channels

17. For climate finance provided through bilateral channels, the trend is one of a similar rate of growth from 2020 to 2022 according to all sources of information: 34 per cent in preliminary estimates from Parties, 31 per cent in the OECD report (USD 41.0 billion) and 33–48 per cent in Oxfam's assessment (USD 16.5–23.4 billion).

18. Climate finance through multilateral channels also saw a significant increase since 2020, of 37 per cent in the OECD report (USD 50.6 billion) and 30–31 per cent in Oxfam's assessment (USD 11.4–11.6 billion). Growth was much lower, 10 per cent, in preliminary estimates collected from Parties by the SCF in preparing the sixth BA as the flows reported therein predominantly constitute inflows from Parties to multilateral institutions rather than the outflows from multilateral institutions to developing countries that are captured in the other sources of information. The key driver of growth in climate finance provided through multilateral channels was MDBs: growing by 41 per cent since 2020 according to the OECD report (USD 46.9 billion) and 45 per cent according to Oxfam's assessment (USD 10.3 billion). However, multilateral climate funds saw decreases in the amount of climate finance outflows in 2022 of 19 per cent according to the OECD report and 28–31 per cent according to Oxfam's assessment, as the Green Climate Fund and other multilateral climate funds transitioned between replenishment and programming periods.

19. A significant increase in private finance mobilized by both bilateral and multilateral channels of 67 per cent in 2022 (USD 21.9 billion) since 2020 was reported in the OECD report. Preliminary estimates from Parties were able to separate this information for the first time, albeit predominantly only finance mobilized by bilateral channels, and also recorded significant increases in 2022 compared with 2021.

Thematic focus

20. The trend in the thematic focus of climate finance since 2020 has been mixed. Adaptation-specific climate finance decreased in 2021 by approximately 10 per cent according to preliminary estimates collected from Parties by the SCF in preparing the sixth BA, 14 per cent according to the OECD report and 7–9 per cent according to Oxfam's assessment, before rebounding in 2022 by 23 per cent (reaching USD 13.9 billion), 32 per cent (reaching USD 32.4 billion) and 42–43 per cent (reaching USD 12.7–14.9 billion) according to those sources respectively, thus returning to an upward trend.

21. Climate finance for mitigation showed steady growth in 2021 followed by a significant rise in growth in 2022. Preliminary estimates from Parties indicate increases of 20 per cent in 2021 and 69 per cent in 2022 (reaching USD 38.5 billion), though this likely reflects the expanded reporting on finance mobilized by public interventions, which is predominantly for mitigation, in forthcoming BTRs compared with BRs. OECD reported 11 and 30 per cent annual growth rates in 2021 and 2022 respectively (reaching USD 69.9 billion), while Oxfam reported a decrease in mitigation finance of 20 per cent in 2021 followed by a 46–47 increase in 2022 (reaching USD 11.4–13.1 billion).

17 See decisions 13/CP.27, para. 3, and 4/CP.28, para. 3.

18 Ministry of Environment and Climate Change, Canada and Federal Foreign Office, Germany. 2021. Climate Finance Delivery Plan: Meeting the US$100 Billion Goal. Available at https://www.canada.ca/en/services/environment/weather/climatechange/canada-international-action/climate-finance/delivery-plan.html

22. While dealing with relatively smaller amounts, climate finance for cross-cutting mitigation and adaptation actions also grew significantly according to all sources of information, more than doubling between 2020 and 2022 according to the OECD report (reaching USD 13.6 billion) and Oxfam's assessment (reaching USD 3.8–7.0 billion) and increasing by 49 per cent according to preliminary estimates from BTRs (reaching USD 13.1 billion).

Financial instruments

23. Substantial growth in the volume of grant finance was reported in the available sources of information.[19] The OECD report stated a 43 per cent increase in grant finance from bilateral and multilateral sources between 2020 and 2022 (reaching USD 25.6 billion) while Oxfam reported a 26–30 per cent increase between 2021 and 2022 (reaching USD 20.3–26.6 billion). Loans from bilateral and multilateral sources also grew according to the OECD report, by 31 per cent since 2020 to reach USD 63.6 billion in 2022. The OECD report does not provide an aggregate of concessional and non-concessional loans owing to definitional differences in use. For bilateral finance, 79 per cent of loans over the 2016-2022 period were concessional. Forty-one per cent of loans from multilateral climate funds were classified as concessional along with 23 per cent of MDB loans. Oxfam's estimate of the grant-equivalent value of concessional loans from bilateral and multilateral sources almost doubled between 2021 and 2022 to reach USD 7.5–8.4 billion.

B. Addressing the needs of developing countries

24. This subchapter presents an analysis of 2020–2022 finance flows compared with the needs identified in the second NDR.[20] It investigates needs by thematic area and sector, finance sources and financial instruments utilized in providing and mobilizing finance that responds to needs, and the geographical distribution of climate finance.

25. According to the second NDR, the NDCs from 142 Parties contain a total of 5,760 needs. Of these, 2,753 (48 per cent) were costed needs reported by 98 Parties, amounting to USD 5.036–6.876 trillion. Given that these needs represent the largest number of Parties reporting costed needs across different types of reports, they are the most representative for this metric. It is understood that the costed needs presented in NDCs do not reflect the entirety of needs across developing country Parties and regions. The first NDR identified costed needs reported by 78 Parties amounting to USD 5.8–5.9 trillion up until 2030. Accounting for a similar time frame out to 2030, for comparative purposes, the costed needs from the latest NDCs amount to USD 5.012–6.852 trillion cumulatively out to 2030. As identified in the first NDR, the starting points for costed needs out to 2030 in NDCs vary significantly, with some indicating a 2015–2030 time frame, and others 2020–2030. Therefore, an annualized cost estimate across different time frames ending by 2030 of implementing the costed needs reported by 98 countries is in the range of USD 455–584 billion per year.[21]

26. While the USD 100 billion goal was not set with the intention of meeting all of the needs of developing countries, it does state that the goal is to address the needs. Comparing the proportional distribution of current climate finance flows against the distribution of needs of developing countries identified in the second NDR can be relevant for a qualitative assessment.

Thematic areas

27. In terms of share of the number of needs, adaptation needs represent 48 per cent of the total number of needs identified in 145 NCs, 46 per cent in 142 NDCs and 14 per cent in 96 BURs.[22] In NDCs, 16 per cent of the costed needs were identified as being for adaptation, while in NCs this figure was 58 per cent and in BURs it was 46 per cent, reported by 98, 57 and 55 developing country Parties respectively. Mitigation needs constitute most of the remaining share of needs, although cross-cutting needs are prominent in BURs and as costed needs in NDCs (see figure 2).

28. The latest available data on finance flows show that although the share of adaptation finance has grown strongly in recent years, the share of mitigation finance remains relatively larger. The share of climate finance for adaptation reported for 2020 in the BR5s and for 2021–2022 in the preliminary estimates from Parties is 24 per cent. The corresponding shares in the OECD report and Oxfam's assessment are 30 and 44 per cent respectively. Compared with the first report on progress towards

19 Preliminary estimates from some Parties do not include information on instruments.

20 SCF. 2024. Second report on the determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement. Bonn: UNFCCC. Available at https://unfccc.int/topics/climate-finance/workstreams/determination-of-the-needs-of-developing-country-parties/first-report-on-the-determination-of-the-needs-of-developing-country-parties-related-to-implementing

21 Further information is available in section 2.1 of the second NDR.

22 Reports from 154 non-Annex I Parties were reviewed for the second NDR. No needs were identified in 10 NCs, 14 NDCs and 8 BURs.

achieving the goal, adaptation finance has a lower share in overall finance, dropping from 28 to 24 per cent according to the preliminary estimates from Parties and from 34 to 30 per cent according to the OECD report, with an overall increase in adaptation finance from USD 12.5 billion (of a total of USD 41 billion of climate-specific finance) in 2020 according to BRs to USD 13.9 billion of a total of USD 67.1 billion in 2022 according to preliminary estimates from Parties, and from USD 28.6 billion (of a total of USD 83.2 billion) of climate finance provided and mobilized in 2020 to USD 32.4 billion of a total USD 115.9 billion of climate finance provided and mobilized in 2022 according to the OECD report. Owing to how it accounts for grants and the grant-equivalent value of concessional loans, Oxfam's estimates show a larger proportion of adaptation finance in overall finance, and an increase since the first report on progress towards achieving the goal (from 31 to 44 per cent), as adaptation activities typically receive a greater amount of grant financing than mitigation activities. In addition, since 2020 the growth in the provision and mobilization of cross-cutting finance, which serves both adaptation and mitigation objectives, has added further complexity to understanding whether adaptation-specific or mitigation-specific needs are also being addressed through those flows.

Sectors

29. An analysis of sector-level climate finance flows is limited to the OECD report, which provides sector-level data for climate finance, by thematic area, while the other sources of information do not. Adaptation activities are spread across various sectors. In an analysis of BURs, NCs and NDCs, most adaptation needs expressed by developing countries were in the agriculture and forestry sector (25–37 per cent) or the water supply and sanitation sector (18–25 per cent). Most adaptation finance provided and mobilized from 2016 to 2022 flowed to these sectors (18 and 19 per cent respectively). More finance has been directed at transport (10 per cent) than the corresponding needs (1–2 per cent).

30. For mitigation, finance for the energy and transport sectors amounted to 62 per cent of total climate finance provided and mobilized from 2016 to 2022. These sectors were also prominent in terms of reported mitigation needs (44–51 per cent). In contrast, the agriculture and forestry sector accounted for 16–25 per cent of needs but only 4 per cent of finance flows. Finance was also reported as flowing to the banking and financial services sector (7 per cent) whereas this sector does not feature significantly in needs identification. This highlights the differences in reporting how finance for climate action is often channelled through financial intermediaries in developing countries compared to reporting on needs in the real economy.

Finance sources and financial instruments

31. Developing countries, particularly those with high debt burdens, often state their need for more concessional public finance for addressing capacity gaps and implementing adaptation actions. Grant finance grew strongly (by 43 per cent according to the OECD report and by 26–28 per cent according to Oxfam's assessment) since 2020 according to all sources of information, as did the grant-equivalent estimates of concessional loans (according to Oxfam's assessment). However, grant finance constitutes 28 per cent of total climate finance provided and mobilized according to the OECD report. A key aspect in the growth in climate finance driven by MDBs is the prevalence of loans, a result of their business model. Climate finance in the form of loans therefore also grew significantly (by 31 per cent) over the same period, and accounts for 69 per cent of total climate finance provided and mobilized.

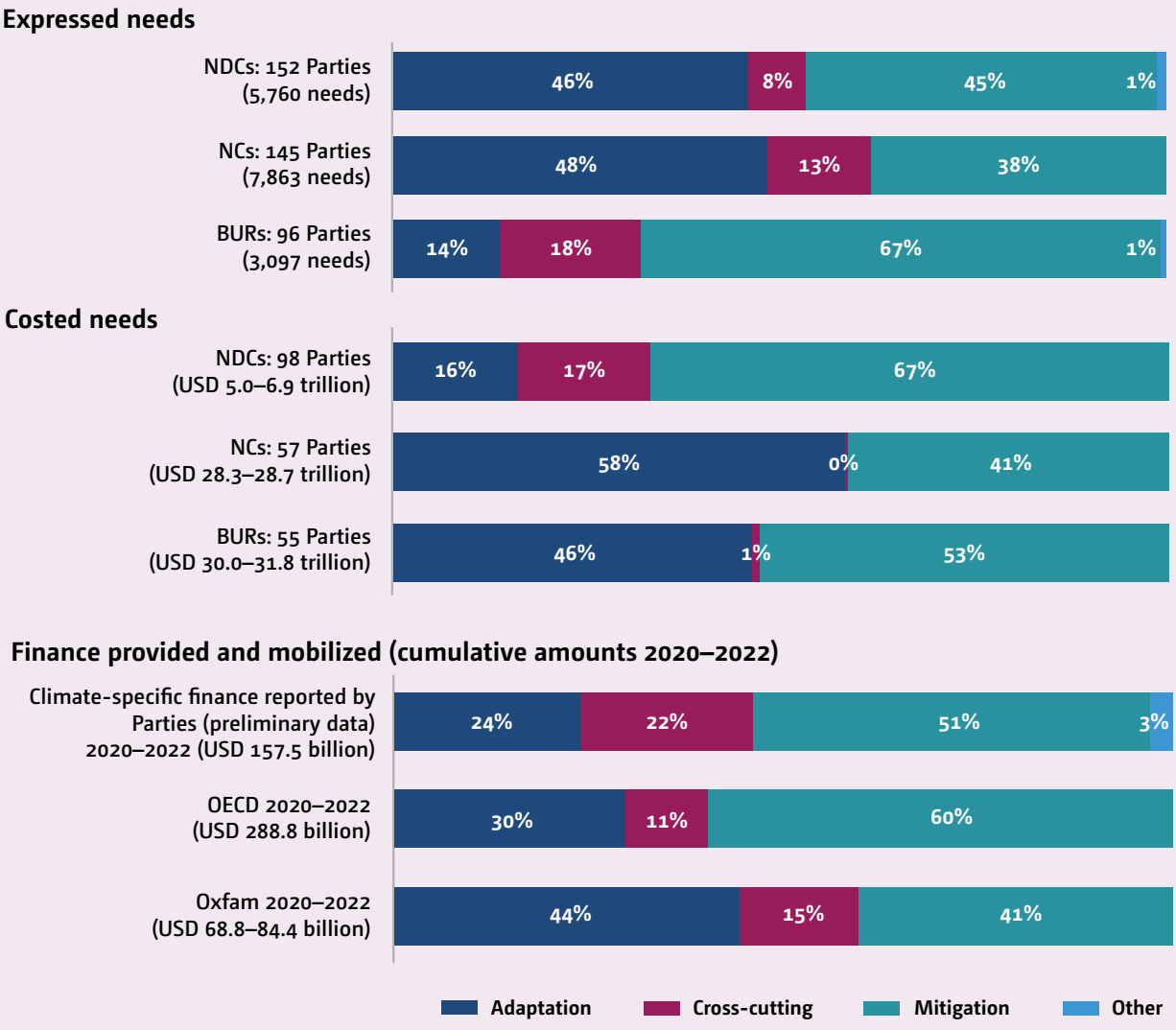
Geographical distribution

32. Data on regional distribution of climate finance in relation to the USD 100 billion goal are not broadly available, hindering an analysis of whether finance is flowing in a manner that addresses needs expressed by region.[23] According to the sixth BA, in 2021–2022 most of the finance from multilateral climate funds, amounting to USD 3.7 billion per year on average, primarily went to Latin American and the Caribbean (31 per cent), Africa (25 per cent) and Asia (22 per cent). MDB finance amounting to USD 49 billion per year on average was directed to African and Asia (33 and 32 per cent respectively), while most private finance mobilized amounting to USD 18.2 billion per year on average went to Latin America and the Caribbean (35 per cent), Asia (32 per cent) and Africa (20 per cent).

23 The preliminary nature of the data gathered from Parties on climate finance in 2021–2022 to support the preparation of the sixth BA does not allow for an analysis by region. The OECD report series no longer includes a regional breakdown but instead an analysis by income group, and the Oxfam updates do not include a regional breakdown

Figure 2

Needs identified by developing countries and finance provided and mobilized by developed countries, by thematic area



Sources: Data from SCF. 2024. Second report on the determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement. Bonn: UNFCCC. Available at https://unfccc.int/topics/climate-finance/workstreams/determination-of-the-needs-of-developing-country-parties/first-report-on-the-determination-of-the-needs-of-developing-country-parties-related-to-implementing; SCF. 2024. Sixth Biennial Assessment and Overview of Climate Finance Flows. Bonn: UNFCCC. Available at https://unfccc.int/topics/climate-finance/resources/biennial-assessment-and-overview-of-climate-finance-flows; OECD. 2024. Climate Finance Provided and Mobilised by Developed Countries in 2013–2022. OECD. Available at https://www.oecd.org/en/publications/2024/05/climate-finance-provided-and-mobilised-by-developed-countries-in-2013-2022_8031029a.html; and Oxfam. 2024. Climate Finance Short-Changed, 2024 update. Oxfam. Available at https://oxfam.app.box.com/s/q32guouexhj6proorwm8f14sv6nvan77.

Notes: The time frames for expressed and costed needs vary in different report types. For example, for costed needs identified in NDCs the time frames start from 2015, 2021 or 2022 up to 2030; in NCs the time frames start from 2021 or 2023 up to 2060; and in BURs the time frames start from 2021 or 2023 up to 2060. For costed needs and Oxfam data, the midpoint of ranges was used to calculate thematic shares.

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33. For the LDCs and SIDS, the OECD report shows increasing shares of climate finance provided and mobilized, from 17 and 2 per cent respectively on average over 2016–2022 to 18 and 3 per cent respectively in 2022 alone, amounting to USD 21.2 billion for the LDCs and 3.2 billion for SIDS. In terms of needs, 45 LDCs accounted for 45 per cent of the identified needs and 16–21 per cent of the costed needs expressed in NDCs, demonstrating that while finance flows are proportionate to costed needs, less finance is flowing proportionately to the LDCs than their identified needs. For SIDS, 37 SIDS accounted for 25 per cent of the identified needs and 1 per cent of the costed needs expressed in NDCs, demonstrating that more finance is flowing proportionately to SIDS in terms of costed needs but less in terms of identified needs.

C. The context of meaningful mitigation actions and transparency on implementation

34. The goal is set out in the context of meaningful mitigation action and transparency on implementation. Therefore, assessing trends in mitigation actions and transparency on implementation is relevant to assessing progress related to the context dimension of the goal. However, a direct causal link between finance flows that address the needs of developing countries and any improvements in mitigation actions and/or transparency on implementation, and vice versa, is difficult to establish, and the challenge is compounded by the fact that data and published reports that could support such a link are lacking.

Trends related to meaningful mitigation action

35. Observed trends related to mitigation actions and ambition illustrate some progress:

a. Between 2010 and 2019, while emissions continued to increase, the rate of growth slowed from 2.2 per cent per year in 2000–2009 to 1.5 per cent per year. The coronavirus disease 2019 pandemic led to an unprecedented 3.6 per cent drop in GHG emissions in 2020 compared with the 2019 level. However, as restrictions were gradually removed, emissions increased again at a rate of 4.2 per cent in 2021 to reach just above the 2019 level in that year;

b. Forty-six non-Annex I Parties had communicated NAMAs in 2010, while as at 31 July 2024, 151 (98 per cent) had submitted an NDC, with 118 Parties (78 per cent) having submitted an updated NDC. Regarding Annex I Parties, in 2010 all had submitted a quantified emission limitation or reduction commitment for 2020; these were followed by the submission of INDCs in 2015–2016 and NDCs thereafter. As at 31 July 2024, 95 per cent of Annex I Parties had submitted an updated NDC;

c. The aggregate effect of mitigation actions in NDCs submitted by all Parties that have submitted NDCs as at 30 September 2023 is expected to result in global GHG emissions (excluding land use, land-use change and forestry) of 51.6–54.8 Gt CO2 eq in 2025, representing a reduction in emissions of 4.6–5.8 per cent compared with the 2016 level, as determined from the mitigation actions included in the INDCs from 2016. By 2030, GHG emissions are estimated to be 48.3–54.8 Gt CO2 eq, a reduction of 11.4–12.0 per cent compared with the 2016 level, as determined from INDCs, indicating a return to almost the 2010 level. However, according to the IPCC, global emissions would decline by about 43 per cent in 2030 from the 2019 level to be consistent with pathways with no or limited overshoot of the 1.5 °C goal, and by 21 per cent to limit warming to below 2 °C.[24]

36. Investigating whether more meaningful mitigation action has played a role in attracting and mobilizing climate finance requires further work. It is well established in the literature that clear, consistent and coherent policy signals and enabling environments are critical to facilitating finance flows. Through their accreditation of entities and establishment of national climate funds, many developing countries have put in place the infrastructure necessary to receive climate finance through multilateral climate funds and other sources. However, it is not yet possible to draw conclusions about the extent to which mitigation actions may have influenced the level of climate finance mobilized under the goal.

Trends related to transparency on implementation

37. Many sources of information based on Party submissions point to the importance of transparency

24 Table SPM.1 in IPCC. 2023. Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC. pp.1–34. Available at https://www.ipcc.ch/report/sixth-assessment-report-cycle/.

on implementation with regard to action and support to enhance mutual trust among and accountability of Parties. Trends show significant progress since the USD 100 billion goal was established, although some transparency gaps remain (figure 3). Almost all (43) Annex I Parties had submitted a BR5 as at 31 July 2024, with information on climate actions as well as support provided. The submission of BURs with information on climate actions and needs, as well as climate support received, has been steadily increasing, with 68 per cent of non-Annex I Parties (104) having submitted at least one BUR, 29 per cent a second BUR (45 Parties), 18 per cent a third BUR (28 Parties), 8 per cent a fourth BUR (13 Parties) and 3 per cent a fifth BUR (4 Parties) as at 31 July 2024. Of the 50 non-Annex I Parties (32 per cent) that had not yet submitted a BUR as at that date, 28 were LDCs or SIDS. As at the end of 2023, all non-Annex I Parties had submitted at least one NC, 94 per cent an NC2 (146 Parties), 66 per cent an NC3 (103 Parties) and 21 per cent an NC4 (32 Parties). Almost all Annex I Parties (43 Parties) had submitted an NC8 as at 31 July 2024.

38. The lack of synthesis reports on BURs and NCs limits the possibility of drawing conclusions with regard to improved coverage of and quality of information in reporting. Many Parties have established the necessary institutional arrangements, including legislative and policy frameworks, for the planning, implementation and MRV of mitigation actions. However, some developing country Parties still face challenges in setting up institutional arrangements or domestic MRV systems partially owing to a lack of financial resources and human capacity. For NDCs, improvements in methodological approaches and data coverage have been noted over time.

39. More information to support the assessment of progress in achieving transparency on implementation is expected to be available once reporting under the ETF is under way by the end of 2024. This information will include climate finance provided and mobilized and climate finance needed and received, including the use, impact and results of climate finance received.

D. Challenges and lessons learned

40. Key challenges in and lessons learned from implementing the goal reflect the interlinkages across the three dimensions, particularly in relation to mobilizing finance flows to address needs as well as in relation to the context of meaningful mitigation actions and transparency on implementation.

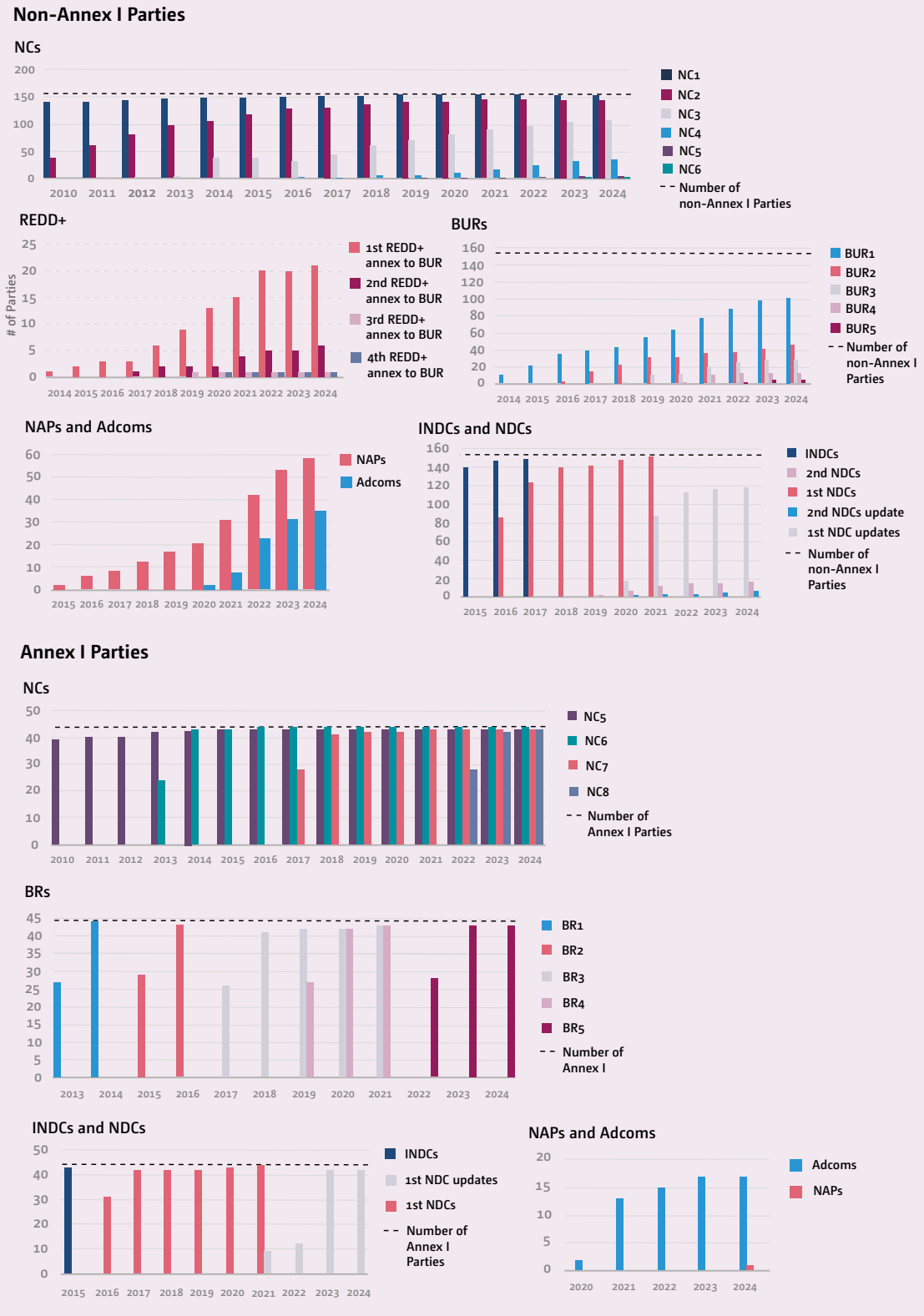
41. With regard to **efforts to mobilize USD 100 billion per year**, the positive trends in the amount of climate finance provided and mobilized since 2020 show that measures taken to increase public finance and private finance mobilized have been effective. Furthermore, the use of special drawing rights directed to fund the International Monetary Fund's Resilience and Sustainability Trust illustrates an innovative way of scaling up climate finance. Further potential innovative sources include green sovereign bonds and debt swaps that could increasingly be used to further scale up the mobilization of climate finance to developing countries from developed countries.

42. While progress has been made in mobilizing climate finance for developing countries, challenges remain, particularly in relation to scaling up climate finance from MDBs and mobilizing private finance. Challenges in mobilizing private capital by developed countries include the broader investment environment conditions, small size of activities, and the high real and perceived risks in developing countries, as well as lack of business models within key multilateral providers to focus on this area. Key lessons identified for climate finance providers include supporting country-level de-risking approaches, developing further secondary market assets to aggregate smaller assets across market and country risk profiles and incentivizing MDBs and other institutions to maximize mobilization potential through dedicated target-setting, further support for risk-sharing mechanisms and local currency lending.

43. Finally, the lack of a multilaterally agreed accounting methodology towards the goal contributes to a lack of a common understanding of the progress towards its achievement.

Figure 3

Trends in available information on the transparency of climate action, needs and support
(Cumulative number of Parties submitting national reports)



Note: The figure shows the cumulative number of Parties submitting national reports under the Convention and the Paris Agreement as at 31 July 2024.

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44. With regard to **addressing needs,** there are opportunities to continue to scale up finance for adaptation, including through the design and implementation of adaptation activities which have mitigation co-benefits. The share of adaptation needs identified in BURs, NCs and NDCs was higher than that reported in the first report on progress towards achieving the goal, while adaptation finance was lower in 2021 before rebounding in 2022 and returning to an upward trend. There was significant growth in cross-cutting finance, illustrating the challenge in allocating specific amounts to adaptation and mitigation respectively. Measures for scaling up adaptation finance include supporting developing countries' efforts to strengthen their capacities, policies and enabling environment, strengthening development practices and systems to ensure efficient delivery, deploying public and blended finance instruments strategically to mobilize private finance for adaptation and tapping into alternative financing sources and mobilization instruments for adaptation.

45. Information on the needs of developing countries also points to the importance of grant and concessional finance. While grant finance has grown strongly since 2020 according to all sources of information, the prevalence of lending in aggregate numbers in the context of high debt burdens and fiscal constraints in developing counties, as already noted in the first report on progress towards achieving the goal, underscores the importance of overcoming challenges to increasing concessional finance flows. According to the IPCC[25], a variety of different financing instruments are necessary for supporting mitigation and adaptation projects depending on different stage of project development, different stage of the technology innovation chain and different levels of maturity of the markets.

46. A significant challenge, as reported in the first report on progress towards achieving the goal, is the knowledge gaps in understanding progress across all dimensions of the goal, in particular whether finance mobilized addresses needs and to what extent meaningful mitigation actions are linked to financing. a full picture may be derived if information on needs would include indicators on the type of activities required, the level of technology deployment, the level of capacity-building needed and other implementation requirements, as well as costed information, while a data on finance provided and mobilized would mirror such information and cover the same time frame. With expanded reporting on the finance needed and received by developing countries expected under the ETF, this gap may be partially addressed.

47. In addition, there remains the relatively limited capacity of developing countries to quantify costs and build project pipelines that attract public and private climate finance and enable it to be targeted to needs. The most prominent challenges include institutional coordination at both the national and local level as well as across line ministries in comprehensively identifying, costing and articulating project-specific needs comprehensively; high staff turnover, leading to loss of knowledge and expertise in needs identification; and costing adaptation needs due to methodological limitations and their long-term nature compared with the short timeline of projects.[26] Many Parties are developing NDC investment plans and strategies to accompany the NDC update process.

48. Finally, access to capital is identified as a significant challenge by developing countries in order to address their needs. This can relate, inter alia, to the complexity of requirements for accessing international climate finance through multilateral climate funds, which is often a resource- and time-consuming process stretching beyond the length of election cycles of national governments. The IPCC noted that debt-constrained developing countries have lower access to international capital markets owing to higher real and perceived risks and lower credit ratings than developed countries, a situation exacerbated by the coronavirus disease 2019 pandemic.[27]

49. With regard to **the context of meaningful mitigation actions and transparency on implementation**, there is limited to no information to link progress made in the provision and mobilization of finance with progress made in implementing mitigation actions and raising mitigation ambition as seen in the iterative updates of NDCs. A key challenge remains understanding whether scaled-up finance flows drive further mitigation ambition, plans and actions,

25 IPCC. 2022. Summary for Policymakers. In: P Shukla, J Skea, and R Slade (eds.). *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.* Cambridge and New York: Cambridge University Press. Available at https://www.ipcc.ch/report/ar6/wg3/.

26 SCF. 2021. *First report on the determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement. Bonn: UNFCCC.* Available at https://unfccc.int/topics/climate-finance/workstreams/determination-of-the-needs-of-developing-country-parties/first-report-on-the-determination-of-the-needs-of-developing-country-parties-related-to-implementing.

27 IPCC. 2022. Summary for Policymakers. In: P Shukla, J Skea, and R Slade (eds.). *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.* Cambridge and New York: Cambridge University Press. Available at https://www.ipcc.ch/report/ar6/wg3/.

or whether increased mitigation ambition, plans and actions have led to an increase in climate finance. Where platforms have been established that could support analysis of the linkages between implementation of mitigation actions and provision of financial support, there has been a lack of reporting, for example in the case of the NAMA registry. The need to identify dedicated reporting processes that cover the full scope of the goal is a key lesson learned in this regard. More information to be reported under the ETF may facilitate exploring such linkages in the future.

III. Recommendations

50. The SCF invites COP 29 to consider the following recommendations, which are based on the key findings of the second report on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation:

a. Welcomes the increase in climate finance provided and mobilized between 2020 and 2022 according to all sources of information in this report, while noting that one source (OECD) found that the goal was met in 2022, suggesting that measures taken to increase public finance and the mobilization of private finance have been more effective than in previous periods;

b. Urges developed country Parties to continue to follow on this positive trend and to provide and mobilize climate finance to support developing countries through to 2025;

c. Acknowledges that there have been illustrative examples of innovative instruments, including the use of special drawing rights directed to fund the International Monetary Fund's Resilience and Sustainability Trust, sovereign green bonds and debt swaps, and encourages that they could increasingly be used to further scale up the mobilization of climate finance;

d. Emphasizes the importance of mobilizing private climate finance to address the needs of developing country Parties and encourages its increased mobilization, including through the use of blended finance and innovative instruments, as appropriate;

e. Recognizes the importance of climate finance continuing to respond to the needs and priorities of developing countries, including by increasing adaptation finance, particularly for the LDCs and SIDS;

f. Underlines the importance of progress in enhancing access to climate finance and encourages Parties to consider ways to continue to facilitate progress on this issue;

g. Encourages data providers and aggregators to provide geographically disaggregated data on climate finance provided, mobilized, needed and received, as well as information on the gender-responsiveness of climate finance, to increase the overall transparency and improve the assessment of progress in achieving the USD 100 billion goal;

h. Affirms the importance of concessional finance instruments and of taking into account the debt sustainability of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the LDCs and SIDS, particularly as it relates to adaptation.

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LIST OF ABBREVIATIONS

AC	Adaptation Committee
ADB	Asian Development Bank
AFOLU	agriculture, forestry and other land use
Annex I Party	Party included in Annex I to the Convention
Annex II Party	Party included in Annex II to the Convention
APS	announced pledges scenario of the International Energy Agency
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BA	biennial assessment and overview of climate finance flows
BR	biennial report
BTR	biennial transparency report
BUR	biennial update report
CCUS	carbon capture and utilization/storage
CFU	Climate Funds Update
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CO_2	carbon dioxide
CO_2 eq	carbon dioxide equivalent
COP	Conference of the Parties
CPI	Climate Policy Initiative
CTF	common tabular format
DAC	Development Assistance Committee
DFI	development finance institution (including bilateral, regional and national development banks)
ETF	enhanced transparency framework (under the Paris Agreement)
EU	European Union
EV	electric vehicle
GCF	Green Climate Fund
GDP	gross domestic product
GEF	Global Environment Facility
GHG	greenhouse gas
ICA	international consultation and analysis
IDA	International Development Association
IEA	International Energy Agency
IHLEG	Independent High Level Expert Group on Climate Finance
IMF	International Monetary Fund
INDC	intended nationally determined contribution
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
LDC	least developed country
LEDS	low-emission development strategy
LT-LEDS	long-term low-emission development strategy(ies)
LULUCF	land use, land-use change and forestry
MDB	multilateral development bank
MRV	measurement, reporting and verification
NA	not applicable
NAMA	nationally appropriate mitigation action
NAP	national adaptation plan
NAPA	national adaptation programme of action
NC	national communication
NDC	nationally determined contribution
NDR	report on the determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement
non-Annex I Party	Party not included in Annex I to the Convention
NZE	net zero financing roadmaps of the Glasgow Financial Alliance for Net Zero
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PES	planned energy scenario of the International Renewable Energy Agency
REDD+	reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks (decision 1/CP.16, para.70)
SCF	Standing Committee on Finance
SDR	special drawing right
SIDS	small island developing State(s)
STEPS	stated policies scenario of the International Energy Agency
TAP	technology action plan
TNA	technology needs assessment
UNEP	United Nations Environment Programme

1

Introduction

1.1 Background and objectives

1. In 2010, COP 16 recognized that "developed country Parties commit, in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries."[1] In 2022, the SCF produced the first report on progress towards achieving this goal in response to a mandate from COP 26.[2]

2. COP 27 noted the technical report of the SCF and the quantitative and qualitative information presented therein and requested the SCF to prepare biennial reports, including a summary of key findings, on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation, taking into account other relevant reports, for consideration at COP 29, COP 31 and COP 33 and noted that the final report will be considered in the context of matters relating to the SCF.[3]

3. The first report on progress provides a comprehensive overview of provisions of the Convention and the Paris Agreement in relation to climate finance in general, as well as relevant decisions on the goal since 2016 (UNFCCC SCF, 2022). Key decisions that elaborated on the nature of the goal and progress on its delivery are reiterated below, as well as new decisions adopted since the first report on progress. Relevant decisions that elaborated on the nature of the goal include:

- Biennial reporting guidelines for developed country Parties adopted at COP 17 that recognized that the goal includes private financial resources;[4]
- The urging of developed country Parties at COP 18 to scale up climate finance from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources, to the joint goal of mobilizing USD 100 billion per year by 2020;[5]
- The decision at COP 21 that, in accordance with Article 9, paragraph 3, of the Paris Agreement, developed countries intend to continue their existing collective mobilization goal through 2025 in the context of meaningful mitigation actions and transparency on implementation; prior to 2025 the CMA shall set a new collective quantified goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries.[6]

4. In recent years, the COP has also noted progress on the delivery of the goal. In particular:

- COP 26 noted with serious concern the gap in relation to the fulfilment of the goal of developed country Parties to mobilize jointly USD 100 billion per year by 2020, including due to challenges in mobilizing finance from private sources;[7]
- COP 27 noted with deep regret that the goal of developed country Parties to mobilize jointly USD 100 billion per year by 2020 in the context of meaningful mitigation actions and transparency on implementation had not been met, including due to challenges in mobilizing finance from private sources, and further noted the different estimates of progress towards achieving the goal of mobilizing jointly USD 100 billion per year from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources, and recognized the lack of a common definition and accounting methodology in this regard;[8]
- COP 28 noted with deep regret that the goal was not met in 2021, noted the efforts by developed country Parties to improve transparency on its delivery[9] and looked forward to further information on positive progress on the delivery made in 2022, recognized the lack of a common definition and accounting methodology in this regard, and urged developed country Parties to fully deliver on the goal urgently and through 2025, noting the significant role of public funds, and called on developed country Parties to further enhance the coordination of their efforts to deliver the goal.[10]

1 Decision 1/CP.16, para. 98.
2 Decision 4/CP.26, para. 19. The first report is available at https://unfccc.int/process-and-meetings/bodies/constituted-bodies/standing-committee-on-finance-scf/progress-report.
3 Decision 13/CP.27, paras. 13 and 15.
4 Decision 2/CP.17, annex I, para. 19.
5 Decision 1/CP.18, para. 66.
6 Decision 1/CP.21, para. 53.
7 Decision 4/CP.26, para. 4
8 Decision 13/CP.27, paras. 3 and 14.
9 See https://www.auswaertiges-amt.de/blob/2631906/4eee299dac91ba9649638cbcfae754cb/231116- deu-can-bnrief-data.pdf
10 Decision 4/CP.28, paras. 3–6.

5. Furthermore, in the outcome of the first global stocktake, the CMA welcomed recent progress made by developed countries in the provision and mobilization of climate finance, noted the increase in climate finance from developed countries in 2021 to USD 89.6 billion and the likelihood of meeting the goal in 2022, and looked forward to further information on the positive progress.[11]

6. In responding to the mandate from COP 27, the objective of this report is therefore to provide an update on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation, including a summary of key findings.

1.2 Scope

7. This report presents information from a wide variety of sources relevant to the three dimensions of the goal, namely:

- The mobilization, jointly, of USD 100 billion per year by 2020 through to 2025;
- Addressing the needs of developing countries;
- The context of meaningful mitigation action and transparency on implementation.

8. This report provides quantitative and qualitative information on each of the dimensions and analyses the interlinkages between them as a whole in order to understand overall progress towards achieving the goal.

9. In terms of the scope of the first dimension, on finance flows, this report uses the most recently available backward-looking and forward-looking information and data for 2010 to 2025. In terms of the scope of the second dimension, on the needs of developing countries, the available information is both backward-looking and forward-looking in nature. This report uses the most recently available information on the needs of developing countries, which has varying time frames, such as needs up to 2025 or 2030. In terms of the scope of the third dimension, on the context of meaningful mitigation actions and transparency on implementation, this report considers the most recently available up-to-date backward-looking information, such as on trends in emissions, climate action and reporting transparency, as well as forward-looking information on mitigation ambition up to 2025, 2030 and beyond.

1.3 Challenges and limitations

10. As COP 27 and COP 28 noted, there is no multilaterally agreed accounting methodology in relation to tracking progress towards the goal (see para. 4 above). The decision language on the goal does not provide detailed guidance on how to measure and track progress towards achieving it, including accounting approaches and how to contextualize the mobilization of finance flows in relation to addressing the needs of developing countries or measuring meaningful mitigation action and transparency on implementation. Furthermore, the decision language noted in paragraph 1 above does not clarify whether nominal or real values in 2009 currency or 2020 currency are relevant to tracking progress towards the goal. This report bases its assessment of progress on Parties' reporting under the Convention and the Paris Agreement and other relevant reports and sources of information and all data are reported in current United Sates dollars.

11. The Convention and Paris Agreement provide a framework for a bottom-up approach whereby countries can take a self-determined methodological approach to tracking, measuring and reporting climate finance provided, mobilized, needed and received, and to defining climate finance. This results in challenges in aggregating data on climate finance to inform an assessment of progress towards the collective goal. Challenges related to aggregating information on this basis include the use of variable definitions of 'mobilization', whether climate finance committed and/or disbursed is counted towards progress, the use of different timeframes (calendar year vs fiscal year), the use of different currencies and exchange rates, differing approaches to calculating climate-specificity and others.

12. Moreover, in assessing progress on mobilizing finance, in addressing needs and in the context of meaningful mitigation actions and transparency on implementation, this report covers three different, albeit closely related, dimensions of the goal that have been taken forward in different ways, have developed at different speeds over the period since the goal was set and have different evidence bases. This prevents this report from making quantitative assessments about the nature and extent of causal linkages between different

11 Decision 1/CMA.5, para. 76.

components (e.g. increased finance, addressed needs, and enhanced action or increased transparency), although it provides a qualitative picture of how these components have evolved over time.

13. In addition, a number of challenges and limitations were encountered in the preparation of this report related to data availability and consistency. Gaps in the availability of data related to support received, whether and how finance is addressing needs, and the non-standardized nature of data on projected levels of climate finance pose challenges. Data availability on the coverage of the needs of developing countries on an annual basis is another significant challenge. As most reports present needs over a long time frame (mostly up until 2030 or 2050) instead of on an annual basis, challenges arise in presenting needs for the time frame 2020–2025, which would be the ideal time frame for assessing how expressed needs are addressed by the finance mobilized.

1.4 Approach used in preparing the report

14. Across the three dimensions of the goal, various sources of information, including Parties' national reports and submissions under the Convention and the Paris Agreement, technical reports by the secretariat and reports from stakeholders with specific relevance to the goal, were used in preparing this report. Where possible, disaggregated information on themes, instruments, sectors, the geographical distribution of finance, including for the LDCs and SIDS, as well as information on impacts and outcomes of climate finance, are provided in this report.

15. In addition to collecting available information and data from various reports and conducting a literature review, a call for inputs was issued by the SCF and five submissions were received.[12]

16. Table 1.1 provides an overview of the sources of information outlined in chapters 2 and 3 below. For each dimension of the goal, the sources reflect the most relevant information relating to reporting under the Convention and the Paris Agreement, as well as other relevant reports outside it.

17. For the first dimension, the BA is a key source of information for this report. The BA consists of a meta-analysis of data on climate finance flows globally and from developed countries to developing countries from various sources of information. The primary sources of information (e.g. BRs, BURs etc.) are directly reflected in this report. Other relevant reports and studies with a stated objective of tracking or assessing progress towards achieving the goal of jointly mobilizing USD 100 billion per year were used. For sources of information on climate finance without explicit references to the goal, such as data from the joint MDB reports on climate finance, the CPI Global Landscape of Climate Finance, the CFU, the OECD DAC climate-related development finance database, and reports from the multilateral climate funds, data sources were captured through the meta-data analysis of the BA.

18. For the second dimension, the second NDR is the primary source of information for this report. Relevant updates to global or developing country investment need estimates published since the first report on progress are also included.

19. For the third dimension, sources of information on mitigation action and transparency on implementation include Parties' reports and submissions since the goal was recognized, in addition to other reports that provide an overview of mitigation actions, such as those of IEA, the IPCC and UNEP.

20. Challenges and lessons learned outlined in Chapter 4 derive from the data and information presented in Chapter 3 as well as complementary sources of information such as the IPCC (2022), UNCTAD (2023), OECD (2023a, 2023b) and others.

1.5 Structure of the report

21. This report is structured following the general outline agreed by the SCF at its 31st meeting.[13]

- Chapter 2 below provides an overview of updates to the underlying approaches and methodologies used in sources of information for each of the three dimensions of the goal;
- Chapter 3 below provides quantitative and qualitative information, including trends, from the sources of information for each of the three

12 Submissions to the call for evidence are available at https://unfccc.int/topics/climate-finance/resources/standing-committee-on-finance-info-repository#Report-on-progress-towards-achieving-the-goal-of-mobilizing-jointly-USD-100-billion-per-year-by-2020-through-to-2025

13 FCCC/CP/2023/2–FCCC/PA/CMA/2023/8, annex V.

dimensions of the goal. The chapter focuses on the information relevant to assessing progress in each dimension and their potential interlinkages; for example, whether and how the finance mobilized has addressed needs and if the finance mobilized has impacted the overall context of meaningful mitigation action and transparency on implementation;

- Chapter 4 below provides an overview of progress achieved on the goal, including challenges, lessons learned.

Table 1.1

Sources of information used in this report for each dimension of the goal

	Dimension 1	Dimension 2	Dimension 3
	Mobilizing jointly USD 100 billion per year by 2020 and through to 2025	**Addressing the needs of developing countries**	**The context of meaningful mitigation action and transparency on implementation**
Sources of information under the Convention and the Paris Agreement	Sixth BA, including preliminary information on climate finance in 2021–2022 and latest information from BURs of non-Annex I Parties	SCF second needs determination report, including the latest information on needs from NDCs, adaptation communications, NCs, BURs and NAPs Information from the technical assessment of the global stocktake	NDC synthesis report (2023) Information from the technical assessment of the global stocktake NAMA registry Sixth BA, including information from BRs and BURs REDD+ Information Hub
	Information related to Article 9, paragraph 5, of the Paris Agreement, including biennial communications by developed country Parties on indicative quantitative and qualitative information, in-session workshop reports and high-level ministerial dialogue summaries		
Other relevant reports	OECD report series on climate finance and the USD 100 billion goal (2024) Oxfam, Climate Finance Short-changed, 2024 Update. Estimating the Real Value of the $100 Billion Commitment for 2021–22 (2024) Climate Finance Delivery Plan Progress Report (2022) Climate Finance Delivery Plan (2021) 2016 Roadmap to USD 100 Billion	Contribution of Working Groups II and III to the AR6 (2022) IEA World Energy Investment (2023) Independent High-level Expert Group on Climate Finance (2023) IRENA World Energy Transitions (2023) UNEP Adaptation Gap Report (2023)	AR6 synthesis report (2023) and contribution of Working Groups II and III to the AR6 (2022) UNEP Emissions Gap Report (2010–2023) UNEP Global Status Report for Buildings and Construction (2023) IEA World Energy Investment (2024) NAMA Facility Clean Cooking Alliance (2023) GCF project portfolio dashboard (2024) GEF report to the COP (2023) World Bank State of Carbon Pricing (2023) World Bank International Development Association brochure (2023) ADB (2023)

2

Approaches used in sources of information

22. This chapter provides an update on approaches used in the sources of information outlined in detail in the first report on progress and describes new sources of information considered in this report. Annex B provides a detailed description of each source of information.

2.1 Approaches used in sources of information on progress towards achieving the goal of mobilizing jointly USD 100 billion per year

23. This section provides an overview of updates since the first report on progress to approaches and methods used in different sources of information on progress towards achieving the goal of mobilizing jointly USD 100 billion per year. Sources of information include the sixth BA, the BR5s, the latest BURs and other relevant reports and studies that have an explicit objective of, or make reference to, assessing progress towards achieving the USD 100 billion per year goal. Quantitative and qualitative information and trends from the corresponding sources are outlined in chapter 3.1 below. This section covers backward-looking, and, subsequently, forward-looking sources of information.

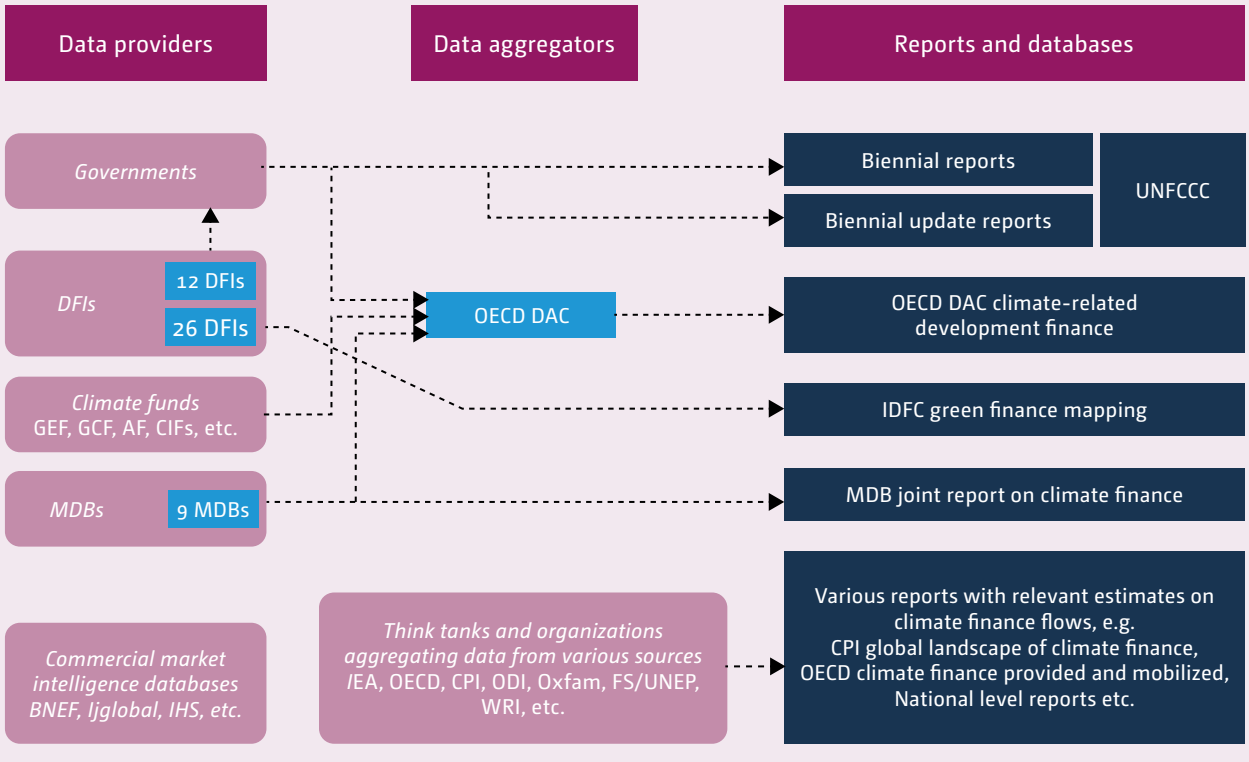
2.1.1 Backward-looking sources of information

Biennial assessment and overview of climate finance flows by the Standing Committee on Finance

24. A key source of information on climate finance flows is the BA(UNFCCC SCF, 2024b). The BA is a meta-analysis of data from a wide range of sources of information, including but not limited to BRs and BURs, supplemented by other data from the OECD, international financial institutions, United Nations organizations, academia, non-governmental organizations, think tanks and the private sector (see figure 2.1). Since the 2014 BA, the BA has provided insights into climate finance flows from developed countries to developing countries from both public and private sources of finance, including on scale, composition and purpose. In considering the range of sources identified, the BA does not have its own approach to aggregating data points on climate finance from developed countries to developing countries but does provide a useful starting point in considering which data may be most relevant.

Figure 2.1

Climate finance data providers, aggregators and reporters referenced in the BA



Note: Dashed arrows indicate formal reporting processes, for example through the UNFCCC, OECD DAC or joint reporting by MDBs and IDFC. Some DFIs report data to their national governments to be included in reporting to the UNFCCC or OECD DAC.

25. For bilateral climate finance flows, the BA highlights aggregated data on climate finance support provided through bilateral, regional and other channels and does not include support provided through multilateral channels in order to avoid overlaps with other segments.

26. For climate finance flows through multilateral climate funds, including the operating entities of the Financial Mechanism, the BA highlights outflows as they represent finance flows to projects in developing countries within the reporting period. In addition, financial commitments to projects are highlighted owing to the lack of data completeness on disbursements across multilateral climate funds.

27. The BA reflects the range of potential methodologies and assumptions used in attributing MDB climate finance from developed countries to developing countries. Two different approaches are highlighted: the first is based on the ownership shares held by developed countries in each MDB (CPI, 2019a); the second is based on replenishments of concessional finance and grant windows in different funding rounds, and, for institutions raising additional funds from the capital markets, further considerations of paid-in and on-call capital, the latter being the amounts that shareholders have committed to provide in exceptional circumstances (OECD, 2020a) (see para. 53 below and annex A for quantified data for the two approaches).

28. The BA gathers data on private climate finance from developed countries to developing countries or climate finance mobilized for projects in developing countries. These data include estimates reported jointly by MDBs in measuring direct and indirect mobilization of their climate finance;[1] estimates on private finance mobilized by public interventions and attributed to developed countries through both bilateral and multilateral channels, as reported throughout the OECD report series on climate finance and the USD 100 billion goal (see para. 54 below); and data on foreign direct investment in climate mitigation or adaptation projects, as reported by CPI.

29. For preparing the sixth BA, the SCF invited Parties to provide preliminary information on climate finance in 2021 and 2022. Fifteen Parties responded to the invitation. Publicly available information from a further eight Parties complemented the preliminary estimates reported in the sixth BA, which is also reflected in this report (see chapter 3.1.1 below). As Parties are due to submit their first BTRs under the ETF by the end of 2024, some Parties reported preliminary information in the new reporting formats while other Parties used the existing reporting formats. This affects the trend analysis as the new reporting formats include an additional table on finance mobilized by public interventions in addition to the reporting tables on bilateral and multilateral channels. While the reporting guidelines under the Convention recognized that Annex II Parties should report, to the extent possible, on private finance flows leveraged by bilateral climate finance in their BRs, the introduction of this information in a separate category in the reporting formats for the BTRs introduces a data break for the trend analysis between the preliminary data and the previous BRs.

Reporting under the Convention and the Paris Agreement

30. Under the Convention, 24 Annex II Parties are required to provide information on financial support provided to non-Annex I Parties. The BRs capture this information, mainly in CTF tables 7, 7(a) and 7(b). As at April 2024, all 24 Annex II Parties had submitted BRs and CTF tables on financial support provided to non-Annex I Parties through bilateral, regional and other channels (CTF table 7(b)) and multilateral channels (CTF table 7(a)), and had provided a summary table (CTF table 7) for 2019 and 2020.

31. The other Annex I Parties are required to submit NCs and BRs but are not required to provide information in CTF tables 7, 7(a) and 7(b) on the financial resources provided to non-Annex I Parties. However, many do voluntarily provide such information and 11 did so in their BR5s.

32. Parties' reporting in the CTFs is accompanied by information on the underlying assumptions and methodologies used in the reporting process, either in a documentation box within the CTF or in the text of the BR itself. The sixth BA provides an overview of the methodological approaches used by Parties in reporting on climate finance provided and mobilized in the BR5s (section 1.4.2 of the sixth BA). While Parties adhere to the reporting guidelines, some issues affect aggregation of the data with regard to bilateral, regional and other

1) Private direct mobilization is defined as financing from a private entity on commercial terms due to the active and direct involvement of an MDB leading to commitment. Evidence of active and direct involvement includes mandate letters, fees linked to financial commitment or other valid or auditable evidence of an MDB's active and direct role leading to commitments by private financiers. Private direct mobilization does not include sponsor financing. Private indirect mobilization is defined as financing from private entities supplied in connection with a specific activity for which an MDB is providing financing, where no MDB is playing an active or direct role that leads to the commitment of the private entity's finance. Private indirect mobilization includes sponsor financing if the sponsor qualifies as a private entity.

channels. These issues include:

- The use of calendar or fiscal years. At least one Party reported information based on fiscal year 1 October to 30 September, while four Parties used calendar years (the other Parties did not provide this information);
- Commitments and disbursements. Twelve Parties reported climate finance disbursements (financial transfers for a given activity in the calendar or fiscal year) through bilateral, regional and other channels, while six Parties reported commitments and five Parties reported both, depending on the project or source of funding;
- Climate-specific financial support. Parties used different ways to identify financial amounts as climate-specific amounts in their reporting. Twenty Parties applied coefficients to their reporting, using the OECD DAC system, of between 85–100 per cent for projects with a marker for climate mitigation or adaptation as a principal objective and 30–50 per cent for projects with a marker for climate mitigation or adaptation as a significant objective. Four Parties applied case-by-case methodologies by project;
- Financial instruments. Nine Parties reported grants only in their support provided through bilateral, regional and other channels and two reported grants and grant-equivalent amounts of loans. The remaining 13 Parties reported a variety of instruments, including concessional and non-concessional loans, equity and other instruments.

33. The reporting by Parties on financial support provided through multilateral channels primarily represents inflows of the contributions they provide to multilateral funds and multilateral institutions rather than the outflows from these funds and institutions to projects in developing countries that are highlighted in the BA and other reports. Amounts are separated between core general contributions and climate-specific support in CTF table 7(b). Fourteen Parties reported the imputed climate share of their general contributions under climate-specific support, based on the proportion of the multilateral fund's or institution's overall outflows to climate mitigation and/or adaptation projects. Under core general contributions, 19 Parties reported general contribution amounts, while one Party reported its imputed climate share and four Parties did not provide any data.

34. As noted in chapter 1.1 above, the reporting guidelines recognize that the goal of mobilizing USD 100 billion per year by 2020 includes private financial resources and that Annex II Parties should report, to the extent possible, on private finance flows leveraged by bilateral climate finance towards mitigation and adaptation activities in non-Annex I Parties, as well as policies and measures that promote the scaling up of private investment in developing country Parties. Fifteen Parties reported private finance mobilized through bilateral, regional and other channels in their CTF tables or included estimates in the text of their BR5s. Two Parties acknowledged the increasing role of the private sector in reporting the private sector finance mobilized towards climate action in developing countries but did not include further information. Some Parties provided a quantitative estimate of the private finance flow for the reporting period. One Party provided a quantitative estimate for one reporting year.

35. Parties are also required to report on what new and additional financial resources they have provided and to specify how they define resources as new and additional. A total of 24 Parties provided this information, 14 in the documentation box and 10 in the text of their BRs. Of the 24 Parties reporting the information, 14 Parties indicated that new and additional resources consisted of newly disbursed or committed finance in the reporting year without carrying over from the previous year, six Parties considered new and additional finance as increases over previous commitments on development finance, while three Parties described their climate finance amounts as flows that exceeded the target of 0.7 per cent of gross national income for overall development finance. One Party identified an environmental fund as the source of climate finance from traditional ODA channels.

36. As at 30 June 2024, 104 non-Annex I Parties had submitted BURs. Among these, 45 Parties had submitted a second BUR, 29 Parties had submitted a third BUR, 14 Parties had submitted a fourth BUR and four Parties had submitted a fifth BUR. Information on finance received has been included by 91 Parties across 155 BURs. Sixty-five per cent of the 20 BURs received in 2023 and 80 per cent of the 10 BURs received in 2024 include information on climate finance.

37. The information included in the BURs varies in the degree of detail. The most common elements included in the BURs associated with climate finance received include the project title, the amount received and the time period, although the time period varies in being expressed in terms of support received to date or when a new project is initiated, often without information being provided on the year of the finance flow. The reported

timeframes varies across the BURs, ranging from annual or biennial to multi-year periods. As for the first report on progress, it is difficult to provide relevant information on the finance received based on the BUR data for the purposes of this report owing to the time lag in the data reported.

38. In 2018, CMA 1 adopted the modalities, procedures and guidelines for the ETF and in 2021, CMA 3 adopted the CTF, as applicable, for use by Parties to submit their first BTRs. In the transition to the ETF from the reporting under the Convention, developed country Parties will report on the financial support they provide and mobilize and developing country Parties report on their finance needs and finance received. Other Parties that provide support should also provide such information and are encouraged to use the same modalities, procedures and guidelines. The first BTRs are due by 31 December 2024 for data on climate finance in 2021 and 2022.

Other relevant reports

39. Since the first report on progress, the OECD has published an update in its series covering progress in the delivery of the USD 100 billion per year goal in 2021 and 2022 using the same methodology as in previous reports (OECD, 2024). The latest report adds the IMF Resilience and Sustainable Trust to the list of multilateral climate funds, from which 77.5 per cent of its climate finance outflows are attributed to developed countries based on historical replenishments.

40. In its reports in 2023 and 2024 analysing climate finance provided over 2019–2020 and 2021–2022 respectively, Oxfam changed its method for calculating the grant-equivalent or climate-specific net assistance finance. In its 2020 report (Oxfam, 2020), Oxfam calculated the grant-element average of bilateral concessional loans from individual countries based on their reporting to the OECD DAC using OECD methods, and applied the country grant-element average to climate-related concessional loans. Such data were available for seven countries, and the average value (49.8 per cent) was applied to loan values from other countries and multilateral institutions. In its 2023 report (Oxfam, 2023), Oxfam developed its own method for calculating the grant element with alternative discount rates based on the long-term cost of borrowing funds for the issuing country at the time the loan was disbursed, with the addition of a risk margin based on an OECD assessment of the recipient country's credit risk. The average grant element was applied to multilateral concessional loans. For its 2024 report (Oxfam, 2024), Oxfam continued with its own method to calculate the grant element with alternative discount rates and applied a grant element calculated for IDA and European Investment Bank loans. The IDA grant element was applied to other MDB concessional loans.41. The report also modified the coefficients to determine the low- and high-end range estimates for climate relevance. Estimates were previously calculated by applying a 30–50 per cent range of coefficients to Rio-marked activities with climate change as a significant objective and 100 per cent to Rio-marked activities with climate change a principal objective. In the 2024 report, the 30–50 per cent coefficients were used and 85–100 per cent coefficients were used for activities marked as a principal objective, unless a country's reported data under the Convention were lower, in which case the lower number was used.

42. In its 2024 report, Oxfam attributed multilateral finance flows to developed countries for the first time and further clarified that its approach to estimate climate-specific net assistance is not to argue that the technical quality of reported figures, for example collected by the OECD or through the reporting mechanisms of the Convention and the Paris Agreement, are erroneous or not in line with the way developed countries have agreed to measure progress against the USD 100 billion goal, but rather to attempt to better reflect the actual financial efforts made by developed countries to provide finance in support of climate action.

43. Table 2.1 provides an updated overview of the approaches used in the sources of information detailed in annex A and updated to reflect the latest publications. In its 2023 report on the doubling of adaptation finance (UNFCCC Standing Committee on Finance, 2023), the SCF provided an overview of the strengths and weaknesses of the approaches used in sources of information as they pertain to tracking progress on doubling adaptation finance. Table 2.2 adapts the information relevant to the USD 100 billion goal to support understanding of the background and approach to the information presented in chapter 3 below.

Table 2.1

Approaches used across backward-looking sources of information on climate finance and the USD 100 billion goal

	BA	BRs	BURs	OECD report series on climate finance and the USD 100 billion goal	Ministry of Finance, India (2015)	Oxfam Climate Finance Shadow Report series
Geographic classification	Based on underlying data sources	Annex II Parties to non-Annex I Parties	GEF, Annex II Parties and other Parties that provide support, the GCF and multilateral institutions	Developed: Annex II Parties plus EU member States, Liechtenstein and Monaco Developing: non-Annex I Parties and/or OECD DAC ODA-eligible recipients	Unspecified	Developed: Annex II Parties Developing: Unspecified
Finance channels and data sources	Multilateral climate funds (CFU, fund reports) MDB-attributed climate finance (OECD, MDBs) Mobilized private finance (OECD, MDBs) Other private finance flows (CPI)	Bilateral, regional and other channels Multilateral channels (typically inflows to multilateral institutions) Limited information on private finance mobilized	Bilateral and multilateral channels	Bilateral public climate finance (BRs); multilateral climate finance (outflows) attributed (OECD DAC); climate-related export credits (OECD ECG database); private finance mobilized through bilateral and multilateral channels (OECD DAC)	Seventeen multilateral climate funds (CFU, June 2015)	Bilateral and multilateral channel outflows attributed (OECD DAC)
Financial instruments and point of measurement	Based on underlying data sources	Grants, concessional loans, non-concessional loans, equity or other, depending on Party reporting Commitments and/or disbursements, depending on Party reporting	Grants, concessional loans, non-concessional loans, equity or other, depending on Party reporting Commitments and/or disbursements, depending on Party reporting	Public finance: grants, loans, equity, (developmental guarantees by one Party only); export credits: loans, guarantees and insurance; private finance mobilized by grants, loans, mezzanine/hybrid finance, equity, developmental guarantees Commitments and/or disbursements based on source	Cumulative disbursements	Climate-specific net assistance based on grants and grant-equivalent value of concessional loan Disbursements
Other	No aggregate estimate of the USD 100 billion goal	No aggregate estimate of the USD 100 billion goal	No aggregate estimate of the USD 100 billion goal	Exclusion of coal-related financing Inflows to multilateral institutions only considered where data on outflows are unavailable	–	Exclusion of coal-related projects, non-concessional loans, equity, guarantees, export credits and other instruments Activities marked as significant under the Rio marker methodology are discounted to 30–50 per cent of project values, activities marked as principal are discounted to 85–100 per cent, unless lower values are used in Parties' reporting.

Table 2.2

Technical considerations for each source of information related to tracking progress towards the goal to jointly mobilize USD 100 billion per year

Source of information	Strengths	Weaknesses
BRs of Annex II Parties and Annex I Parties[a] on financial support provided	Official climate-specific data under the Convention	Limitation in data coverage and reporting by channel Data on finance through multilateral channels predominantly cover inflows to multilateral institutions rather than outflows to adaptation projects in developing countries Data on finance mobilized predominantly cover finance mobilized through bilateral channels only, without data on finance mobilized through multilateral climate funds or MDBs Mix of commitments and disbursements in aggregate data
BURs of non-Annex I Parties on climate finance received	Official data on climate finance received under the Convention	Significant limitations in data coverage and reporting geographically and by channel Mixture of commitments and disbursements in aggregate data No attribution to developed countries of multilateral outflows received
OECD report series on climate finance and the USD 100 billion goal	Aggregate of officially reported climate-specific finance through bilateral channels and OECD DAC outflows from multilateral institutions Attribution of multilateral finance flows and private finance mobilized through bilateral and multilateral channels to developed countries Consistent measures taken to avoid double counting	Mixture of commitments and disbursements in data for bilateral flows owing to the use of BR official data
Ministry of Finance, India (2015), Climate Change Finance, Analysis of a Recent OECD Report: Some Credible Facts Needed	–	Provides an estimate of cumulative amounts of disbursements from multilateral climate funds rather than annual amounts in order to measure against an annual goal Significant limitations in data coverage No time series, singular data point only Not consistent with USD 100bn goal decision language
Oxfam Climate Finance Shadow Report series	Methodology to estimate net grant-equivalent amounts in climate finance provided to better reflect the actual effort undertaken by developed countries to finance climate action Attribution of multilateral finance flows	Stated as not an effort to contest reported figures on climate finance and the goal Climate-specific net assistance based on OECD DAC Creditor Reporting System data marked qualitatively rather than official reported data with their own coefficients applied on projects marked as significant Assumptions made on grant-equivalency of concessional loans for MDBs Not consistent with USD 100bn goal decision language

Source: Based on UNFCCC (2024a), Oxfam (2024), and OECD (2024).

[a]**Other Annex I Parties report voluntarily information on financial support provided.**

2.1.2 Forward-looking sources of information

Biennial communications under the arrangements related to Article 9, paragraph 5, of the Paris Agreement

44. Article 9, paragraph 5, of the Paris Agreement requires developed country Parties, and encourages other Parties providing resources, to biennially communicate indicative quantitative and qualitative information related to the provision and mobilization of climate finance, as applicable, including, as available, projected levels of public financial resources. In 2018, the CMA1[2] outlined the types of information to be provided by Parties, including:

- Enhanced information to increase clarity on the projected levels of public financial resources to be provided to developing countries, as available;
- Indicative quantitative and qualitative information on programmes, including projected levels, channels and instruments, as available;
- Information on action and plans to mobilize additional climate finance as part of the global effort to mobilize climate finance from a wide variety of sources, including on the relationship between the public interventions to be used and the private finance mobilized.

45. In their second biennial communications in accordance with Article 9, paragraph 5, of the Paris Agreement submitted at the end of 2022, Parties used different methodologies for projecting their future levels of climate finance, including:

- Developing multi-year allocation and disbursement scenarios under which politically committed financial targets could be achieved;
- Allocating a percentage, which would increase in the future, of their annual budget for ODA to climate finance;
- Basing their projections on their financial commitments to multi-year programmes and initiatives;
- Using the OECD DAC Rio markers to account for ex post climate finance information;
- Using the ratio set by the OECD DAC to impute their contributions to MDBs and calculate the climate-specific percentage of their core contributions;
- Using OECD DAC methodologies for measuring and tracking private finance mobilized.

46. Future levels of climate finance were projected on the basis of several assumptions, such as that committed multi-year public climate finance will be annually approved for disbursement by parliament and/or equivalent legislative bodies, and that disbursement may be affected by socioeconomic challenges faced by developed countries and/or the changing needs and priorities of developing countries. However, such information is not presented in a common or standardized way to enable accurate aggregation of projected levels of climate finance that would be relevant to this report. Further information is available in the compilation and synthesis of biennial communications related to Article 9, paragraph 5, of the Paris Agreement (UNFCCC, 2023c). Some participants in the second biennial in-session workshop on information to be provided by Parties in accordance with Article 9, paragraph 5, of the Paris Agreement emphasized that there is a link between the biennial communications and the goal of jointly mobilizing USD 100 billion annually for addressing the needs of developing countries, noting the ongoing work of the SCF in this regard. With this in mind, they expressed concerns that the indicative quantitative information provided in the second biennial communications neither enhances clarity nor provides assurance regarding achieving the goal in 2023 (UNFCCC, 2023c).

Other relevant reports

47. The first report on progress outlined detailed descriptions of the approaches used for forward-looking information in the 2016 Roadmap to USD 100 Billion issued by developed countries, the Climate Finance Delivery Plan prepared by Canada and Germany on the invitation of the COP 26 President and an analysis of forward-looking estimates by Oxfam published in 2021 (UNFCCC SCF, 2022).

48. In 2022, Germany and Canada produced the Climate Finance Delivery Plan Progress Report on behalf of countries that have contributed to the USD 100 billion goal, which identified four key collective actions, namely, actions related to adaptation finance, access to climate finance, finance from MDBs and mobilization of private finance (Federal Foreign Office, Germany and Ministry of Environment and Climate Change, Canada, 2022). In developing the progress report, the authors conducted outreach to contributors and developing countries and held two round tables with stakeholders on the climate finance landscape. In 2023, both countries also published

2) Decision 12/CMA.1

Open Letter: Taking Stock of Progress on Climate Finance, which provided further updates on progress made (Federal Foreign Office, Germany and Ministry of Environment and Climate Change, Canada, 2023). Neither the progress report or the open letter updated the forward-looking projections made in the 2021 Climate Finance Delivery Plan.

49. Table 2.3 provides an overview of the approaches used in the sources of information detailed in annex A.

Table 2.3

Approaches used in forward-looking sources of information on climate finance and the USD 100 billion goal

	Biennial submissions by developed country Parties	2016 Roadmap to USD 100 billion	Climate Finance Delivery Plan	Oxfam pledges analysis
Geographical classification	Unspecified	Developed: Annex II Parties plus EU member States, Liechtenstein and Monaco Developing: non-Annex I Parties and/or OECD DAC ODA-eligible recipients	Developed: Annex II Parties plus EU member States, Liechtenstein and Monaco Developing: non-Annex I Parties and/or OECD DAC ODA-eligible recipients	Developed: Annex II Parties Developing: unspecified
Channels and data sources	Range of bilateral, multilateral and private finance channels based on Party reporting	Channels as for the OECD report series on climate finance and the USD 100 billion goal Data based on 2020 pledges and targets as at September 2016 for public finance and a range of possible outcomes depending on how the climate finance portfolio was constructed and the extent to which relevant projects mobilized private finance	Channels as for the OECD report series on climate finance and the USD 100 billion goal Data based on pledges and targets as at 20 October 2021, and two scenarios for assumptions on the delivery of public finance and private finance mobilized	Eleven Annex II Party pledges and MDB pledges as at September 2021. Finance from 13 other Parties, climate funds and export credits assumed to be the same as the 2019 levels reported by the OECD
Other	No forward-looking approach to estimating the achievement of the USD 100 billion goal	Export credits based on the annual average for 2013–2014; private finance mobilized based on a range of outcomes above and below the average 2013–2014 public–private ratio of 0.36	Export credits based on 2019; private finance mobilized based on a range of outcomes from the public–private ratio of 0.22 to a declining rate of 0.21–0.177	Estimates the difference in 2025 pledges to 2020 pledges. For Annex II Parties without pledges, assumes 2019 data on climate finance provided and mobilized that is reported by the OECD

2.2 Approaches used in sources of information on the needs of developing countries

50. This section provides an overview of the approaches used in the sources of information on the needs of developing country Parties. Sources of information presented in this report follow bottom-up approaches based on the needs identified in national reports prepared by developing countries, top-town approaches applied in regional and global reports that use economy-wide or sectoral models, or mixed approaches. While the sources of information presented in this report contain information on the needs of developing countries, the scope, time frames and purposes differ.

2.2.1 National reports

51. A key source of information on the needs of developing countries is the second report on the determination of the needs of developing country Parties related to implementing the Convention and the Paris

Agreement (NDR) by the SCF (UNFCCC SCF, 2024a). Needs reported at the national level were compiled from nine types of report prepared by developing country Parties and submitted under the Convention and the Paris Agreement by 30 June 2024, namely adaptation communications, BURs, LT-LEDS, NAPAs, NAPs, NCs, NDC, TAPs and TNAs. In total, 754 of the latest national reports across these categories are analysed in the second NDR. This compares with 563 reports in the first NDR. In addition to 375 national reports that were considered in the first NDR and are still the latest report of that type submitted by a Party, 194 national reports were new updates that superseded reports considered in the first NDR, and 185 national reports were the first time a Party had submitted that report type, mostly BURs, adaptation communications, NAPs and LT-LEDS.

52. The second NDR compiles and presents information on needs as reported by Parties. The needs included in national reports are identified using a top-down approach (i.e. needs are typically estimated using economy-wide or sectoral modelling techniques) or a bottom-up approach (i.e. needs are typically identified from a project pipeline). Similar challenges as stated in the first report on progress are also reflected in the information on needs from the second NDR, in particular that not all expressed needs are costed, that there is variance in needs in terms of time frame, and that information on methodologies or assumptions used for costing needs is lacking.

53. Some reports use bottom-up approaches to arrive at an estimate of the adaptation costs and corresponding financing needs of developing countries, including through the analysis of national reports and communications of countries submitted under the Convention and the Paris Agreement. This approach is similar to the approach in the NDR, while differences exist in the data collection and aggregation methodologies, and in the reports considered. The UNEP Adaptation Gap Report 2023 analysed 85 NDCs and NAPs of developing countries that entailed quantitative costed information on adaptation needs and extrapolated the financial needs to a global aggregate of all non-Annex I Parties (UNEP, 2023a). The extrapolation was conducted by applying the median and interquartile range of per capita adaptation finance needs in constant 2021 United States dollars by three country income groups (low, lower-middle, and upper-middle and high) as an extrapolation factor to all developing countries in that income group. This process resulted in the upper-bound estimate of the central range presented in chapter 3.2.1 below.

2.2.2 Other relevant reports

54. Chapter IV of the second NDR presents the methodologies and approaches of regional and global reports applied in identifying needs. For determining the mitigation needs of developing countries, these reports use a mix of a climate multimodel comparison study for below 2 °C and 1.5 °C low/no overshoot temperature scenarios, investment opportunities based on stated national plans and targets including and beyond NDCs, or conduct scientific reviews and meta-studies of available needs estimates. Reports based on energy–economy models note that developing country regions have the largest investment gaps to achieving climate scenarios that are in line with the Paris Agreement.

55. Updates in sources of information used since the first report on progress include the updated emission scenarios compatible with a 1.5 °C temperature rise of the IEA (2023) and IRENA (2023). For adaptation needs at the global level, a significant update was undertaken for the UNEP Adaptation Gap Report 2023. The report provides a lower-bound estimate based on sectoral modelling studies and an upper-bound estimate based on the extrapolation of NDC and NAP adaptation costs (see annex B for more information).

56. The Independent High Level Expert Group (IHLEG on Climate Finance report (IHLEG et al., 2023) on climate- and nature-related investment needs of emerging economies and developing countries, which based its key findings on work by Bhattacharya et al.(2022), that assesses sector and geographical requirements for investments to keep the 1.5 °C target in reach and to meet the goals of the Paris Agreement. Climate- and nature-related investments are considered to be a subset of the spending requirements for meeting the Sustainable Development Goals. The IHLEG report also features estimates of adaptation and climate resilience, loss and damage and natural capital and sustainable agriculture spending based on the country-by country approach of Bhattarcharya et al. (2022). The estimates for natural capital investment are a combination of an analysis of agricultural spending by Kharas and McArthur, (2019) and an analysis of investments to protect and restore nature by Systemiq (2021). The estimates for adaptation and resilience investment are based on an analysis by Systemiq (2021). Loss and damage estimates are derived from, among other sources, Markandya and González-Eguino (2019), the UNEP Adaptation Gap Report 2016 (UNEP, 2016)and the World Bank Country Climate and Development Report series (World Bank, n.d.).

2.3 Approaches used in sources of information on meaningful mitigation actions and transparency on implementation

57. This section provides an overview of approaches used in sources of information on meaningful mitigation actions and transparency on implementation. Relevant quantitative and qualitative information and trends from these sources are outlined in chapter 3 below. For each of the elements of the analysis this section first presents the rationale for including the specific element and then outlines the corresponding sources and approaches used. A more detailed description of the methods and approaches used by the underlying sources in generating the information is included in annex B.

2.3.1 Greenhouse gas emissions

58. **Looking back.** The development of GHG emissions provides important context for the analysis of meaningful mitigation actions, especially since the growth rates of emissions can be an indicator of successful or unsuccessful implementation of such actions.

59. The secretariat has prepared annual synthesis reports on the overall effect of NDCs since 2021, following the initial synthesis of INDCs in 2015 and 2016, with the latest report covering NDCs submitted as at 25 September 2023 (UNFCCC, 2023b). Although the reports mainly assess the effects of NDCs, they also provide historical GHG emissions as a reference (using the PRIMAP-hist data set from the Potsdam Institute for Climate Impact Research). The IPCC provides estimates of emissions up to 2019 (IPCC, 2022). The UNEP Emissions Gap Report series (UNEP, 2023b) provides estimates of emissions based on the Emissions Database for Global Atmospheric Research for non-LULUCF emissions, which provides a consistent data set at the global level, and provides LULUCF emissions based on selected research results obtained by applying the modelling approach used in the IPCC assessment reports, which differs from the approach used by countries in their reporting under the Convention. In the absence of updated emission estimates from the IPCC, the data in the NDC synthesis report have been used to analyse emissions excluding LULUCF. Data from the UNEP Emissions Gap Report series are used to analyse emission trends, including LULUCF emissions, in the absence of updated IPCC data, as the methodology used is in line with that used by the IPCC.

60. **Looking forward.** Before looking at the extent of ambition on mitigation action based on targets in the medium to long term, it is useful to examine the projected trend in emissions based on existing policies, both adopted and implemented. Many organizations are developing scenarios that aim to capture likely GHG emissions development under the policies in place at that specific point in time – so called current policy scenarios. Such scenarios model possible future developments, considering any existing policies that can influence GHG emissions, irrespective of submitted or announced targets. Such scenarios are often used to assess whether existing policies are likely to achieve commitments under the Convention and the Paris Agreement or any national targets. Observing how such projections change over time, as additional policies are implemented, can provide an indication of how effective implemented policies are and how the implementation of mitigation measures is progressing.

61. A comparison of current policy scenarios over time is not a full assessment of the effectiveness of implemented measures. There are many factors that can influence the projections, including assumptions on key drivers, such as population growth and economic development, and methodological changes. For a more robust analysis, a full ex post assessment would be required, which is currently not available at the global level. However, comparing results from current policy scenario projections from the same modelling teams over time can provide an indication on how they assess the effectiveness of implemented action.

62. The UNEP Emissions Gap Report series assesses the global emission trends and nationally communicated emission reduction ambition against estimated emission pathways consistent with limiting global warming to below 2 °C and pursuing 1.5 °C, drawing on information provided in quantified economy-wide emission reduction targets and NAMAs (since 2010) and NDCs (since 2015). Since 2015, the reports also contain a current policy scenario based on legislative decisions and executive orders, or their equivalent. Officially announced plans or strategies are not considered, while executive orders to implement such plans or strategies are. This report on progress compares the projected emission levels in 2030 under the current policy scenario from different UNEP Emissions Gap Report series reports over time. Reports were selected from 2015 in two-year intervals, although the 2022 report is used in chapter 3 instead of the 2021 report, as that is the most recent report with comparable data. Owing to a methodology change, data from the 2023 report are not included in chapter 3. Data for 2022 are adjusted based on table 4.2 of the UNEP report in order to enable comparison with previous reports.

63. The IEA World Energy Outlook series also contains estimates for a current policy scenario[3] based on existing policies and measures, but also those that are under development, usually taking into account relevant policies and implementation measures adopted as at the end of August of the year of publication, using the IEA bottom-up model(IEA, 2023). The resulting emission levels in 2030 of these scenarios are compared in chapter 3. Reports were selected from 2010 in five-year intervals plus the latest report (2023) and the 2019 and 2021 reports to reflect pre- and post-pandemic changes.

2.3.2 Mitigation ambition

64. Setting targets is often a first step and an indication of planned or implemented mitigation action. Analysing the level of ambition of such targets can therefore provide insight into the context of meaningful mitigation action of different stakeholders and associated time frames.

65. **NDCs.** Since 2014, the COP has mandated the secretariat to prepare synthesis reports, first on INDCs in anticipation of the culmination of negotiations on the Paris Agreement in 2015, which was later updated to include all INDCs submitted as at 4 April 2016.[4] COP 21 and CMA 2 also provided mandates for the secretariat to prepare synthesis reports on NDCs submitted by Parties. An initial version of the report was published in February 2021 on NDCs submitted as at 31 December 2020, followed by a full version in September 2021, on NDCs submitted as at 30 July 2021, which included an addendum outlining the approach and methods used for estimating emission levels based on the NDCs. An updated version was published ahead of COP 26, on 25 October 2021, which considered all NDCs submitted as at 12 October 2021.[5] Further updates were published in 2022 and 2023, the latter covering all NDCs submitted as at 25 September 2023.[6]

66. The approach to estimating the aggregate effect of emission levels based on NDCs included separately estimating unconditional emission reduction levels and estimating the combined effect of unconditional and conditional emission reduction levels. For countries, sectors and gases not covered by the NDCs, estimates derived from the IPCC reference scenario were used. Where a target for 2025 was not specified, the synthesis report applies linear interpolation between the latest historical emission level available and the estimated level of emissions in 2030 resulting from the implementation of a Party's NDC.[7]

3) Referred to as the "Stated Policy Scenario".
4) Available at https://unfccc.int/process/the-paris-agreement/nationally-determined-contributions/synthesis-report-on-the-aggregate-effect-of-intended-nationally-determined-contributions.
5) Available at https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/nationally-determined-contributions-ndcs/ndc-synthesis-report#eq-1.
6) Available at https://unfccc.int/ndc-synthesis-report-2023.
7) Further information on the methodologies applied is available in the respective addendums to the NDC synthesis reports.

Table 2.4

Range of approaches used in national reports that contain information related to the needs of developing countries

	Description	General guidance available?	Detailed guidance available (e.g. methodologies)?	Guidance makes explicit reference to needs?	Periodicity	Time frame covered
Adaptation communications	Adaptation priorities, implementation and support needs, plans and actions Adaptation communications are presented independently or in conjunction with NDCs, NAPs or other reports (Article 7, paras. 10–11, of the Paris Agreement)	Yes, as specified in decision 9/CMA.1	No	Yes	Submitted to inform each global stocktake	Not specified
BURs	Submitted by non-Annex I Parties Updates of national GHG inventories Information on mitigation actions, needs and support received; and information on "constraints and gaps, and related financial, technical and capacity needs, including a description of support needed" (decision 2/CP.17, annex III, paras. 14–16)	Yes	No	Yes	Biennially, with flexibility for the LDCs and SIDS	Not specified
LT-LEDS	Communicate by 2020, mid-century, long-term low GHG emission development strategies in accordance with Article 4, paragraph 19, of the Paris Agreement LT-LEDS take into account common but differentiated responsibilities and respective capabilities in the light of different national circumstances, as well as the best available science	Yes	No	No	Not specified	In most cases until 2050 Most needs are reported between 2020 and 2030
NDCs	Each Party is to prepare, communicate and maintain successive NDCs that it intends to achieve (Article 4, para. 2, of the Paris Agreement) Contain various types of target Contain conditional and/or unconditional components; conditional components are implemented subject to the provision of finance, technology or capacity-building support	Yes, as specified in decision 4/CMA.1	No	No	Every five years	First NDC: 2020/2025–2030 Most needs are reported over a 10-year time frame, 2020–2030
NAPAs	The LDCs are to identify priority activities that respond to their urgent and immediate adaptation needs Guidelines for preparing NAPAs are contained in the annex to decision 28/CP.7	Yes	Yes	Yes	Not specified	Short term and immediate term

Table 2.4 (continued)

Range of approaches used in national reports that contain information related to the needs of developing countries

NCs	Submitted by Parties Contain information on national circumstances; GHG inventoried; vulnerability and adaptation assessment; mitigation assessment; financial resources and transfer of technology; and education, training and pub	Yes, as contained in decision 17/CP.8	Yes	Yes	Every four years, with flexibility for the LDCs and SIDS	Not specified
NAPs	Objectives: • Reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience • Integrate adaptation into new and existing policies and programmes, especially development strategies	Yes, as contained in decision 5/CP.17	Yes	Yes	Not specified	Medium- and long-term adaptation needs
TNAs	Determine climate technology priorities Map out long-term development priorities Identify technologies to realize lower emissions and stronger climate resilience	Yes	Yes	Yes	Not specified	Long-term needs and priorities
TAPs	Plan for the uptake and diffusion of prioritized technologies for adaptation and mitigation actions	Yes	Yes	Yes	Not specified	Range from 5, 10 or beyond 10 years

67. Additionally, results from the UNEP Emissions Gap Report series were used. The quantification of the impact of new or updated NDCs and announcements compared with previous NDCs was conducted using a range of five model groups and two open source tools for projecting NDC emissions.[8] For a technical explanation of arising differences in projected emissions between the UNEP Emissions Gap Report 2021 and the NDC synthesis report, see the joint technical note by the UNFCCC and UNEP.[9] Emission levels for 2025 and 2030 for the unconditional and conditional scenarios from the 2015, 2017 and 2020 UNEP reports are compared with 2010 historical data from the 2012 report, while 2023 scenarios are compared with the 2010 values from the same report, as methodologies changed between the 2021 and 2022 editions.

68. The analysis in this report draws on these reports and compares remaining emission levels in 2030 across the reports and compared with 2010 levels, under the assumption that enhanced ambition over time through the submission of new NDCs or the update of previous NDCs will result in lower emission levels in 2030.

69. **LT-LEDS.** The first synthesis report on LT-LEDS was prepared in response to the request of CMA 3 for the secretariat to prepare such a report to be made available at CMA 4,[10] and the report was published on 26 October 2022, covering LT-LEDS submitted as at 23 September 2022.[11] This mandate was renewed at CMA 4, resulting in an update covering all submissions as at 25 September 2023.[12]

70. While the ambition of long-term targets is outside the time frame of the USD 100 billion goal, the setting of the ambition occurred within the time frame and is a relevant signal for the realization of mitigation actions in the short term (up until 2025). Parties have various types of target, including carbon neutrality and net zero GHG emissions, which aim in principle to achieve the goal. Time frames for these targets vary, but the development of such targets can provide valuable insight into the global ambition level for the long term. The analysis in this report therefore compares the aggregate number of such targets between the two published synthesis reports.

71. **NAMAs.** NAMAs are defined in two contexts: the national level and the individual action level. At the national level they are defined in a formal submission by Parties declaring intent to mitigate GHG emissions in a manner commensurate with their capacity and in line with their national development goals. At the individual action level they are defined in detailed actions or groups of actions designed to help a country meet its mitigation objectives within the context of national development goals. These individual action NAMAs are diverse, ranging from project-based mitigation actions to sectoral programmes and policies. The NAMA registry enables Parties to register such NAMAs, and developed country Parties and public and private organizations with programmes of support relevant to NAMAs may be granted editor access to the registry in order to submit funding opportunities.[13] The secretariat provides an annual report on the NAMA registry to the COP each year, which covers the volume, scope and content of NAMAs.

2.3.3 Policies and measures and transparency on implementation

72. The analysis of policies and measures and the analysis of transparency on implementation is based on information reported by Parties in the context of their reporting under the MRV framework under the Convention. It summarizes focus areas expressed in submissions and mitigation actions reported and compares developments over time, as far back as information is available.

73. All Parties submit NCs, which include information on domestic mitigation actions. Annex I Parties are required to prepare NCs every four years against an agreed outline, which includes policies and measures related to mitigation, their effects and projections, financial resources and transfer of technology. Non-Annex I Parties' NCs are submitted within three years of their entering the Convention and every four years thereafter. These NCs do not follow an agreed outline but Parties are encouraged to include information based on national circumstances and capacities and information on programmes and measures that contribute to mitigating climate change. As noted in chapter 2.1.1 above, Annex

8) Further information on the UNEP Emissions Gap Report methodology is available at https://www.unep.org/resources/emissions-gap-report-2021, in particular chapter 2.
9) Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/37351/UNEP-UNFCCC_EGR.pdf?sequence=1&isAllowed=y.
10) Decision 1/CMA.3, para. 34.
11) Available at https://unfccc.int/documents/619179.
12) Available at https://unfccc.int/lt-leds-synthesis-report.
13) More information is available at https://unfccc.int/topics/mitigation/workstreams/nationally-appropriate-mitigation-actions/nama-registry#eq-2.

II Parties submit information in BRs on climate financial support provided. Annex I Parties (not only Annex II Parties) submit BRs that include information on domestic mitigation actions. Similarly, non-Annex I Parties submit BURs that include information on domestic mitigation actions in addition to communicating their needs for international support and the support received to date.[14]

74. COP 17 requested the secretariat to prepare compilation and synthesis reports on the information reported by developed countries in their BRs.[15] The latest available report covers BR5 submissions received as at 1 July 2023, including updates of information for the BR4s and BR5s, where applicable. There is no similar mandate for developing country reporting. Information on mitigation measures is based on the synthesis report for the global stocktake, particularly the addendum on the state of GHG emissions and removals and the supporting documentation.[16]

75. Information on REDD+ was sourced from the REDD+ Information Hub[17] and the synthesis report for the global stocktake, including reporting in the context of REDD+ annexes to BURs.

76. Parties also report on mitigation actions and priority areas in their NDCs, underpinning communicated targets with planned or implemented policies and actions. The NDC synthesis reports summarize this information.

77. Information on individual important mitigation instruments was collected from various sources. Instruments represent some examples of policies that feature in many submissions, such as NDCs, BRs, BURs, NCs and the IPCC AR6, in which information on the global status of implementation was available. Information on policies in the agriculture, industry and waste sectors is scarce and was not available at the global level. Information from the World Bank's State of Carbon Pricing series was used (World Bank, 2023). Information in reports from 2022 and 2023 was compared with information from the 2021 report as referenced in IPCC 2022. Information includes the overall number of carbon pricing mechanisms, the GHG emissions covered and new developments in developing countries. Information from the UNEP 2024 Global Status Report for Buildings and Construction was used and was compared with information in the 2021 edition of the same report (UNEP, 2024).

78. REDD+ activities. Information on REDD+ strategies was sourced from the REDD+ Information Hub[18] and the twelfth report of the GCF to the COP. Information covers the number of national strategies adopted by countries and the number and funding volume of projects related to REDD+ activities under the GCF pilot programme.

Box 2.1

Potential improvements on transparency on implementation under the enhanced transparency framework under the Paris Agreement

Information in this section stems largely from reporting under the MRV framework under the Convention, including NCs, BRs and BURs and relevant annexes. Under the Paris Agreement, the ETF was adopted to further enhance the reporting system. While NCs will continue to be prepared under the Convention, BR and BUR reporting will be replaced by BTRs and the corresponding reporting tables by the end of 2024. All Parties will then report using the same guidelines and structure, with some flexibility for the LDCs and SIDS regarding submission timelines and level of detail. BTRs will enhance the available information. Two BTRs had been submitted as at April 2024, but this does not yet provide a sufficient basis for analysis. BTRs will, however, be a source of relevant information on meaningful mitigation actions in the future based in OECD member countries to project activities in non-OECD member-countries and vice-versa.

14) Guidelines for Annex I Parties' NCs are outlined in the annex to decision 6/CP.25, and guidelines for Annex I Parties' BRs are outlined in the annex to decision 2/CP.17. For non-Annex Parties' NCs, guidelines are outlined in the annex to decision 17/CP.8, and non-Annex Parties' BURs are outlined in the annex to decision 2/CP.17. Further information is available at https://unfccc.int/reporting-and-review.

15) Decision 2/CP.17, para. 21.

16) More information is available at https://unfccc.int/global-stocktake-secretariat-synthesis-reports-and-addendas

17) Available at https://redd.unfccc.int/.

18) Available at https://redd.unfccc.int/.

2.3.4 Investment and action

79. Apart from action by Governments related to setting targets and implementing policies and measures, an important element of meaningful action is in the context of investment and action on the ground. However, information on the aggregate effects of investment and action is scarce, although a substantial amount of data is available on a project-by-project basis. The information in the corresponding section in chapter 3.3.1 below therefore only highlights some developments that provide an indication of meaningful action, but cannot provide a comprehensive overview. The approaches used in the sources of information are outlined below.

80. **Climate finance results.** Data for GCF funding are based on information provided on the GCF Project Portfolio Dashboard[19] and GEF data are based on the report of the GEF to the COP and the CMA.[20] Area definitions vary across institutions and original categorizations were used, so information is not directly comparable. The World Bank reports GHG emission reductions from funded projects as part of its Results Measurement System under its tier 2 indicator set but does not break down the impact by sector or focus area.[21] The ADB also reports on total GHG emission reductions from projects, but does not break this down further.[22] The World Bank and the ADB report on achieved or expected results, but do not specify the amount of funding related to the results.

81. Clean energy investment. Information on clean energy investments is from a variety of sources, including the IEA World Energy Investment series, which provides information on global energy investment by region and by breakdown of advanced economies (defined as OECD member States plus Bulgaria, Croatia, Cyprus, Malta and Romania), China, and emerging markets and developing economies (defined as all other countries). The IEA provides aggregate totals for clean energy investment as well as fossil fuels without carbon capture and storage across both the supply side (upstream and downstream, including power generation) and demand side (end-use activities and energy efficiency). Clean energy includes renewable power, nuclear power, EVs, low-carbon fuels, CCUS, grids and storage, energy efficiency and oth¬¬er end uses. Energy efficiency and other end uses includes spending on energy efficiency, renewables for end use, and electrification of the buildings, transport and industry sectors. Low-carbon fuels include modern liquid and gaseous bioenergy, low-carbon hydrogen and hydrogen-based fuels that do not emit CO2 from fossil fuels directly when used and that also emit very little when being produced. Investment is measured as the ongoing capital spending on assets. For energy efficiency, the measurement includes the incremental spending by companies, governments or individuals to acquire a piece of equipment that is more efficient than the local market average.

82. Apart from overall investments, chapter 3 also highlights the development of some specific clean energy technologies, with a focus on developing countries. This includes investments in clean cooking enterprises, based on the 2023 Clean Cooking Industry Snapshot by the Clean Cooking Alliance (Clean Cooking Alliance, 2023). The data are self-reported from a survey of more than 700 enterprises, supplemented by publicly available data. Enterprises include biomass cookstove manufacturers, producers of processed biomass fuel and biogas systems, liquid petroleum gas distributors focusing on increasing access of consumers in low- and middle-income countries, distributors of electric and solar solutions, and service providers. EV sales are based on the IEA Global EV Data Explorer. Information on green steel projects is based on the Green Steel Tracker database.

83. Table 2.5 provides an overview of the approaches used in national reports submitted under the Convention and the Paris Agreement and aggregate-level reports that contain information related to the third dimension of the goal.

19) Available at https://www.greenclimate.fund/projects/dashboard (data accessed 9 February 2024).

20) Available at https://unfccc.int/sites/default/files/resource/cp2023_06_adv.pdf.

21) Available at https://thedocs.worldbank.org/en/doc/4655cdff76a8c224b4a9352f19d23add-0410012023/original/IDA20-digital-brochure-12-23.pdf.

22) Effectiveness reviews for 2022 and 2023 are available at https://www.adb.org/sites/default/files/institutional-document/874991/defr-2022.pdf and https://www.adb.org/sites/default/files/institutional-document/963271/2023-development-effectiveness-review.pdf.

Table 2.5

Range of approaches used in sources of information related to meaningful mitigation and transparency on implementation

	Description	Periodicity	Time frame covered (for this report)	Relevant areas covered	Data sources used (where applicable)
National reports:					
NAMAs	Voluntary submission of information on NAMAs by developing countries to seek international support May include estimated costs, emission reductions and time frames for implementation	Not specified	2010–2020	Actions for recognition Actions seeking support for preparation Actions seeking support for implementation	NA
INDCs/NDCs	Each Party is to prepare, communicate and maintain successive NDCs that it intends to achieve (Article 4, para. 2, of the Paris Agreement) Contain various types of target Contain conditional and/or unconditional components; conditional components are implemented subject to the provision of finance, technology or capacity-building support	Every five years	2020/2025–2030	Emissions Type of commitments Priority areas	NA
LT-LEDS	Voluntary submission of long-term low GHG emission development strategies Contain long-term targets	Not specified	Up to 2065	Net zero commitments	NA
NCs/BRs/BURs	See table 2.4 above	NCs: every four years, with flexibility for the LDCs and SIDS BRs/BURs: biennially, with flexibility for the LDCs and SIDS	Not specified	Mitigation actions Finance provided/received Information on REDD+ activities	NA
NAPs	Aim to support the LDCs in identifying medium- and long-term adaptation needs and developing and implementing strategies and programmes to address those needs Other developing country Parties are invited to employ the modalities formulated to support NAPs	Not specified	NA	Adaptation needs Investment and funding requirements	NA

Table 5 (continued)

Ranges of approaches used in select sources of information related to meaningful mitigation and transparency on implementation

Adaptation communications	Each Party should submit and update periodically May be submitted as part of an NC or a NAP May include information on its priorities, implementation and support needs, plans and actions	Not specified	NA	Adaptation actions Adaptation needs and plans	NA
Synthesis reports prepared by the UNFCCC secretariat					
NDC synthesis report	Aggregation of commitments submitted in NDCs Comparison with IPCC pathways Summary of non-quantitative information contained in NDCs	Annual	2010–2030	Emissions	Parties' reporting under the Paris Agreement
Synthesis reports for the global stocktake	State of GHG emissions by sources and removals by sinks Mitigation efforts undertaken by Parties	Every five years	1990–2020	Mitigation actions	Parties' reporting under the Convention and the Paris Agreement
BR synthesis report	Key findings in relation to quantified economy-wide emission reduction targets for 2020 Information on mitigation actions and their effects	Every two years	2020	Mitigation actions	Parties' reporting under the Convention
LT-LEDS synthesis report	Aggregation of long-term targets communicated in LT-LEDS Summary of non-quantitative information contained in LT-LEDS	Annual	Up to 2065	Net zero commitments	Parties' submissions under the Paris Agreement
External reporrts					
UNEP Emissions Gap Report	Aggregation of commitments submitted in NDCs Comparison with IPCC pathways	Annual	2010–2030	Emissions	Parties' reporting under the Convention and the Paris Agreement , Party announcements, third-party model providers

Table 5 (continued)

Ranges of approaches used in select sources of information related to meaningful mitigation and transparency on implementation

IEA World Energy Outlook	In-depth analysis and strategic insights into every aspect of the global energy system Energy and emission projections under different scenarios	**Annual**	**2010–2030**	Emissions	Own research and country contributions
IEA Investment Report	Tracking capital flows in the energy sector Overview of how investors are assessing risks and opportunities across all areas of fuel and electricity supply, critical minerals, efficiency, research and development, and energy finance	**Annual**	**2015–2024**	Clean energy investment	Own research and country contributions
IRENA database	Statistics on renewable energy capacity, power generation and renewable energy balances	**Annual**	**2015–2023**	Installed renewable energy capacity	Own research and country contributions
IEA Global EV Outlook	Statistics on EV markets Market and investment overview	**Annual**	**2010–2023**	EV car sales	Own research and country contributions
ADB reporting	Effectiveness of financing provided	**Annual**	**2022–2023**	Funding and aggregate emission reductions from funded projects	Own data
GCF reporting	Effectiveness of financing provided	**Continuous**	**Up to 2023**	Funding and aggregate emission reductions by results area	Own data
GEF reporting	Effectiveness of financing provided	**Annual**	**Up to 2023**	Funding and aggregate emission reductions by sector	Own data
World Bank reporting	Effectiveness of financing provided	**Annual**	**2022–2023**	Funding and aggregate emission reductions from funded projects	Own data
Clean Cooking Alliance reporting	Investment and operational trends in clean cooking Focus on for-profit enterprises in low- and middle-income countries	**Annual**	**2014–2022**	**Capital raised by clean cooking enterprises**	**Self-reporting by enterprises and own research**

3

Quantitative and qualitative information and trends

3.1 Trends in progress towards achieving the goal of mobilizing jointly USD 100 billion per year

84. This section provides an overview of trends from the available qualitative and quantitative information on progress towards achieving the goal of mobilizing jointly USD 100 billion per year. In the absence of a multilaterally agreed accounting methodology to assess progress towards the goal of mobilizing jointly USD 100 billion per year by 2020 through to 2025, the assessment is guided by the wording of the goal and relevant subsequent decisions. Based on this, the report aims to assess the progress building on the available sources of information, which apply different accounting methodologies and take into account different sources, channels and financial instruments, as described in chapter 2 above. Some analyses pursue an approach and methodology that is broad in scope of accounting of finance from a wide variety of sources, as per the decision language of the goal, while other analyses choose an approach that aims to reflect financial effort by developed country Parties by discounting loan repayments and excluding specific financial instruments. Proponents of the latter approach do not contest the technical accuracy of the former approach in measuring progress towards the goal according to the agreed methodology of developed countries (Oxfam, 2024).

85. The trends in growth or decline of finance flows described below refer to sources of information for which multiple-year data points exist and which use a consistent approach and methodological assumptions. The year-on-year difference in volume of flows in total and by channel are provided by each source. Irrespective of different views on what should constitute overall progress towards the goal, reviewing trends in climate finance flows by each channel allows for a transparent comparison of progress towards achieving the goal and scaling up climate finance more broadly.

3.1.1 Current status and trends of finance flows towards achieving the goal of mobilizing jointly USD 100 billion per year

86. Figure 3.1 provides an overview of the trends in available data from the different sources of information.

87. **Biennial reports.** As noted in chapter 2.1.1 above, analysing trends in official reported data on climate finance in BRs up to 2020 against the unofficial preliminary estimates from Parties on climate finance in the 2021 and 2022 invited by the SCF to support the preparation of the sixth BA is affected by:

- The preliminary nature of the data and how they are subject to change once official BTRs are submitted at the end of 2024
- The transition to the new reporting formats under the ETF lead to Parties expanding the scope of reporting and affect comparative trends from the previous reporting formats

88. For these reasons, trends are analysed for both the aggregate of climate-specific public finance in bilateral and multilateral channels (in line with the reporting total in previous years) and for the total of climate-specific finance, including these channels and the channel of finance mobilized by public interventions. Information on financial instruments used and geographical distribution is not available across the preliminary data and is therefore not analysed.

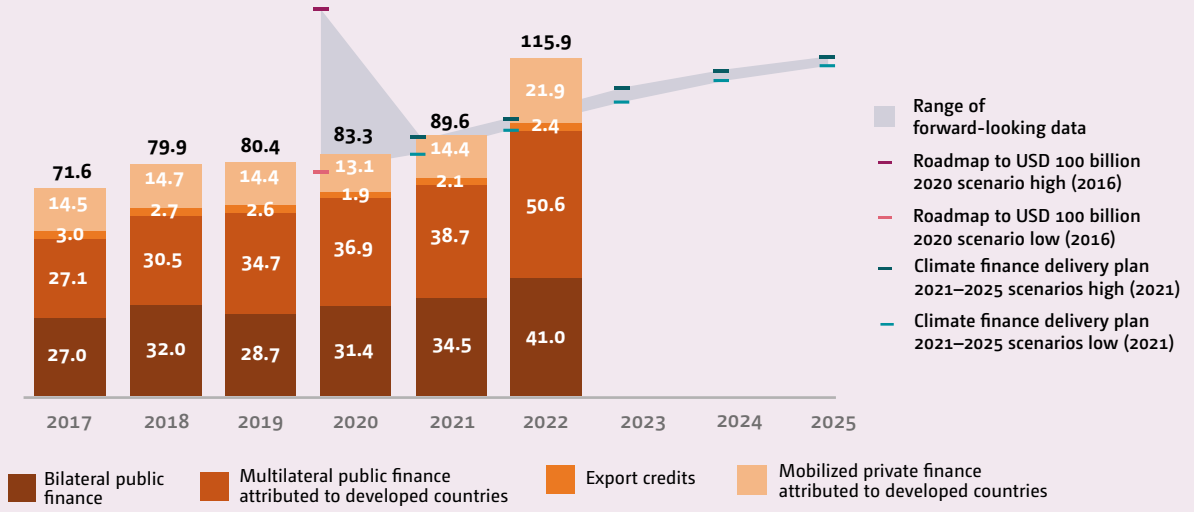
89. In aggregate, climate-specific finance from Parties for which preliminary data are available grew by 19 per cent in 2021–2022 compared with 2019–2020, to reach USD 48.4 billion on average annually. When including preliminary estimates for finance mobilized by public interventions, the annual average of total climate-specific finance grew by 43 per cent, to reach USD 58.3 billion. As shown in Figure 3.1, there was particularly strong year-on-year growth from 2021 to 2022, reaching USD 67.1 billion in preliminary estimates.

90. Climate-specific finance through bilateral, regional and other channels increased by 21 per cent on average in 2021–2022 compared with 2019–2020, to USD 38.4 billion, and was two thirds of the total climate-specific amounts. From 2020 to 2022, the growth was 34 per cent. Climate-specific finance through multilateral channels, which predominantly consists of inflows to multilateral institutions rather than outflows to projects in developing countries, increased by 13 per cent on average in 2021–2022 compared with 2019–2020. From 2020 to 2022 growth was 10 per cent. Preliminary data on climate-specific finance mobilized through public interventions were available from 12 Parties, which showed a significant increase in 2022 compared with 2021, as shown in figure 3.1.

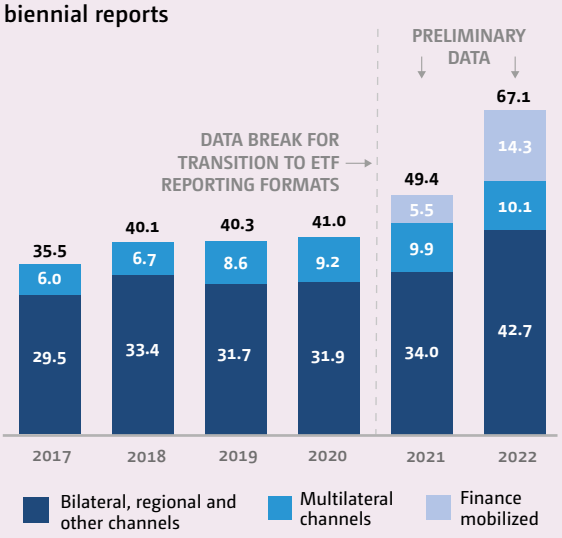
Figure 3.1

Trend in aggregate estimates from backward and forward-looking information
(Billions of United States dollars, annualized)

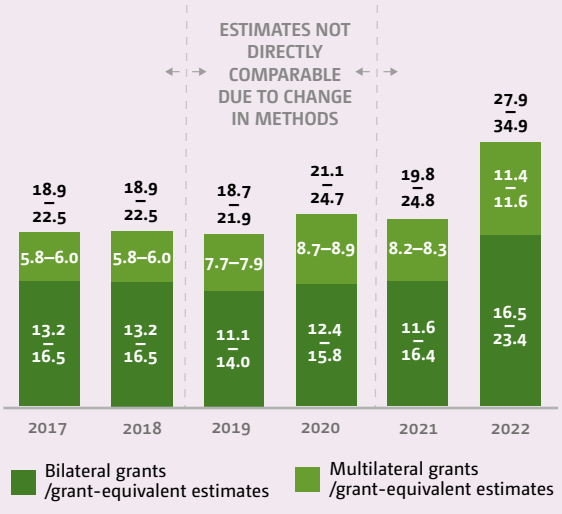
OECD climate-finance provided and mobilized and forward-looking scenarios based on OECD analysis



Climate-specific finance reported through Parties biennial reports



Oxfam climate-specific net assistance

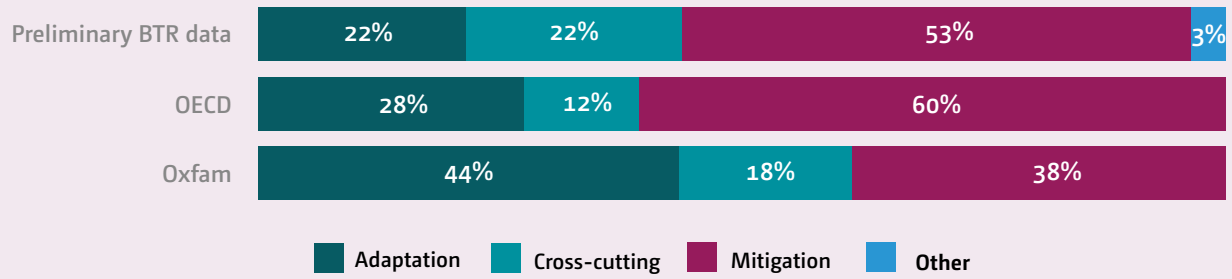


Sources: Data from OECD 2024, UNFCCC SCF 2024a, Oxfam 2024, COP26, 2021, OECD, 2016.

Notes: (1) forward-looking data comprise pledges made up to 20 October 2021 in the Climate Finance Delivery Plan.; (2) the dashed lines indicate values for which data are not comparable with previous years owing to a change in method or scope of reporting; (3) the values for climate-specific finance reported in BTRs for 2021 and 2022 are preliminary data that are subject to change after the submission deadline for BTRs of 31 December 2024; (4) the Oxfam graph is based on analyses that make assumptions on finance sources and financial instruments not aligned with the language of the USD 100 billion goal.

Figure 3.2

Thematic distribution of 2021–2022 climate finance from available sources of information

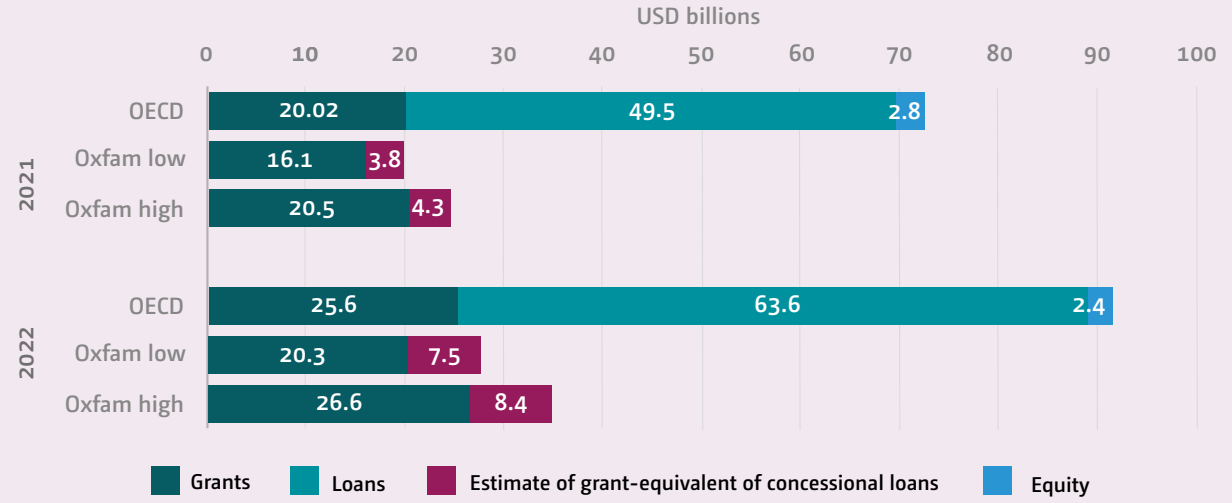


Sources: UNFCCC SCF 2024a, OECD 2024, Oxfam 2024

Note: Sources of information have different methodological approaches, as outlined in chapter 2 above.

Figure 3.3

Instrument breakdown for climate finance from public sources (bilateral and multilateral channels) in 2021–2022 from available sources of information



Sources: UNFCCC SCF 2024a, OECD 2024, Oxfam 2024

Note: Sources of information have different methodological approaches, as outlined in chapter 2 above. The instrument breakdown of Oxfam's low and high end range of estimates are presented separately.

87. **Biennial reports.** As noted in chapter 2.1.1 above, analysing trends in official reported data on climate finance in BRs up to 2020 against the unofficial preliminary estimates from Parties on climate finance in the 2021 and 2022 invited by the SCF to support the preparation of the sixth BA is affected by:

- The preliminary nature of the data and how they are subject to change once official BTRs are submitted at the end of 2024
- The transition to the new reporting formats under the ETF lead to Parties expanding the scope of reporting and affect comparative trends from the previous reporting formats

88. For these reasons, trends are analysed for both the aggregate of climate-specific public finance in bilateral and multilateral channels (in line with the reporting total in previous years) and for the total of climate-specific finance, including these channels and the channel of finance mobilized by public interventions. Information on financial instruments used and geographical distribution is not available across the preliminary data and is therefore not analysed.

89. In aggregate, climate-specific finance from Parties for which preliminary data are available grew by 19 per cent in 2021–2022 compared with 2019–2020, to reach USD 48.4 billion on average annually. When including preliminary estimates for finance mobilized by public interventions, the annual average of total climate-specific finance grew by 43 per cent, to reach USD 58.3 billion. As shown in Figure 3.1, there was particularly strong year-on-year growth from 2021 to 2022, reaching USD 67.1 billion in preliminary estimates.

90. Climate-specific finance through bilateral, regional and other channels increased by 21 per cent on average in 2021–2022 compared with 2019–2020, to USD 38.4 billion, and was two thirds of the total climate-specific amounts. From 2020 to 2022, the growth was 34 per cent. Climate-specific finance through multilateral channels, which predominantly consists of inflows to multilateral institutions rather than outflows to projects in developing countries, increased by 13 per cent on average in 2021–2022 compared with 2019–2020. From 2020 to 2022 growth was 10 per cent. Preliminary data on climate-specific finance mobilized through public interventions were available from 12 Parties, which showed a significant increase in 2022 compared with 2021, as shown in figure 3.1.

91. The preliminary data show significant growth across all themes in the climate-specific aggregate estimate, as well as under each channel. Adaptation in public finance channels (bilateral and multilateral) increased by 24 per cent, compared with 16 per cent for mitigation finance. However, including finance mobilized in the aggregate leads to an adaptation finance increase of 28 per cent, compared with 46 per cent for mitigation. Cross-cutting finance grew the most out of all the themes, by 62 per cent in the total aggregate. Year-on-year, adaptation finance decreased by 10 per cent in 2021 before increasing by 23 per cent in 2022, mitigation finance increased by 20 per cent and 69 per cent in 2021 and 2022 respectively, while cross-cutting finance increased by 49 per cent from 2020 to 2022.

92. In terms of their relative share, most of the climate-specific finance reported is directed at mitigation activities (53 per cent), but, owing to its strong growth, cross-cutting finance takes a larger share than adaptation finance, at 23 per cent compared with 22 per cent. The new separate category on finance mobilized, with a focus largely on mitigation activities, plays a key role in this trend as under public finance channels (bilateral and multilateral), adaptation finance increased its share from 24 to 25 per cent, mitigation finance decreased from 52 to 50 per cent and cross-cutting finance increased from 20 to 25 per cent. Given the prevalence of unreported and unallocated finance in the preliminary data (3 per cent to unspecified activities), these shares are likely to change as Parties finalize their data sets for the official BTR reporting deadlines at the end of 2024.

93. **Biennial update reports** submitted by non-Annex I Parties may include information on climate finance received or committed. Of the 104 Parties that have submitted BURs, 20 included information on climate finance received in 2021 or 2022. USD 1.135 billion was reported as either committed or received for projects starting in 2021 and USD 1.283 billion for projects starting in 2022. The reported support received was derived from various international sources, including bilateral and multilateral channels. Some non-Annex I Parties reporting financial information include details on co-financing for projects committed through multilateral climate funds, such as the GEF, GCF and Adaptation Fund. Some Parties, such as Argentina and Guyana, also reported information on the support received from other developing countries, while South Africa provided information on climate finance action financed from domestic sources, although some Parties listed projects under the support received section of the BUR without specifying the implementation cost of the project. Owing

to the time lag in data availability, and varying levels of the information reported, it remains challenging to provide a comprehensive update on the finance received by developing country Parties.

94. **The OECD report series on climate finance and the USD 100 billion goal** reported a 29 per cent increase in 2022 from 2021, to reach USD 115.9 billion in climate finance provided and mobilized, which is the first time that its data had shown that the USD 100 billion threshold had been surpassed. Multilateral public finance from MDBs to projects in developing countries was a strong driver, increasing by 31 per cent on 2021, while bilateral public finance increased by 19 per cent. 2022 saw decreases in the amount climate finance outflows from multilateral climate funds by 19 per cent as the GCF and other multilateral climate funds transitioned between replenishment and programming periods. Private finance mobilized increased by 52 per cent, albeit from a lower base.

95. By theme, the highest relative growth was in adaptation finance, which increased by 32 per cent in 2022 compared with 2021, to reach USD 32.4 billion, with mitigation finance and cross-cutting finance increasing by 30 and 21 per cent. It should be noted that the growth in adaptation finance in 2022 followed a decrease in 2021 of 14 per cent compared with 2020. This trend impacts the shares of different themes, where adaptation finance holds a 28 per cent share in 2022, compared with 27 per cent in 2021 and 34 per cent in 2020. Mitigation finance remained at 58–60 per cent in those years, while cross-cutting finance increased from 7 per cent in 2020 to 13 and 12 per cent in 2021 and 2022 respectively.

96. Compared with forward-looking projections in the Climate Finance Delivery Plan, the aggregates in 2021 were 2–8 per cent above the low- to high-range scenario projections for the same year, and in 2022 were 19–26 per cent above the low- to high-range scenarios.

97. In terms of instruments, the use of loans and grants through public finance channels grew at similar rates, leading to the maintenance of the share of loans and grants at 69 and 28 per cent respectively in 2022. The remaining 3 per cent of public finance consisted of equity finance. The OECD does not provide aggregates of concessional and non-concessional loans owing to definitional differences in use by different climate finance providers. For bilateral finance, 79 per cent of loans over the 2016–2022 period were concessional. Forty-one per cent of loans from multilateral climate funds were classified as concessional, along with 23 per cent of MDB loans. The key leveraging mechanisms for mobilizing private finance in use by bilateral, MDB and multilateral climate funds are direct investment in companies or special purpose vehicles, guarantees and syndicated loans. However, there was a large increase in 2022 in investing in equity shares in collective investment vehicles.

98. **Oxfam's estimate of climate-specific net assistance**, consisting solely of grants and grant-equivalent estimates of concessional loans, witnessed a 40 per cent increase in 2022 compared with 2021, to reach a range of USD 28–35 billion, depending on the low or high climate-specific estimate of climate-related development finance. Adaptation finance is the largest sector, illustrating the higher proportion of grant finance for adaptation, at 43–46 per cent, with mitigation finance at 38–41 per cent, while cross-cutting finance takes a 14–20 per cent share, depending on whether the low- or high-end estimate is taken as the total amount.

99. Both bilateral and multilateral finance grew at the same rate, contributing evenly to the growth. 2022 saw decreases of 28-31 per cent from multilateral climate funds, as the GCF and other multilateral climate funds transitioned between replenishment and programming periods finance. However, grant and grant-equivalent estimates of MDB finance compensated for a decrease in other multilateral funds. In terms of instruments, grants accounted for 73–76 per cent of climate-specific net assistance in 2022 and the grant-equivalent estimate of concessional loans was 24–27 per cent, which represents a seven to eight percentage point increase from the 2021 figures. MDBs were a key driver in the greater share of concessional loan grant-equivalent estimates, at more than double the estimate in 2021, although bilateral concessional loan grant-equivalent estimates also increased by three quarters.

3.1.2 Updates on forward-looking information towards achieving the goal of mobilizing jointly USD 100 billion per year

100. As noted in chapter 2.1.2 above, new information available since the first report on progress is limited to the second biennial communications in accordance with Article 9, paragraph 5, of the Paris Agreement. The compilation and synthesis of the second biennial

communications[1] in accordance with Article 9, paragraph 5, of the Paris Agreement, which included information from 35 developed country Parties, was published in 2023.

101. Many developed country Parties in their second biennial communication in accordance with Article 9, paragraph 5, of the Paris Agreement reiterated their commitment to mobilizing USD 100 billion per year by 2020 through to 2025. Twenty-three Parties increased their projected public financial resources compared with previous commitments, with six aiming to at least double their contributions. Three Parties reiterated their existing commitments, indicating that they are on track to meet them, while four provided new quantitative information not previously presented. One Party reported a decrease in projected financial resources.

102. Eight Parties announced or reiterated their intention to at least double their climate finance commitments. For example, Canada plans to increase its contributions from 2.65 billion Canadian dollars to 5.3 billion Canadian dollars over five years from April 2021. Finland aims to nearly double its international climate finance, pending parliamentary approval. Ireland pledged at COP 26 to double financial support to EUR 255 million annually by 2025. New Zealand committed at least 1.3 billion New Zealand dollars for 2022–2025, with 50 per cent allocated to adaptation.

103. Multi-year budgetary allocations reported by Parties in their second biennial communications in accordance with Article 9, paragraph 5, of the Paris Agreement include four-year public sector plans. France intends to provide EUR 6 billion annually for 2021–2025, Germany plans to increase the provision of climate finance to EUR 6 billion by 2025 and Japan reported its commitment of 6.5 trillion Japanese yen for 2021–2025, with an additional USD 10 billion announced at COP 26, and Lithuania intend to allocate EUR 8 million for 2022–2025. Finland plans to provide climate finance through rolling three-year frameworks, whereas Switzerland will provide and mobilize USD 450–600 million per year from a variety of sources and instruments until 2025 and intends to provide at least intends to provide at least 400 million Swiss francs in public climate finance annually by 2024, and Italy's Climate Fund estimates that it will provide EUR 2.6 billion for 2022–2025.

3.2 Trends in progress towards achieving the goal of mobilizing jointly USD 100 billion per year

104. This section provides an overview of available qualitative and quantitative information and trends in the needs of developing countries. First, this section presents an overview of quantitative information on the needs of developing countries from the second NDR (UNFCCC SCF 2024a). Chapter 3.2.2 provides an overview of available information of how the needs of developing countries have been addressed, both from the perspectives of developing countries and developed countries, and chapter 3.2.3 provides an analysis of any linkages between trends in finance flows and addressing the needs and priorities.

3.2.1 Current status and trends in the needs of developing countries

Updates in information on needs derived from national reports

105. Table 3.1 provides an overview of the expressed and costed needs in different types of national report as reported in the second NDR. Not all developing country Parties express needs in their reports; for example, of 154 NDCs analysed, 145 included information on needs. Similarly, not all needs are costed. For 5,760 identified needs in NDCs, 2,753 were costed by 98 Parties. In terms of costed needs information, some Parties provided a range of estimates for a given activity or for the overall cost of implementing climate action. In addition, most of the costed needs information are cumulative amounts for a given activity or overall climate action plan rather than annual amounts.

1) Available at https://unfccc.int/documents/631160.

Table 3.1

Overview of number of expressed and costed needs by report type in the second report on the determination of the needs of developing country Parties related to implementing the Convention and the Paris Agreement)

Report type	Total number of needs	Total number of Parties reporting needs	Number of costed needs	Number of Parties providing costed needs	Cumulative amounts in billions of USD
Adaptation communications	1 593	43	673	29	1 772–2 400
BURs	3 097	96	835	55	30 050–31 775
LT-LEDS	1 538	28	745	19	2 335–2 479
NAPs	4 317	52	1 577	35	842–844
NCs	7 863	145	1 039	57	28 317–28 671
NDCs	5 760	142	2 753	98	5 036–6 876
TAPs	2 765	47	1 708	39	45–45
TNAs	2 760	97	516	47	799–804

Source: UNFCCC SCF 2024a.

[47]

106. As different report types serve different purposes, the relevant time frames of information across report types may vary. For example, it is understood that LT-LEDS focus on longer time frames, up to 2050, given their purpose, while NDCs have 5- or 10-year time frames, and BURs and NCs often include needs in the short term by Parties seeking international support for specific activities and projects.

107. In terms of the information on needs, few needs are specified explicitly for the 2020–2025 time frame as it relates to the USD 100 billion goal. For NDCs, needs are most commonly expressed in 2021–2030 (28 per cent) or 2020–2030 (25 per cent) time frames. As more NDCs have been updated, some needs are now also reported in the 2022–2030 time frame (9 per cent). In terms of costed needs in NDCs, 25–28 per cent of the amounts are in the 2021–2030 period, 21–37 per cent in the 2015–2030 period and 21–28 per cent in the 2020–2030 period. The remainder are typically reported up to 2030 from 2018 or 2023.

108. The range of time frames is important for understanding how costed needs, which are predominantly expressed cumulatively, may be understood. The first NDR identified costed needs from 78 Parties as at 31 May 2021 amounting to USD 5.8–5.9 trillion up until 2030. Accounting for a similar time frame out to 2030, for comparative purposes, the costed needs from the latest NDCs amount to USD 5.012–6.852 trillion cumulatively out to 2030. As in the first NDR, the starting points for costed needs out to 2030 in NDCs vary significantly with some indicating a 2015–2030 timeframe, and others a 2020-2030 timeframe. Therefore, an annualized cost estimate across different time frames ending by 2030 of implementing these costed needs by 98 countries are in the range of USD 455–584 billion per year.

109. Figure 3.4 provides an overview of how costed needs information in NDCs relates to whether actions are expressed as conditional or unconditional actions and whether sources of finance are identified between

international public and private and domestic public and private sources. Out of the total NDC costed needs by 98 Parties, USD 2.4 trillion cumulative is for conditional actions, representing 48 per cent. Unconditional actions constitute 17 per cent of the total, amounting to USD 882 billion cumulatively. Notably, amounts that were unspecified account for a substantial proportion, representing 35 per cent of the total finance needs, equivalent to USD 1.75 trillion cumulatively.

110. In terms of sources of finance, most costed needs do not specify the sources (47 per cent, USD 2.4 trillion), while 44 per cent (USD 2.2 trillion) state that the finance would come from international and domestic sources, both public and private. Eight per cent (USD 402 billion) is explicitly stated to be needed from international sources, both public or private, and 1 per cent is identified to derive from domestic sources.

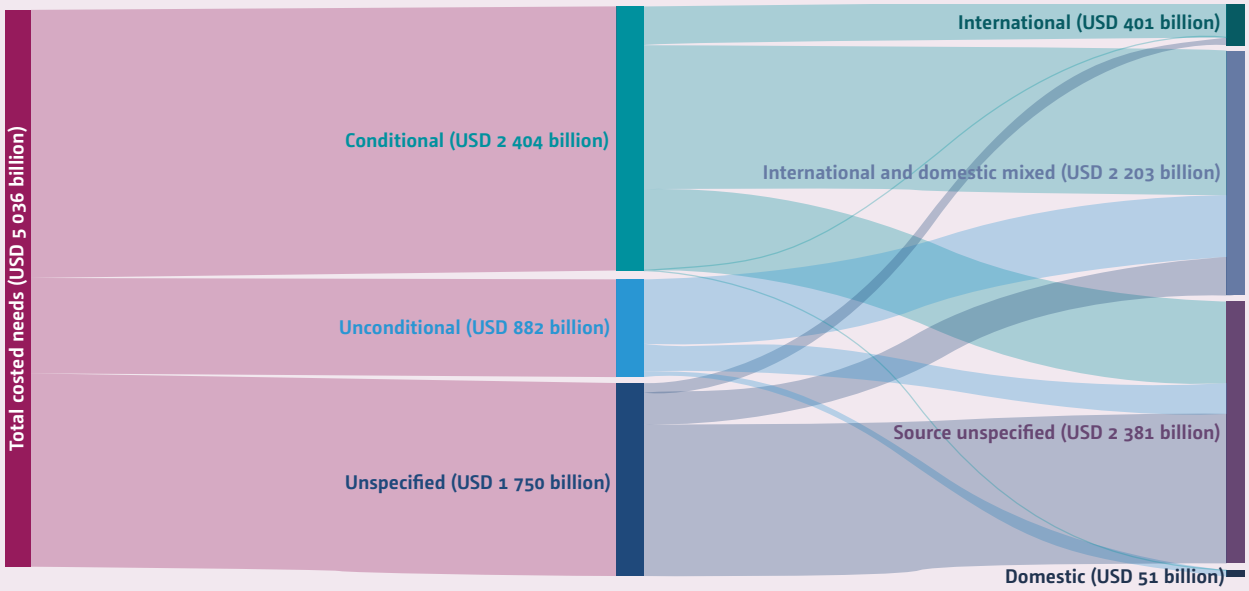
111. When the distribution of the number of needs by thematic area is considered, developing countries provided more information on their needs related to adaptation than the other areas across the report types. This pertained not only to NAPs (96 per cent) and adaptation communications (96 per cent) but also to NDCs (46 per cent), NCs (48 per cent), TAPs (59 per cent) and TNAs (51 per cent). A larger proportion of mitigation needs are reported in BURs (67 per cent) and LT-LEDS (57 per cent).

112. In terms of costed needs, most costed estimates in NDCs are for mitigation efforts, at 58–79 per cent depending on the low to high range of estimates, while adaptation needs represent 16–17 per cent of costed estimates. In NCs, adaptation communications, NAPs and TNAs, adaptation costs are greater than mitigation needs, while mitigation needs are the majority in BURs, LT-LEDS and TAPs. Further information on the sectors is provided in chapter 3.2.2 below.

113. In terms of geographical distribution, the highest number of reported needs is in the Africa region for adaptation communications, BURs, NCs, NDCs, and TNAs, while Asia has the highest number for LT- LEDS, NAPs, and TAPs. For NDCs, Africa is also the region with the most costed needs by number, but in terms of financial amounts the aggregates amount to less than those identified for Asia, which are 65–71 per cent of the totals, compared with 28–33 per cent for Africa. Forty-five per cent of expressed needs and 5–16 per cent of costed needs in NDCs are from the LDCs, while SIDS account for 25 per cent of expressed needs in NDCs and 1 per cent of costed needs.

Figure 3.4

Costed needs identified in nationally determined contributions by conditionality and sources of finance



Source: UNFCCC SCF 2024a.

Note: the lower-range estimates of costed needs in NDCs are used.

Updates in information on needs derived from global assessments of needs

114. The second NDR also compiles information and data on the needs of developing countries from regional and global reports where further detailed information is available. Sources of information on mitigation needs include:

- The Working Group III to the AR6 on investment assessed available studies for the energy, energy efficiency, transport and AFOLU sectors and arrived at an indicative range of annual investment needs globally of USD 2.7–4.5 trillion from 2020 to 2030 (Kreibiehl et al., 2022). The **IEA** World Energy Outlook 2023 estimates that global energy investment needs for emerging markets and developing economies of USD 2.5 trillion, of which USD 2.3 trillion will be for clean energy investments, until 2030, while an IEA report on reducing the cost of capital in clean energy further estimated average annual total energy sector investments needs of USD 2.9 trillion (of which USD 2.7 trillion is for clean energy) over 2031–2035. Around half of total clean energy investments in developing countries will be for the power sector, including low-carbon generation, grids and storage. Electrification and efficiency investments in other sectors make up around one third, with the rest allocated towards low-emission fuels and CCUS technologies (IEA, 2024a).
- The Independent High-Level Expert Group on Climate Finance (IHLEG) report provides an estimate of aggregate climate and nature related investment needs of emerging markets and developing economies excluding China by 2030, to keep in line with the 1.5°C global temperature goal. It arrives at annual investment requirements of USD 2.4 trillion by 2030 (estimated 6.5% of GDP), of which USD 1.5 trillion annually is required for the transformation of energy systems. This assessment covers investments in the power systems covering zero carbon generation, transmission and distribution and storage and early coal phase out, as well as end-use sectors transport, industry, buildings and green hydrogen value chains. Just transition investments of USD 75 billion annually are not included in the mitigation assessment.

115. Sources of information on needs related to adaptation and resilience include:

- The IPCC AR6 report compared available evidence of annual developing countries annual adaptation costs, and reported a median estimate of USD 127 billion (USD 15–411 billion) for 2030 and USD 295 billion (USD 47–1088 billion) for 2050.
- The UNEP Adaptation Gap report update in 2023 arrives at a central range for annual adaptation costs of developing countries of USD 215–387 billion in 2030, through two methodological approaches. The lower-bound of the range is the median estimate derived from an aggregation of available sectoral modelling studies, while the upper bound is derived from an analysis and extrapolation of 85 available NDCs and NAPs as at July 2023, to all developing countries.
- The IHLEG report included assessments of adaptation, loss and damage and natural capital and sustainable agriculture spending needs for emerging markets and developing economies excluding China by 2030. Of the total USD 2.4 trillion per year by 2030, adaptation and resilience investments are assessed at USD 250 billion, while another USD 300 billion are assessed for coping with loss and damage and USD 300 billion in relation to natural capital spending and sustainable agriculture.

116. In terms of sources of finance needed to address needs, the IEA projects that under its NZE scenario investment decisions made by corporates in EMDEs will deliver approximately 43 per cent of annual clean energy investments needs in 2030 and maintaining similar levels in 2035, while investment decisions made by governments will account for 35 per cent in 2030 and 33 per cent in 2035, with households accounting for the remaining 22 per cent (2030) and 24 per cent (2035). Financing for these investments in EMDEs will come mainly from commercial sources of capital (75 per cent in 2030 and 76 per cent in 2035), followed by public sources with DFI financing (25 per cent in 2030 and 24 per cent in 2035) providing the remainder. (IEA World Energy Outlook 2024 forthcoming).

117. In addition, in its dedicated report for clean energy finance in developing economies (IEA 2024), the agency estimated that to mobilize the sizeable amounts of annual private finance over the 2026–30 and 2031–35 periods respectively, that between USD 89 billion to USD 111 billion (about 10 per cent of the volume to be mobilized) – would need to be provided in dedicated public concessional finance. By region, concessional public funding needs for mobilizing private investments are highest in Africa (USD 38–48 billion, 43 per cent), followed by India and other Asia (USD 18–23 billion,

20–21 per cent), Latin America (USD 13–15 billion, 15–14 per cent), Middle East and Eurasia (USD 12–14 billion, 13 per cent) and South-East Asia (USD 8–11 billion, 9–10 per cent).

118. The IHLEG report estimates that. of the USD 2.4 billion total investment requirements that, next to mitigation, include adaptation, loss and damage, and natural capital and sustainable agriculture spending, the report estimates that around USD 1.4 billion annually would be covered through domestic resource mobilization (public and private) and the remaining USD 1 trillion would come from external sources. Bilateral and innovative concessional finance was assessed to contribute USD 150–200 billion, MDBs to contribute USD 250–300 billion and private finance to contribute USD 500–600 billion. The report noted that more than half of that private finance would be directly or indirectly mobilized through MDBs, other DFIs and bilateral finance. Overall, the report estimates that incremental spending above current levels would constitute USD 1.8 trillion of the aggregate USD 2.4 trillion climate- and nature-related investment needs per year by 2030 in emerging markets and developing economies (IHLEG et al., 2023).

3.2.2 Current status and trends in the needs of developing countries

119. As noted in chapter 3.2.1 above, on an annual basis the needs for mitigation and adaptation in developing countries are significant. While the USD 100 billion per year goal was never meant to meet the totality of the needs of developing countries, it is relevant to assess trends in how climate finance provided and mobilized by developed countries is responding to the priorities expressed.

120. As noted in the first report on progress, no dedicated source of information is available for this analysis that uses a common time frame for when needs are expressed and finance should be mobilized to reach the goal. In addition, the data for a robust quantitative assessment on addressing needs, for example based on measuring per unit outcomes of financing such as megawatt capacity of renewable energy deployed or kilometres of coastline made resilient and their associated costs, are not yet available. The first report on progress adopted an approach, updated below, that compares the distribution of climate finance flows against the needs and priorities identified in the NDR, which can be relevant to assessing whether the climate finance provided and mobilized is proportionally addressing the needs expressed by developing countries. This is outlined below in terms of the proportional distribution by theme, sector, sources and instruments, and geographical region of the finance flows compared with the needs in the NDR. The distributional analysis is a qualitative interpretation of whether expressed needs are being addressed owing to the disparity in scale, the differences in coverage and scope of the needs reported versus flows, as well as the differing approaches to measuring needs (based on the number of needs expressed or costed by various methods) versus those approaches in measuring and quantifying climate finance flows.

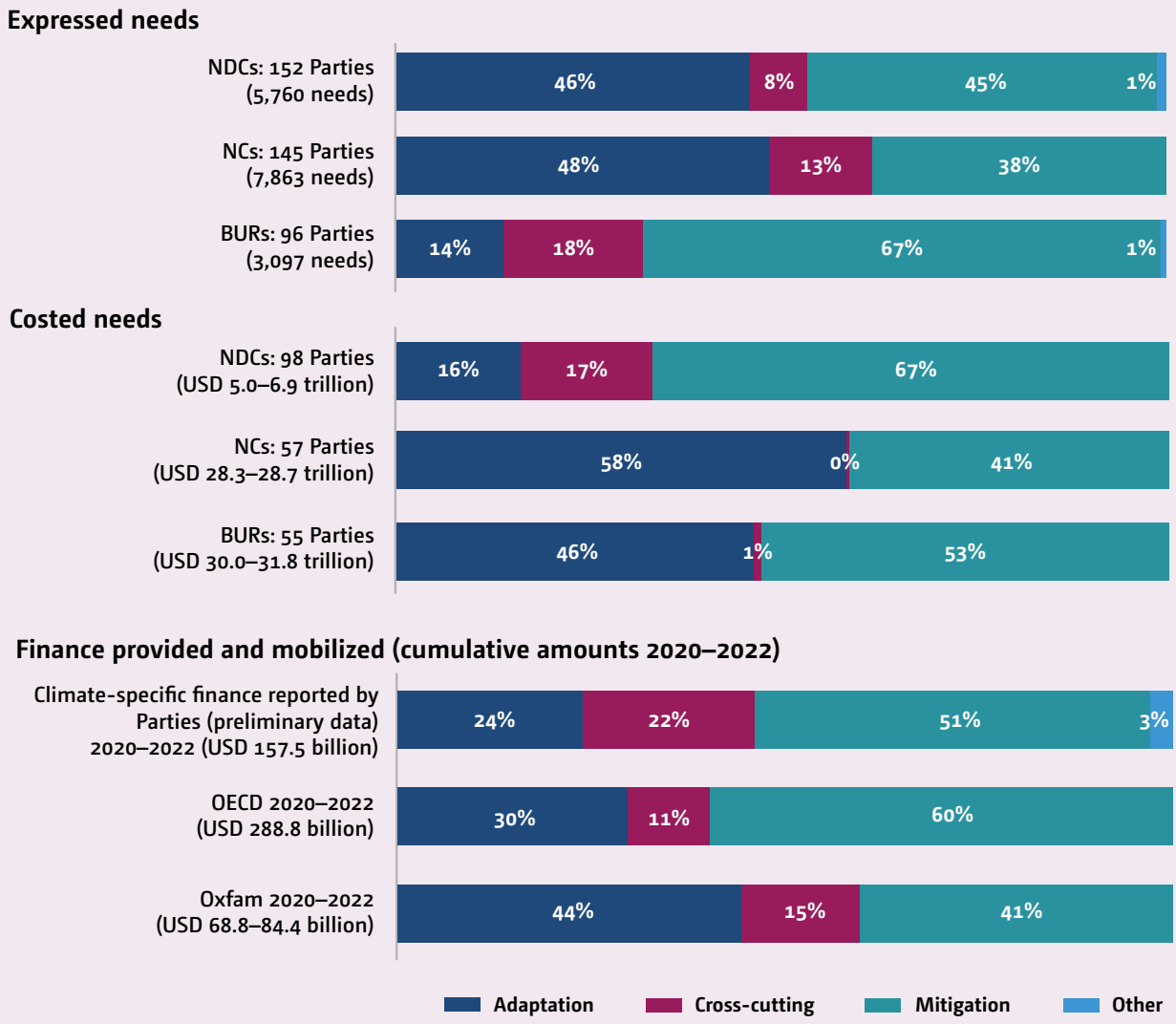
Thematic split between mitigation and adaptation

121. Although there has been a trend in recent years of scaling up adaptation finance, the thematic balance of finance flows is not aligned proportionally with the needs expressed by developing countries. In terms of the proportion of number of needs expressed, adaptation needs represent 48 per cent of the total number of needs identified in 145 NCs, 46 per cent in 142 NDCs and 14 per cent in 96 BURs. In NDCs, 16 per cent of the costed needs were identified as being for adaptation, while in NCs this figure was 58 per cent and in BURs it was 46 per cent reported by 98, 57 and 55 developing country Parties respectively. Mitigation needs constitute most of the remainder, although cross-cutting needs play a relatively larger role in needs expressed in BURs and costed needs in NDCs (see figure 3.5).

2. In comparison, the latest available data on finance flows from the sources of information show that although adaptation finance has grown strongly in recent years, mitigation finance remains predominant. The share of adaptation in climate-specific finance reported in the BR5s for 2020 and preliminary estimates for 2021 and 2022 are 24 per cent. The corresponding shares in the OECD report series on climate finance and the USD 100 billion goal and Oxfam reports are 30 and 44 per cent respectively. Compared with the first report on progress, adaptation finance has a lower share overall as finance has scaled up, according to the preliminary estimates by Parties (from 28 to 24 per cent) and the OECD report series on climate finance and the USD 100 billion goal (from 34 to 30 per cent), but has increased its share in Oxfam's estimates (from 31 to 44 per cent). Owing to accounting for grants and grant equivalents of concessional loans and equity instruments, Oxfam's estimates result in a larger proportion of adaptation finance, as adaptation activities typically receive a greater amount of grant financing than mitigation activities.

Figure 3.5

Thematic distribution of needs and finance provided and mobilized



Sources: UNFCCC SCF 2024a, 2024b OECD 2024 and Oxfam 2024.

Note: The time frames on expressed and costed needs vary in different report types. For example, for costed needs in NDCs time frames start from 2015, 2021 or 2022 up to 2030; in NCs from 2021 or 2023 up to 2060, and in BURs from 2021 or 2023 up to 2060. or costed needs and Oxfam data, the mid-points of ranges are used to calculated thematic shares.

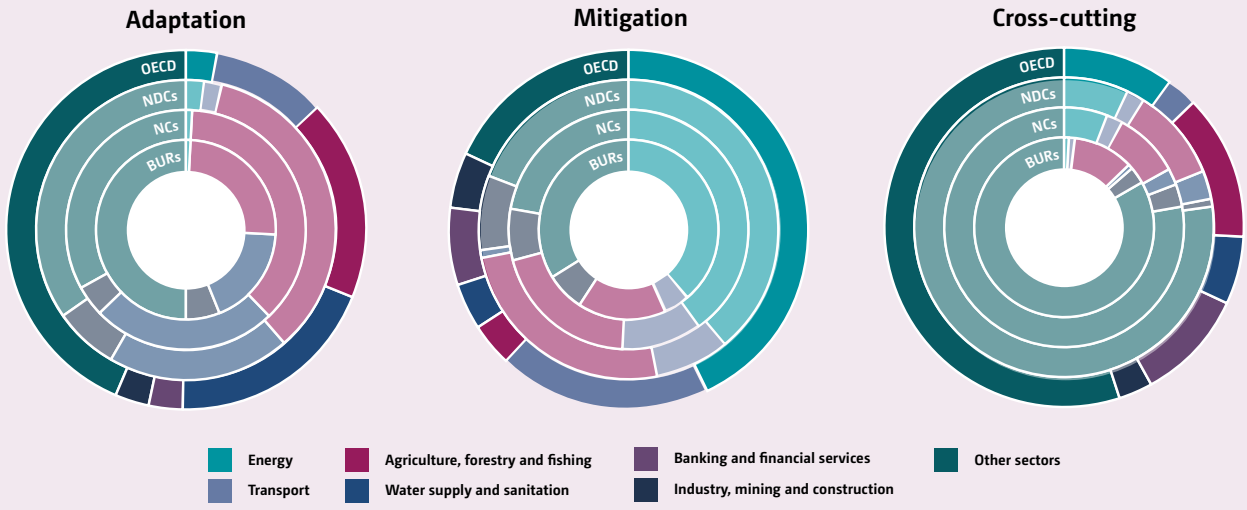
Sectors

123. Sector-level distributions of climate finance flows across the sources of information are limited to the analysis in the OECD report series on climate finance and the USD 100 billion goal, which reports sector-level data for climate finance by theme (see figure 3.6). For adaptation, activities are spread across a variety of sectors. Needs are most pronounced in the agriculture and forestry sector (25–37 per cent in the BURs, NCs and NDCs) and water supply and sanitation sector (18–25 per cent), and most finance provided and mobilized from 2016 to 2022 flowed to these sectors (18 and 19 per cent respectively). However, more finance has been directed at the transport sector (10 per cent) than specified in the needs (1–2 per cent).

124. For mitigation, energy and transport sector finance amounted to 62 per cent of total climate finance provided and mobilized from 2016 to 2022. While these sectors are prominent in reported mitigation needs (at 44–51 per cent), the agriculture and forestry sector accounts for 16–25 per cent of needs but 4 per cent of finance flows. Finance is also reported to flow to the banking and financial services sectors (7 per cent), although this is not highlighted as a need; this illustrates the differences in reporting how finance for climate action is often channeled through financial intermediaries in developing countries compared to reporting on needs in the real economy.

Figure 3.6

Sector distribution of needs expressed and climate finance provided and mobilized



Sources: UNFCCC SCF 2024a and OECD 2024.

Note: dark shaded colours represent finance provided and mobilized in given sectors, while light shaded colours represent expressed needs in given sectors. Sectors have been harmonized to the sector classifications used in the OECD report series on climate finance and the USD 100 billion goal for comparative purposes as no further granularity is available on finance flows. .

Sources and instruments

125. More concessional public finance is often stated by developing countries as being needed for addressing capacity gaps and adaptation actions, and for developing countries with high debt burdens. As noted in the second NDR, the IEA reports sources of information identifying approximately USD 90–110 billion in concessional finance needed from all sources in developing countries from 2026 to 2035 in order to mobilize USD 1.2–2.6 trillion in private finance for mitigation investments in the energy sector (including power, buildings and transport). In total, public and DFI finance provide 25 per cent of the clean energy investment needed in developing and emerging economies, compared with 75 per cent from commercial sources of capital.

126. IHLEG (2023) assumed that public concessional finance of USD 150–200 billion by 2030, MDB lending at USD 250–300 billion and USD 500–600 billion from private finance sources would support developing countries to meet mitigation, adaptation, and loss and damage needs. This therefore constitutes an approximately 45/55 per cent split between public and private sources and within public finance, approximately 40/60 per cent split for bilateral sources and MDBs.

127. Given that the accounting scope of sources of information outlined in chapter 3.1 above is limited to attributed finance from developed countries to developing countries, it is not comparable to needs estimates broken down by potential sources and concessionality of financial instruments. The latest data available from the OECD report on climate finance and the USD 100 billion goal series show a greater share of private finance mobilized in aggregate than in previous years, at 19 per cent, compared with 16 per cent in 2020 and 2021. For public finance, MDB climate finance attributed to developed countries constituted 51 per cent of total public finance in 2022 (USD 46.9 billion) and bilateral finance provided 45 per cent, which is proportionately aligned with the proportion of the higher range in the needs estimates by IHELG.

128. The data gathered from Parties on climate finance in 2021–2022 to support the preparation of the sixth BA, is preliminary in nature and therefore not sufficiently granular to provide an analysis of the instruments used. In addition, as support provided through multilateral channels is mostly limited to inflows from Parties to institutions, rather than outflows to projects in developing countries, and finance reported as mobilized is limited mostly to finance mobilized by bilateral institutions and agencies and not multilateral institutions, it is an incomplete view to assess proportionately whether public and private sources match the estimates based on the scenarios and studies referenced in the second NDR. Nevertheless, preliminary estimates show that 66 per cent of climate-specific finance is reported as through bilateral, regional or other channels, and 17 per cent respectively is reported as through multilateral channels and finance mobilized by public interventions.

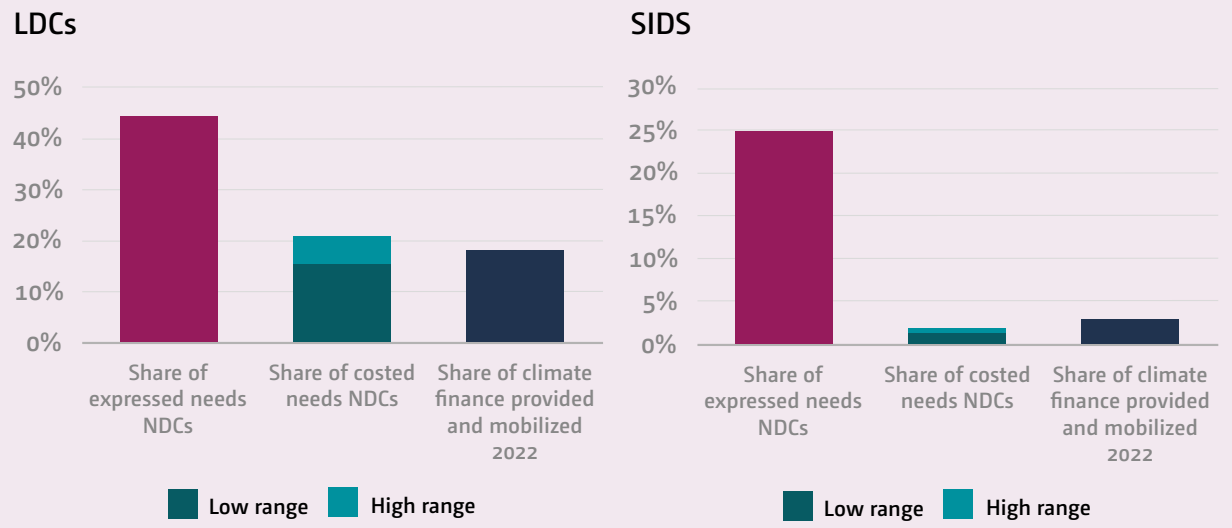
Geographical distribution

129. There is a lack of data on regional distributions of climate finance to developing countries, which hinders an analysis of how finance is flowing to the regions that have expressed needs. Owing to the preliminary nature of the data gathered from Parties on climate finance in 2021–2022 to support the preparation of the sixth BA, it is not possible to make an analysis by region. The OECD report series on climate finance and the USD 100 billion goal did not include a regional breakdown in the 2024 report but instead includes an analysis by income group, and the Oxfam Climate Finance Shadow Report series does not include a regional breakdown. According to the sixth BA, in 2021–2022, most of the finance from multilateral climate funds amounting to USD 3.7 billion per year on average primarily went to Latin American and the Caribbean (31 per cent), Africa (25 per cent) and Asia (22 per cent). MDB finance amounting to USD 49 billion per year on average was directed to Africa and Asia (33 and 32 per cent) while most private finance mobilized amounting to USD 18.2 billion per year on average went to Latin America and the Caribbean (35 per cent), Asia (32 per cent) and Africa (20 per cent).

130. Where information is available, it is in relation to finance provided and mobilized for the LDCs and SIDS (see figure 3.7). The OECD report series on climate finance and the USD 100 billion goal shows increasing shares of climate finance provided and mobilized to the LDCs and SIDS, from 17 and 2 per cent respectively on average over 2016–2022 to 18 per cent and 3 per cent respectively in 2022 alone, amounting to USD 21.2 billion and USD 3.2 billion respectively. This compares with 45 LDCs comprising 45 per cent of expressed needs in NDCs and 16–21 per cent of costed needs, demonstrating that while finance flows are proportionate to costed needs, less finance is flowing proportionately to the LDCs than expressed needs. Thirty-seven SIDS account for 25 per cent of expressed needs in NDCs and 1 per cent of costed needs, demonstrating that more finance is flowing proportionately to SIDS in terms of costed needs but less in terms of expressed needs, while noting the significant capacity constraints of LDCs and SIDS including to cost their needs.

Figure 3.7

Distribution of needs and finance flows to the least developed countries and small island developing States



3.3 Trends in meaningful mitigation actions and transparency on implementation

131. This section provides an overview of available qualitative and quantitative information and trends in meaningful mitigation actions and transparency on implementation. First, this section presents the status of global emissions and the change in current policy scenarios over time. Then the section discusses the relevant improvement in mitigation ambition since 2010 and particularly since the previous version of this report. Information on further specific mitigation actions, including policies, investment and action, is also included. Finally, the section includes an overview of transparency on implementation in relation to climate action and support and any improvements noted.

3.3.1 Current status and trends in mitigation actions

Greenhouse gas emissions

132. **Looking back.** Since 2020, the development of GHG emissions has been strongly influenced by the coronavirus disease 2019 pandemic and the subsequent recovery. The development of emissions between 2020 and 2022 needs to be seen in the context of this situation and assessed in comparison with pre-pandemic levels and trends. In the context of meaningful mitigation action, the latest NDC synthesis report estimated that GHG emissions (excluding LULUCF) increased from 47.4 to 52.8 Gt CO2 eq between 2010 and 2021 (UNFCCC, 2023b). The coronavirus disease 2019 pandemic led to an unprecedented drop in GHG emissions in 2020, with emissions decreasing by 3.6 per cent compared with 2019. However, as restrictions were gradually removed, emissions in 2021 increased by 4.2 per cent to just above 2019 levels. In the decade before the pandemic, GHG emissions grew at an average rate of 1.5 per cent annually, showing a much slower growth than in the 2000s (2.2 per cent).

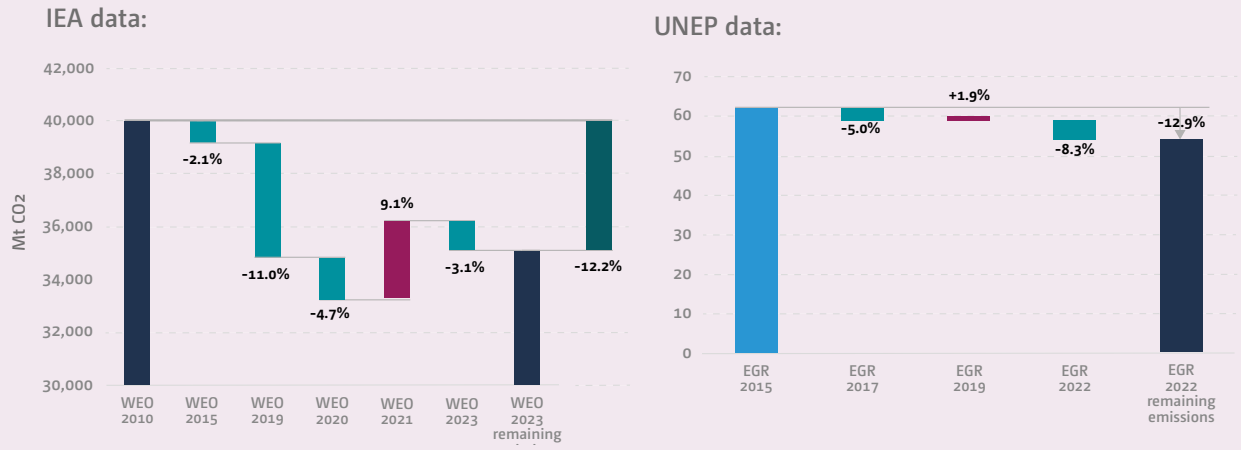
133. According to the UNEP Emissions Gap Report series, total GHG emissions (including LULUCF) reached 57.4 Gt CO2 eq in 2022, growing by 1 per cent compared with 2021 and surpassing the 2019 level by 1.7 per cent (UNEP, 2023b). However, the latest UNEP Emissions Gap Report concluded that emission growth has slowed. Compared with growth rates observed in the 2000s (2.2 per cent per year), average growth between 2010 and 2019 was 0.9 per cent, showing a clear deceleration.

134. **Looking forward.** As described in chapter 2 above, the development of GHG emission estimates that include implemented policies can serve as an indication of the level of implementation. The UNEP Emissions Gap Report series has included a current policy scenario since 2015, covering all emissions, including LULUCF. In the 2015 edition, UNEP estimated that global emissions would increase to 62 Gt CO2 eq by 2030, considering only the policies in place by 2012 (UNEP, 2015). Each edition takes into account the most recent policies implemented. The 2022 edition finally looks at policies implemented or adopted up to November 2021. While there are individual years where the projected emissions in 2030 are higher than in previous assessments, the overall trend shows decreasing emissions by 2030. In the 2022 edition, UNEP estimates that emissions under the current policy scenario will be 54 Gt CO2 eq by 2030, a decrease of emissions of 12.9 per cent between the 2015 and 2022 assessments (UNEP, 2022). This means that policies implemented between 2012 and 2021 have contributed to reducing emissions by up to 8 Gt CO2 eq by 2030.

135. The IEA also publishes such scenarios each year in the context of its World Energy Outlook series, covering only energy-related emissions. In its 2010 edition the IEA estimated energy-related emissions from fuel under current policies to reach 40 Gt CO2 by 2030 (IEA, 2010). Over the years, the emissions estimate based on implemented policies decreased in most years, with emissions in 2030 resulting from implemented policies being 12.2 per cent lower in the 2023 edition compared with the 2010 edition (IEA, 2023). Although this does not cover all emissions, the results confirm the trend seen in the UNEP Emission Gap Report series.

Figure 3.8

Comparison of current policy scenario estimates for 2030 from the International Energy Agency World Energy Outlook series (left) and the United Nations Environment Programme Emissions Gap Report series (right) over time



Note: Information for the left-hand graph is from the IEA World Energy Outlook series of the respective years. Reports were selected from 2010 in five-year intervals plus the latest report (2023) and the 2019 and 2021 reports to reflect changes pre- and post-pandemic. Information for the right-hand graph is from the UNEP Emissions Gap Report series. Reports were selected from 2015 in two-year intervals, using 2022 instead of 2021, as it is the most recent report with comparable data. Owing to a methodology change, data from the 2023 report are not included. Data for 2022 are adjusted based on table 4.2 of the report to enable comparison with previous reports. Scenario emissions for the 2015 estimate are taken from the 2019 edition, where data were adjusted to global warming potentials from the AR4.

Mitigation ambition

136. **NDCs.** Since the adoption of the Paris Agreement, the main avenue for Parties to communicate their mitigation ambitions are the NDCs. Initial submissions in 2015 communicated INDCs, followed by the first round of the NDCs and a further round of new or updated NDCs.

137. The communication of mitigation actions and targets by Parties over the years indicate an improvement on the aggregate effect of Parties' mitigation efforts. While there is no official calculation of the aggregate effect of both quantified economy-wide emission reduction targets by Annex I Parties and NAMAs by non-Annex I Parties, the latest NDC synthesis report includes a comparison of the aggregate effect of INDCs with the most recent NDC submissions.

138. In total, 168 NDCs were submitted, representing 195

Parties to the Paris Agreement, covering 94.9 per cent of the total global emissions in 2019 (without LULUCF). A total of 59 Parties communicated new or updated NDCs between 12 October 2021 and 25 September 2023, the respective cut-off dates for submissions to be included in the NDC synthesis reports that were the basis for the previous analysis and this report respectively. NDCs submitted by 25 September 2023 covered 94.9 per cent of global emissions in 2019, compared with 93.1 per cent covered by NDCs submitted up to 12 October 2021 (UNFCCC, 2021 2023b).

139. The synthesis of NDCs submitted as at 25 September 2023 found an improvement in total expected GHG emission levels[2] in 2025 (without LULUCF) of all Parties to the Paris Agreement of 4.6 per cent (51.6 Gt CO2 eq) compared with the INDCs as at 4 April 2016 (54.0 Gt CO2 eq) and an improvement of 1.3 per cent (0.7 Gt CO2 eq) compared with the 2021 NDC synthesis report.[3] For 2030, the synthesis report found an improvement in total expected GHG emission levels (without LULUCF) of 11.4 per cent (6.2 Gt CO2 eq) compared with the INDCs and of 4.9 per cent (2.5 Gt CO2 eq) compared with the 2021 NDC synthesis report (UNFCCC, 2021, 2023b).

140. The total GHG emission level resulting from the implementation of the unconditional elements of the NDCs is projected to be at most 54.8 Gt CO2 eq in 2025, 15.7 per cent higher than in 2010 (47.4 Gt CO2 eq). Including all conditional elements, the total GHG emission level in 2030 is projected to be as low as 51.6 Gt CO2 eq in 2025, 9.0 per cent higher than in 2010. For 2030, emissions are projected to be at most 54.8 Gt CO2 eq, 15.7 per cent above the 2010 emission level. Including conditional actions, emissions in 2030 are estimated to be as low as 48.3 Gt CO2 eq, only 2.0 per cent above the 2010 level, indicating that peaking of global emissions before 2030 is more likely than in the previous analysis (see figure 3.9).

141. The NDCs of 82 per cent of Parties are unconditional, at least in part, with many including more ambitious conditional elements. Compared with their previous NDCs, 15 per cent more Parties included unconditional elements in their new or updated NDCs, indicating an increase in ambition. 142. The UNEP Emissions Gap Report series also analysed the global effects of INDCs and NDCs since 2010 and identified the gap to the 2 °C and 1.5 °C compatible pathways. The assessment came to similar conclusions as the NDC synthesis report. The ambition represented in the NDCs has improved over time and emission levels in 2030 (including LULUCF) estimated in the 2020 edition resulting from unconditional elements in NDCs increased by up to 19.8 per cent (8.9 Gt CO2 eq) compared with the 2010 level, while emissions including the conditional elements of NDCs were estimated to increase by 1.8 per cent compared with the 2010 level. The 2023 edition of the report estimated that emissions from unconditional elements would result in an increase of 10.5 per cent above the 2010 level, while emissions including conditional actions would result in a drop of 3.1 per cent (1.6 Gt CO2 eq) compared with the 2010 level (see figure 3.10).

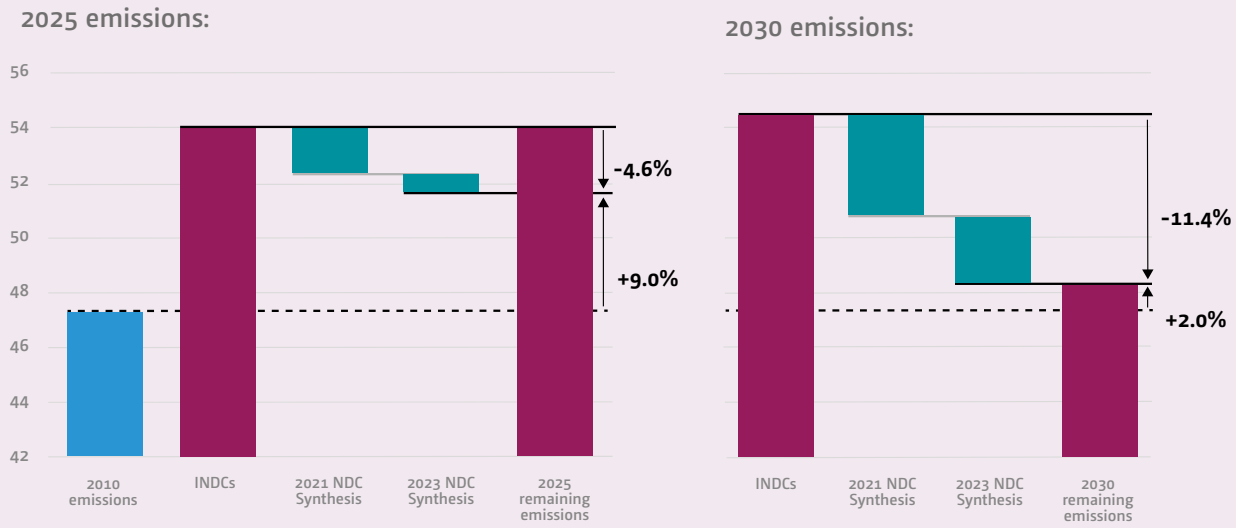
143. According to the latest NDC synthesis report, 94 per cent of Parties provided quantified mitigation targets, and 80 per cent communicated economy-wide targets (UNFCCC, 2023b). An increasing number of Parties are moving to absolute emission reduction targets in their new or updated NDCs.

2) Including the full implementation of unconditional and conditional elements of NDCs.

3) Based on the addendum to the 2021 NDC synthesis report available at https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/ndc-synthesis-report/ndc-synthesis-report

Figure 3.9

Aggregate effect of nationally determined contributions up to September 2023 compared with intended nationally determined contributions in 2016 and nationally determined contributions up to the end of 2021 on global emission levels in 2025 and 2030 (including conditional actions)



Note: data are based on the underlying information from figure 8 of the NDC synthesis reports (UNFCCC, 2021 and 2023b)

Figure 3.10

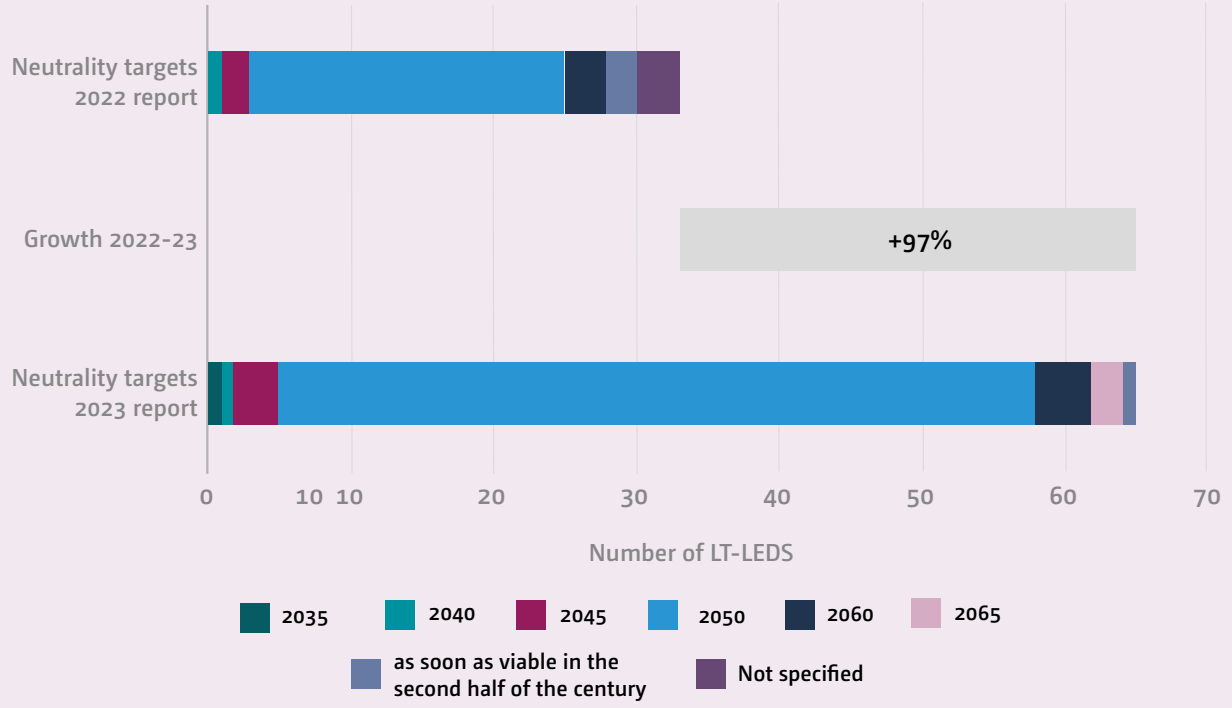
Aggregate effect of nationally determined contributions in the United Nations Environment Programme Emissions Gap Report series on global emission levels versus the 2010 baseline

Note: data are based on information in the UNEP Emissions Gap Report series. Unconditional and conditional scenario results from the 2020 report are compared with 2010 historical data from the 2012 report; 2023 scenarios are compared with the 2010 values from the same report, as methodologies changed between the 2021 and 2022 editions, including a change to global warming potentials from the AR6.

146. **NAMAs.** COP 16 decided to establish a registry[4] to record NAMAs seeking international support and to facilitate the matching of financial, technology and capacity-building support with those actions. The secretariat delivers an annual report to the COP on the operation of the NAMA registry.[5] As at 30 September 2023, the registry contained 194 entries seeking support for preparation, implementation or recognition. There was no change in the number of non-Annex I Parties that have access to the registry over this period. Between 1 October 2021 and 31 July 2024, there were three new NAMAs registered for recognition[6] and three seeking support, of which five were registered after the deadline for the NAMA synthesis report.[7]

Figure 3.11

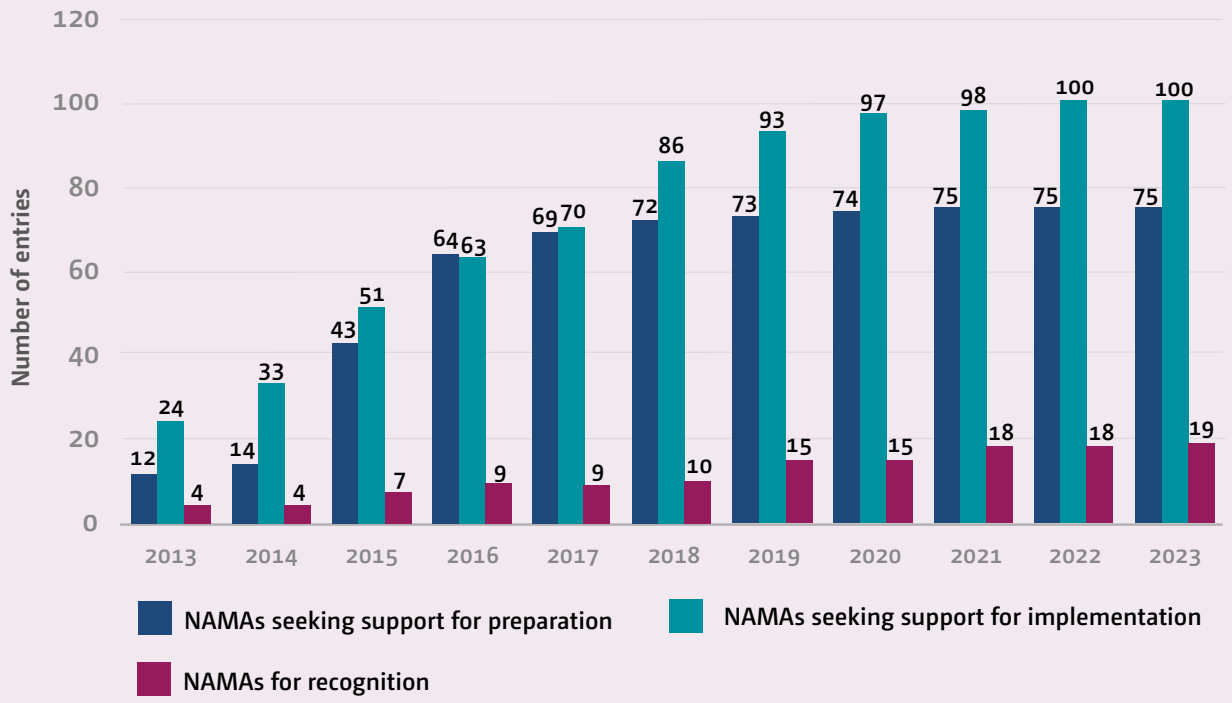
Comparison of carbon neutrality and other zero emission targets in the long-term low-emission development strategy synthesis reports, 2022 and 2023



4) https://www4.unfccc.int/sites/PublicNAMA/SitePages/Home.aspx.
5) FCCC/CP/2023/INF.1.
6) From Chile, Costa Rica and Panama.
7) Two from Costa Rica and one from Suriname.

Figure 3.12

Number of nationally appropriate mitigation action entries in the registry by type from 2013 to 2023



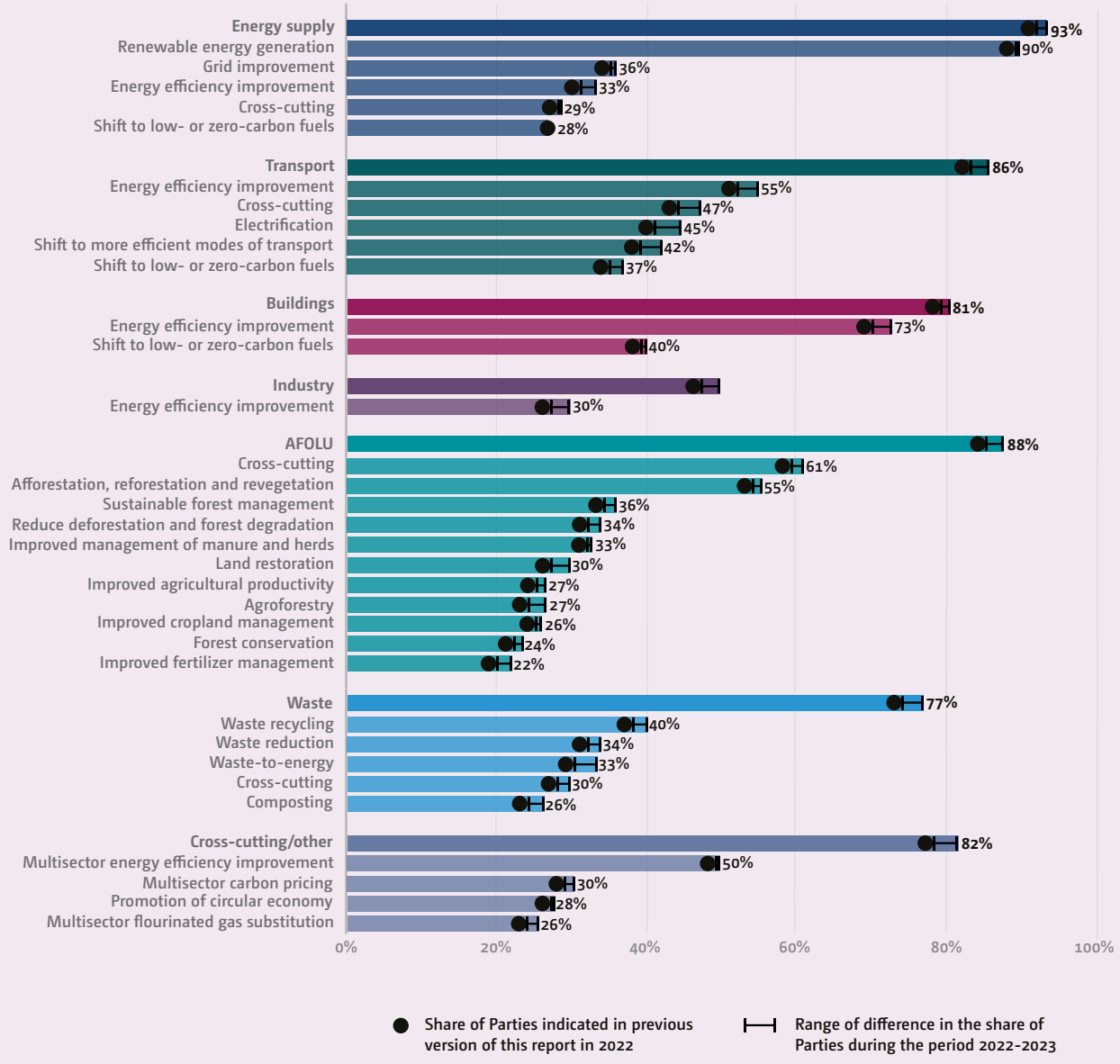
Note: there were 20 NAMAs for recognition, the last of which was registered on 26 April 2023, which is within the reporting period.

Policies and measures

147. A total of 99 per cent of Parties outlined in their NDCs domestic mitigation measures as key instruments for achieving mitigation targets and/or specific priority areas of national importance, which are often a subset of one or more IPCC sectors, including energy supply, transport, buildings, industry, AFOLU and waste. The energy supply sector, AFOLU and transport are the most frequently mentioned priority areas, while industry is only mentioned in half of the NDCs. However, the share of NDCs mentioning each of the priority areas and mitigation options increased between 2022 and 2023 across all sectors (figure 3.13).

Figure 3.13

Share of Parties referring to the specific priority areas and frequently indicated mitigation options in nationally determined contributions, comparison of the 2022 and 2023 synthesis reports



Source: UNFCCC 2023b

148. Annex I Parties have reported an increasing number of policies and measures over time, reaching 3,255 in the BR5 cycle, more than double the policies and measures reported in the BR1s, as reported in the synthesis of the BR5 reports, with a relatively constant split between sectors. The number of policies and measures with quantified impacts has remained stable over time and overall impacts reported are at their lowest level in the BR5s, at 4,388.91 Mt CO2 eq. The majority of impacts (61.0 per cent) were reported for regulatory instruments, possibly because such instruments have greater emission reduction potentials, are considered more effective and have impacts that are easier to quantify.

149. According to the global stocktake synthesis report, developing country Parties provided information on 2,674 mitigation actions in their latest NCs and BURs (UNFCCC, 2022). The energy sector (including transport) represents 60 per cent of all reported measures and industry features in only 4 per cent of all reported measures.

150. In 2024, **carbon pricing mechanisms** had been established in 75 jurisdictions, an increase of 11 jurisdictions since 2021, compared with 19 jurisdictions covering approximately 5 per cent of emissions in 2010. By 2024, carbon pricing mechanisms covered 24 per cent of global GHG emissions, an increase of only 3.5 per cent compared with 2021 and 19 per cent compared with 2010 (World Bank, 2023). The relatively small increase in global coverage over the past years, despite the expanding scope of some policies and new instruments being implemented, is also a result of the fact that GHG emissions are decreasing in most jurisdictions that have implemented a carbon tax or emissions trading scheme. In 2022 and 2023, new or enhanced mechanisms in developing countries were introduced in Indonesia, Mexico and Uruguay. Most carbon pricing mechanisms remain in high-income countries, particularly in Europe and Central Asia. The sectoral coverage of carbon pricing mechanisms varies across countries, but while most cover the electricity and heat generation sector, many also cover industry and mining and extraction. In some countries they also cover buildings, transport, aviation and waste, with one also covering LULUCF.

151. As at 2023, there were 81 and 77 adopted national **buildings codes** for residential and non-residential buildings respectively (UNEP, 2024). Twenty of these codes have been updated and adopted since 2021, and 17 adopted codes were developed or revised in 2023 alone. While the overall number of countries with building codes has only increased by 1 per cent since 2021, the share of mandatory building codes has increased from 54 per cent to 80 per cent.

152. Many developing country Parties are actively engaged in **afforestation and reforestation** or implementing REDD+ activities in accordance with the Warsaw Framework for REDD+ and Article 5 of the Paris Agreement. To date, 54 developing country Parties have submitted a REDD+ forest reference emission level and/or forest reference level for technical assessment. A total of 20 have submitted REDD+ results as a technical annex to their BUR and as at 6 February 2024 eight countries had received results-based payments. Their fully measured, reported and verified REDD+ actions account for emission reductions of 8,188.90 Mt CO2 eq over different time periods.

153. Developing countries are increasingly developing **REDD+ strategies** to address deforestation and forest degradation. Between 2012 and 2022 there were 25 such strategies submitted under the Warsaw Framework for REDD+.

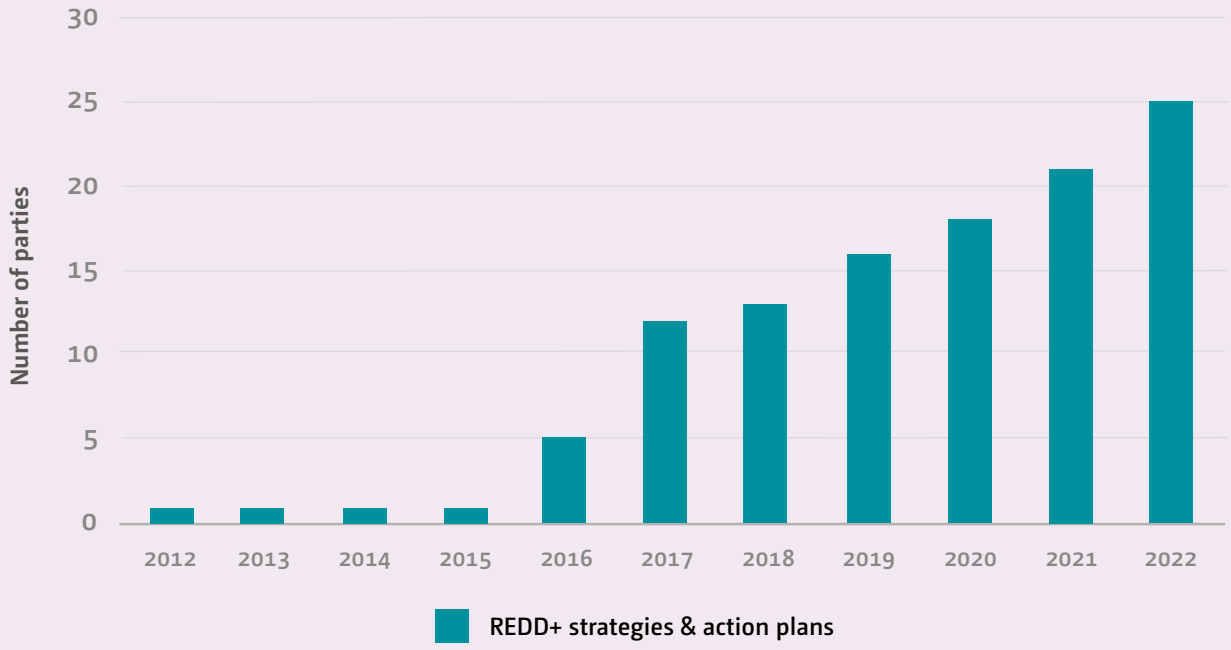
154. The GCF adopted a pilot programme for REDD+ at its 18th Board meeting. Up to November 2020, a total of eight funding proposals had been approved, allocating a total of USD 496.7 million, with the mitigation outcome estimated at 101 Mt CO2 eq. By decision B.35/12, the GCF Board requested the secretariat to prepare a proposal on the financing of results-based payments for REDD+, building on the outcomes of the pilot phase, which was submitted to the GCF for its 37th Board meeting in March 2023. Consultations are ongoing.

Investment and action

155. Although an aggregate of estimated emission reductions from climate finance flows reported in chapter 3.1 above is not available, it is still useful to examine specific finance flows to see a trend in the type of mitigation action financed, particularly the funds that are operating entities of the Financial Mechanism under the Convention.

Figure 3.14

Evolution of REDD+ strategies and action plans



156. By end of 2023, the **GCF** reported a total of USD 7.6 billion in funding for mitigation activities. The largest share of this was dedicated to energy generation and access projects (GCF, 2024) (see figure 3.15). In the transport results area,[8] only 17 projects were approved, worth less than USD 1 billion, indicating the need for more dedicated activities, considering that according to the AR6 the sector was responsible for 15 per cent of global emissions in 2019. Sixty-six projects in the forests and land use results area were approved, although the average funding per project was almost half of that for energy sector projects. Overall, the GCF estimates that approved projects will save approximately 3 Gt CO2 eq, with the highest emission reductions estimated from projects in the buildings, cities, industries and appliances results area, followed by energy generation and access projects.

157. The **GEF** has funded 1,098 projects since its establishment in 1991, with 24 being approved within the last reporting period, from 1 July 2022 to 30 June 2023. The expected emission reduction from projects approved in this period is 1 Gt CO2 eq, with almost half of that resulting from the 'mixed' objective and 'other' projects,[9] followed by projects in the AFOLU sector (335 Mt CO2 eq), which also has the highest amount of funding. There are only very few projects, with low funding volumes, in the renewable energy sector (two projects) and in urban/transport (one project) (see figure 3.15).

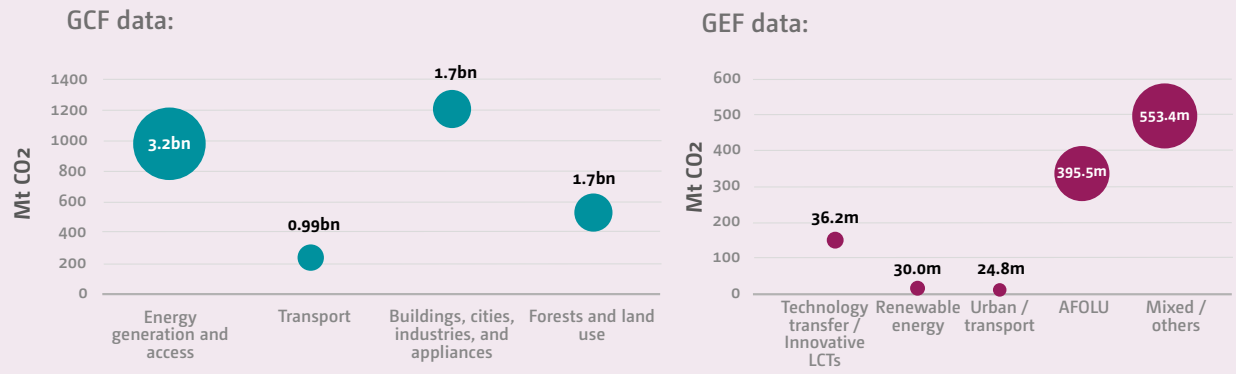
158. The **World Bank** reported emission reductions from IDA projects of 20.5 Mt CO2 eq in financial year 2022–2023, representing a decrease from the 29.1 Mt CO2 eq achieved in financial year 2021–2022 (IDA, 2023). It additionally reported that 4.7 GW of renewable energy capacity was funded, and 4.1 million people were provided with access to clean cooking in 2023. Similarly, ADB reported achieving an estimated annual emission reduction of 27.2 Mt CO2 eq for 2023, down from 29.6 Mt CO2 eq in 2022 (ADB, 2024).

8) Note that individual projects can address more than one results area, so the project numbers do not add up to the total number of projects approved by the GCF.

9) 'Mixed' projects refer to projects with multiple objectives. 'Other' includes five INDC preparation projects and two applied research projects on the global commons. In the seventh replenishment of the GEF, 'other' includes 45 Capacity-building Initiative for Transparency projects.

Figure 3.15

Estimated emissions avoided and funding volumes by results area (mitigation) and by type of project for the reporting period 2022–2023



Source: GCF 2024, FCCC/CP/2023/6

Note: data for GCF funding are based on information provided on the GCF Open Data Library and GEF data are based on the report of the GEF to the COP. .

159. According to IEA, annual **clean energy investment** in emerging markets and developing economies, including China, increased by more than 44 per cent between 2021 and 2024, while growth over the six years prior (2015–2021) was only 19 per cent (IEA, 2024b). The largest growth has been seen in the other clean energy category, which more than doubled over the three-year period, mostly driven by increased investments in EVs. Investments in renewable energy supply have continued their strong performance and increased by almost 89 per cent between 2021 and 2024. Investments in electricity networks increased in 2022 (9 per cent growth compared with 2021), after five years of negative growth, but growth is slowing, with only a 6 per cent increase in 2024 compared with 2023. Overall, investment volumes are still considered insufficient to ensure the efficient integration of renewables into the grid, maintain grid stability and meet rising demand. Energy efficiency has experienced decreased investment, which points to missed opportunities in implementing such measures, which often come at a negative cost.

160. As technology costs decrease, similar levels of investments can result in greater mitigation outcomes. The increasing trend in renewable energy capacity additions continued through 2022 and 2023 (IRENA, 2024). While renewable capacity additions had been slightly lower in 2021 compared with 2020, growth resumed in 2022 and increased in 2023. Capacity additions in 2023 were 78 per cent higher than in 2021. Over the past two years overall installed renewables capacity grew by 25.3 per cent, reaching almost 3,870 GW globally.

161. The AR6 notes that vehicle electrification has been identified as a key element in decarbonizing the transport sector, complemented by biofuels and hydrogen. Investment in EVs is driven by China, where sales of electric cars increased by 82 per cent in 2022, reaching almost 6 million vehicles sold in that year. However, despite starting from lower levels, growth rates in some other key developing country markets are even higher. India leads, with a tripling of sales in 2022 compared with 2021, while Chile experienced an increase of 163 per cent and South Africa 129 per cent over the same period.

162. Investment in clean cooking has received increasing attention, both from a climate perspective and for the many sustainable development benefits generated by moving to clean cooking solutions.[10] There has been considerable progress since 2010, with the absolute number of people without access to clean cooking declining from 3 billion to 2.3 billion by 2022, despite overall population growth (Clean Cooking Alliance, 2023). However, progress was mainly in Asia and Latin America, and it still leaves almost a third of the global population without access. Capital raised by companies involved in clean cooking solutions has increased substantially over the past decade, especially owing to

10) See, for example, https://iea.blob.core.windows.net/assets/212dda1e-63ec-4f42-a530-f2ef3da74fdf/AVisionforCleanCookingAccessforAll.pdf.

carbon offsets (see figure 3.16). At COP 28, the African Development Bank announced that 20 per cent of its approved annual lending will go to clean cooking solutions over the next years.[11]

163. Investments in fossil fuel power generation with CCUS increased by more than 250 per cent between 2021 and 2024. Overall, including investments in other sectors and direct air capture, in 2023 around 20 commercial-scale CCUS units reached a final investment decision and a further 110 projects could reach this point in 2024 (IEA, 2024b).

164. There is increasing action to transform steel production towards green steel, using renewable energy and renewable-sourced hydrogen. As at April 2024, there were 13 pilot or demonstration plants in operation in Australia, Europe and North America and three full-scale production facilities in Asia and South America. Thirteen further projects are under construction, mostly in Europe, but also in Asia and Africa, and 31 projects have been announced, 20 of which are full-scale production plants.

165. For information on meaningful climate resilience and adaptation actions, see box 3.1 in the first report on progress.

3.3.2 Current status and trends in transparency on implementation

Availability of information on transparency

166. The amount of information available from Party submissions has increased considerably over the past years (see figure 3.17):

- NCs include information on climate actions by Parties and needs for developing country Parties. In 2010, 90 per cent of non-Annex I Parties had submitted a first NC (140 Parties) and by 2019 all non-Annex I Parties had submitted their first NC. By the end of 2023, 94 per cent had submitted a second NC (146 Parties), 66 per cent a third NC (103 Parties) and 21 per cent a fourth NC (32 Parties). In 2022 and 2023, a total of 33 Parties submitted an NC, mostly third or fourth NCs. Almost all Annex I Parties (43 Parties) had submitted their eighth NC by July 2024;
- As noted at the start of this section, the number of Parties communicating mitigation actions has increased from 88 Parties communicating NAMAs in 2010 to 194 Parties with NDCs in 2021. Non-Annex I Party communication actions on mitigation increased from 46 national NAMAs in 2010 to 151 NDCs as at the end of July 2024, 78 per cent of which have submitted updated NDCs (118 Parties). Three non-Annex I Parties have not yet submitted an NDC. For Annex I Parties, 44 had submitted quantified emission reduction targets by 2020 in 2010 and submitted INDCs in 2016. All Annex I Parties submitted NDCs,[12] of which 95 per cent had submitted updated NDCs by July 2024;
- Almost all Annex I Parties (43 Parties) had submitted BR5s by July 2024 with information on climate actions and support provided. The number of BURs of non-Annex I Parties with information on climate actions and needs, and climate support received, has been steadily increasing, with 68 per cent (104 Parties) submitting at least one BUR as at the end of July 2024, 29 per cent a second BUR (45 Parties), 18 per cent a third BUR (28 Parties), 8 per cent a fourth BUR (13 Parties) and 3 per cent (4 Parties) a fifth BUR. Forty-four per cent of the countries that submitted at least one BUR are LDCs or SIDS. Of those that have not submitted a BUR, 56 per cent were LDCs and SIDS. As outlined in the previous section, the number of REDD+ annexes to BURs has also increased continuously;
- The formulation and submission of NAPs by non-Annex I Parties continues to increase, reaching 53 as at the end of July 2024. Forty-two per cent of the LDCs and SIDS and 33 per cent of the other non-Annex I Parties have submitted a NAP. One Annex I Party submitted a NAP in 2024. Additionally, countries started to report their adaptation communications in 2020. The number of adaptation communications from developing countries has increased substantially, reaching 35 as at the end of July 2024, with three of these being second submissions. Twenty-two per cent of the LDCs and SIDS have submitted at least one adaptation communication. A total of 16 developed countries also submitted their first adaptation communication in the same time frame, representing 36 per cent of Annex I Parties.

11) Global leaders call for increased resources to provide 1 billion people with clean cooking solutions in Africa | African Development Bank Group (afdb.org).

12) Cyprus was added to Annex I of the Convention by an amendment that entered into force on 9 January 2013, pursuant to decision 10/CP.17. Upon ratification of the Kyoto Protocol by Kazakhstan and its entry into force, Kazakhstan became an Annex I Party for the purposes of the Protocol, but remained a non-Annex I Party under the Convention. However, as the Party is reporting under the MRV framework under the convention, both Cyprus and Kazakhstan are included in Annex I of the Convention for the purpose of this analysis.

Figure 3.16

Clean energy investment in emerging markets and developing economies and China (IEA, 2024b), annual renewable capacity additions (IRENA 2024), investment in clean cooking enterprises (Clean Cooking Alliance, 2023), annual electric vehicle car sales (IEA, 2024b) and fossil fuel investment with carbon capture and utilization/storage (IEA, 2024b)

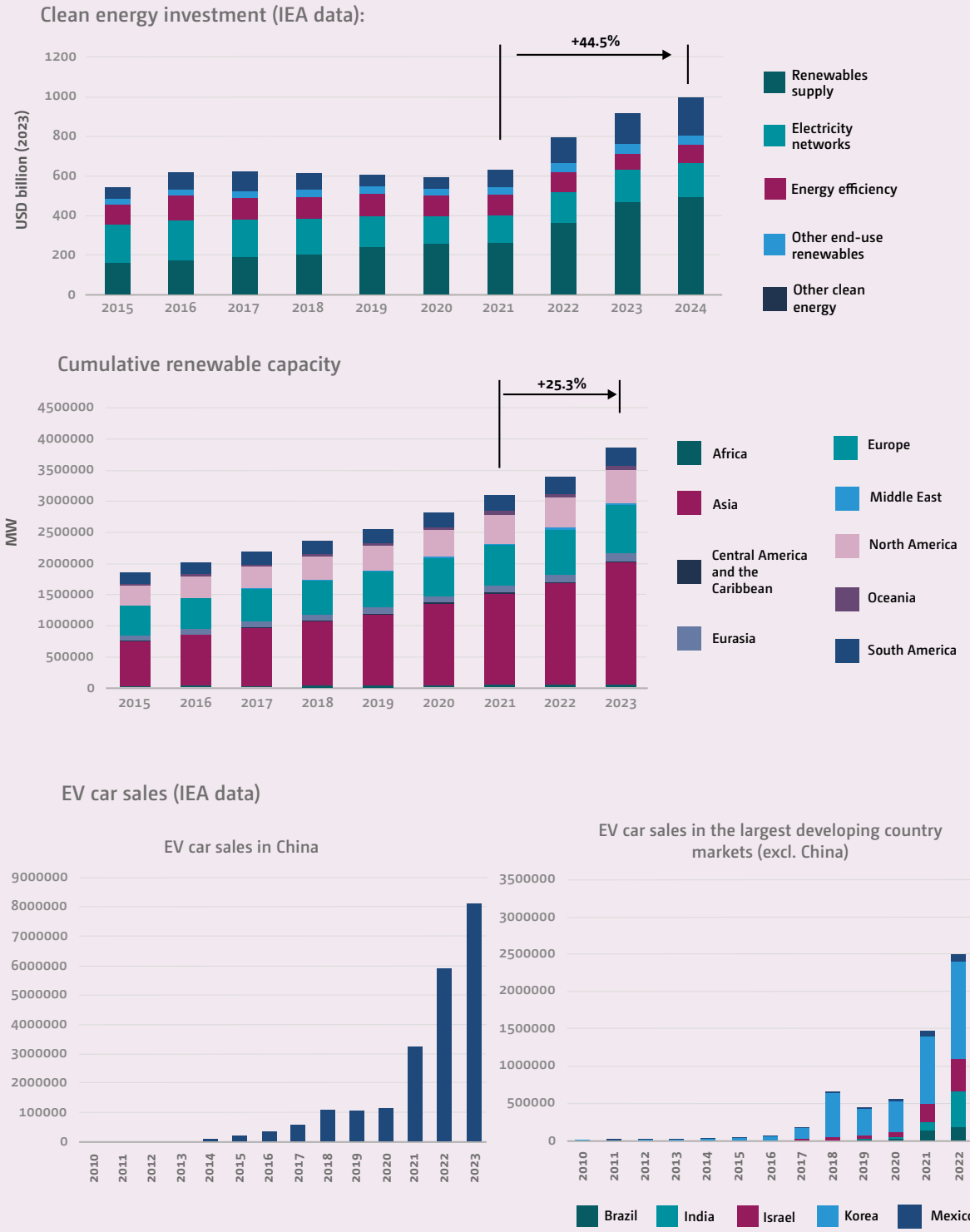
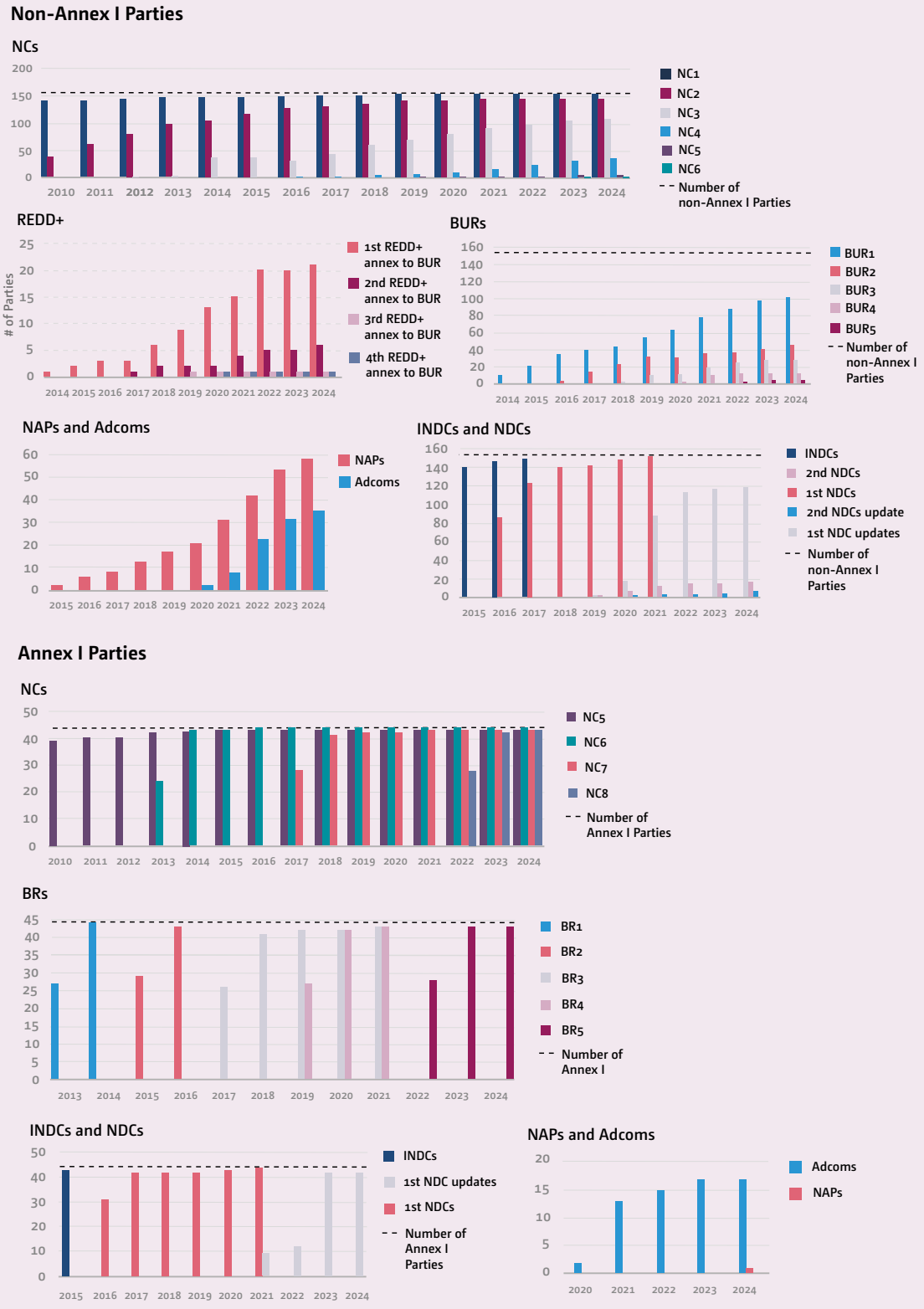


Figure 3.17

Evolution of available information on transparency of climate action, needs and support, and cumulative number of Parties submitting national reports under the Convention and the Paris Agreement



Improvements in transparency over time

167. Unlike BRs, no compilation and synthesis of information in BURs or NCs is mandated that will support an assessment of the progress in reporting transparency on implementation over time. Similarly, NAMAs submitted in 2010 and 2012 were not synthesized for their coverage and scope. However, the latest information in the context of the global stocktake, the NDC synthesis report, as well as the BA and the latest compilation and synthesis of the BR5s, provides examples of where improvements have occurred.

168. **Institutional arrangements**. According to the synthesis report by the secretariat as part of the global stocktake technical assessment, most developed country Parties and many developing country Parties have established the necessary institutional arrangements, including legislative and policy frameworks and arrangements, for the planning, implementation and MRV of mitigation actions. However, many developing country Parties still face challenges in setting up institutional arrangements or domestic MRV systems, partially owing to a lack of financial resources and human capacity.

169. Most developing country Parties that have submitted NCs and/or BURs have institutional arrangements in place for reporting under the Convention. Information on domestic MRV arrangements for monitoring mitigation actions, by contrast, is not commonly reported by developing country Parties, particularly those that have not submitted a BUR. Forty-three per cent of the 78 developing countries with a BUR submitted and 13 per cent of those without a BUR submitted reported MRV arrangements in place.

170. In terms of tracking systems for domestic public climate finance, the fifth (2022) BA noted that 24 jurisdictions across developed and developing countries have established tracking systems for national budgets, with a further 24 countries having methodologies for tracking climate-relevant budgets in development.

171. **Coverage of mitigation action**. The NDC synthesis reports have noted improved coverage of sectors and GHGs in NDCs over time. All Parties provide information on the sectors and gases covered in their NDCs that have slightly increased in the new or updated NDCs compared with the Parties' previous NDCs. Less than 70 per cent of Parties had economy-wide NDCs and provided information on how they are striving to include all categories of anthropogenic emissions and removals in their NDCs over time in 2021, compared with 81 per cent in 2023. Exclusion of certain categories was explained as owing to categories being negligible or insignificant, data unavailability or inaccuracy, or lack of technical capacity.

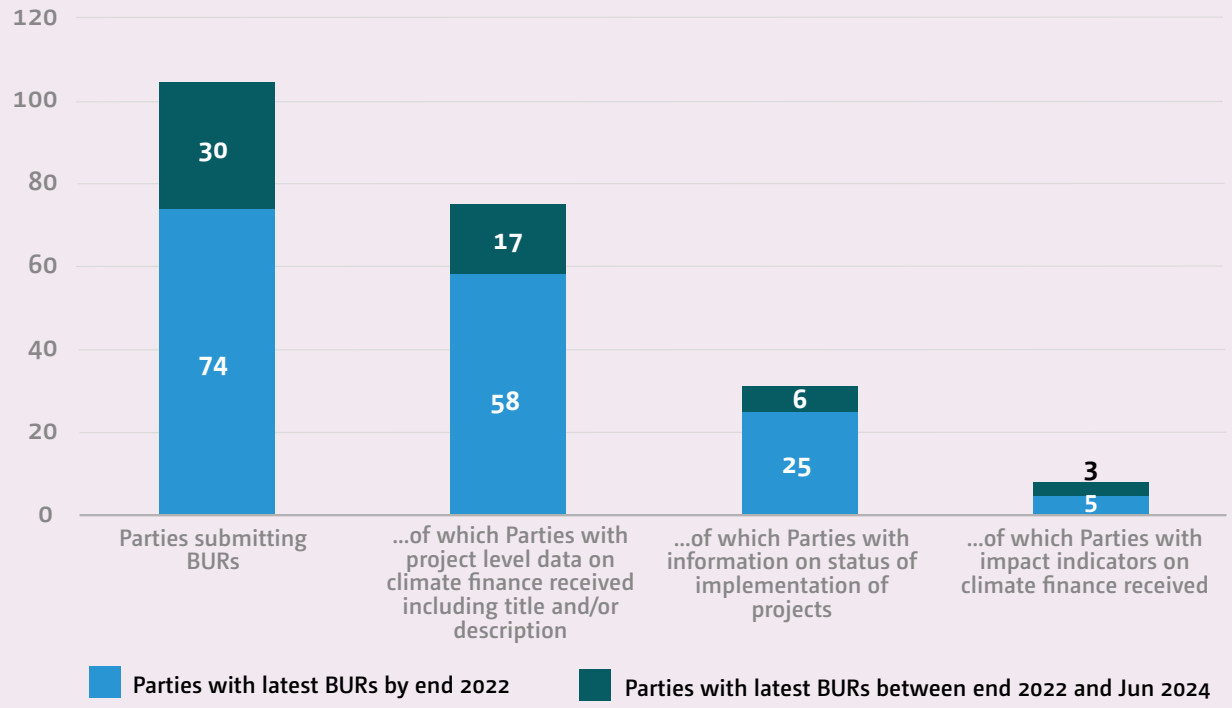
172. **Finance received**. The BURs reporting information on climate finance support received contain varying levels of coverage and granularity of reporting. Sixty-five per cent of the 20 BURs received in 2023 and 80 per cent of 10 BURs received in 2024 included information on climate finance.

173. **Projects funded**. Many non-Annex I Parties include information in their BURs on the projects for which they have received climate finance. Out of 104 Parties submitting BURs as at 30 June 2024, 75 provided information on the title of the project and/or a description of the project. Thirty-one provided information on the status of implementation of the project, such as completed or under implementation, and eight Parties provided further impact indicators separately.

174. As Parties gained reporting experience, they provided more information in their third, fourth and fifth BURs. For example, Argentina included two columns in tabular format in its fifth BUR on the linkages between activities and capacity-building and/or technology development and transfer, which were not provided in its fourth BUR. In addition, several Parties implemented best practices, including outcome-related indicators, when reporting information on finance received. For example, Guatemala provided information on the number of beneficiaries, and South Africa included information on use, impact and results for each project reported.

Figure 3.18

Non-Annex I Party reporting on implementation of climate finance received



175. More information to support assessing progress on transparency on implementation is expected once the ETF is implemented by Parties by the end of 2024, in relation to both climate finance provided and mobilized and climate finance needed and received, including on the use, impact and results of climate finance needed and received.

176. The Capacity-building Initiative for Transparency had 92 projects in its portfolio as at April 2024 (83 active) covering over half of non-Annex I Parties. The most common element remains building technical capacities and institutional arrangements to track mitigation progress, including national GHG inventories, adaptation tracking, enhancing NDCs and policies, and tracking progress related to support.

4

Progress towards the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation

4.1 Mobilizing finance to achieve the goal

4.1.1 Progress made to date

177. According to the latest OECD report published in May 2024, in 2022, developed country Parties provided and mobilized a total of USD 115.9 billion in climate finance for developing country Parties, thereby reaching their collective annual goal of mobilizing USD 100 billion for climate action in developing country Parties for the first time. Oxfam's assessment, which does not contest the technical accuracy of these reports to measure progress according to the methodology agreed by developed countries, but aims to measure the financial effort of developed countries by discounting loan repayments, estimates climate finance provided to be in the range of USD 28–35 billion in 2022.

178. Irrespective of the source of information used, trends show substantial growth since 2020 overall, as shown in chapter 3.1 above. The OECD report series on climate finance and the USD 100 billion goal estimates a growth in climate finance provided and mobilized by developed countries of 39 per cent since 2020, while Oxfam estimate a growth of 32–41 per cent depending on the low- to high-end estimate range used. Preliminary data for the BTRs estimate an increase of 63 per cent from the 2020 climate-specific finance reported in the BR5s of Annex I Parties; however, these data will be difficult to compare with previous years owing to Parties expanding the scope of their reporting in the forthcoming BTRs compared with the BRs. Climate-specific finance through bilateral channels saw similar rates of growth from 2020 to 2022 across the sources of information, by 34 per cent in preliminary Party estimates, 31 per cent in the OECD report series on climate finance and the USD 100 billion goal (USD 41.0 billion) and 33–48 per cent in Oxfam's assessment (USD 16.5–23.4 billion). The key driver of climate finance provided through multilateral channels was MDBs, with growth of 41 per cent since 2020, according to the OECD report series on climate finance and the USD 100 billion goal (USD 46.9 billion), and 45 per cent, according to Oxfam (USD 10.3 billion).

179. Compared with forward-looking projections from 2021 to 2025 outlined in the Climate Finance Delivery Plan published in October 2021, the comparable estimates in the OECD report series on climate finance and the USD 100 billion goal for 2022 show the threshold of USD 100 billion achieved one year ahead of projections amount of USD 101–106 billion in 2023 (although still two years after the initial goal year of 2020) and within the range of the 2025 scenario of USD 113–117 billion.

4.1.2 Challenges and lessons learned

180. **Measures taken have been effective**: The positive trends on climate finance provided and mobilized in 2021 and 2022 show that the measures taken by developed countries to to increase public finance and private finance mobilized have been effective. According to the trends included in chapter 3 climate finance from all sources except multilateral climate funds has increased significantly since 2020, more climate finance went into adaptation actions and the share of climate finance for LDCs and SIDS has been increased.

181. **Methodologies to track progress:** As noted by COP 27 and COP 28, there is no multilaterally agreed accounting methodology towards the goal, which contributes to a lack of common understanding on progress towards its achievement. The methodology used for the OECD report series on climate finance and the USD 100 billion goal covers bilateral finance, multilateral finance attributed to developed countries, private finance mobilized by bilateral and multilateral institutions and attributed to developed countries, and export credit finance. Other sources of information consider private finance, export finance and loans or equity finance at face value to be discounted from measuring progress on the goal (Oxfam, 2024;UNCTAD, 2023). A key lesson in this regard is therefore that thethe importance of having clear metrics or methodologies to track and account the progress towards a goal should be consistent with the formulation of the goal and the clearer they are formulated the easier it is to assess collective progress.

182. **Signs of innovation in channeling public climate finance**: One of the potential innovative sources identified in the first report on progress included the use of SDRs. The allocation of USD 650 billion in SDRs was seen as a potential source of new climate finance. As at June 2024, USD 47.2 billion in SDRs had been pledged to the IMF Resilience and Sustainable Trust, which aims to help low-income and vulnerable middle-income countries build resilience to external shocks and ensure sustainable growth, contributing to their longer-term balance-of-payments stability. It aims to complement the IMF's existing lending toolkit by providing longer-term, affordable financing to address longer-term challenges, including climate change and pandemic preparedness. Data included in the OECD report series on climate

finance and the USD 100 billion goal for 2022 included for the first time climate-specific finance to developing countries from the IMF Resilience and Sustainability Trust, funded by the rechannelling of SDRs, of which 77.5 per cent was calculated as attributable to developed countries. This illustrates an innovative way of scaling up public climate finance.

183. A persistent challenge in mobilizing bilateral sources may be pressure on public balance sheets to sustain and grow allocations to international climate finance. Further potential innovative sources identified in the first report on progress include green sovereign bonds and debt swaps. An analysis by the International Institute for Environment and Development estimated that USD 103.4 billion could be used in debt swaps out of a total external debt stock of USD 431 billion for 49 countries most at risk of default (IIED, 2024). The analysis identified USD 33.7 billion in potential debt swaps for the LDCs. These examples and trends show innovative sources and instruments are available and should increasingly be used to further scale the mobilization of climate finance for developing countries.

184. **Mobilizing finance from MDBs**: One of four key areas for collective action identified in the Climate Finance Delivery Plan Progress Report (Federal Foreign Office, Germany, and Ministry of Environment and Climate Change, Canada, 2022) included the increased mobilization of finance from MDBs. According to the OECD report series on climate finance and the USD 100 billion goal, MDB finance attributed to developed countries is the largest source of climate finance. Since 2022, countries have engaged with MDBs on reforms that may improve the international financial architecture in order to increase the finance available for development and to address collective global challenges such as climate change. A review of progress in implementing the recommendations of the Group of Twenty's independent review of MDB capital adequacy frameworks identified measures with the potential to unlock up to USD 357 billion in additional lending headroom that may be deployed by MDBs in the coming decade.[1] However, challenges remain, as also noted in the Climate Finance Delivery Plan Progress Report, that called on all countries, as shareholders, which is a need to continue to improve their internal coordination on climate ambition at MDBs and push for more climate ambition through their respective Board seats.

185. **Mobilization of private finance**: As noted in the first report on progress, the underperformance of private finance mobilized by public finance interventions was a key challenge in the goal not being achieved by 2020. A significant increase in private finance mobilized by bilateral and multilateral channels of 67 per cent in 2022 (USD 21.9 billion) since 2020 was reported in the OECD report series on climate finance and the USD 100 billion goal. Preliminary estimates from Parties captured this information separately for the first time, albeit predominantly only for finance mobilized by bilateral channels, and significant increases were recorded in 2022 compared with 2021. However, the mobilization of climate finance from private sources remains a challenge owing to a variety of issues, such as broader investment environment conditions, the small size of activities and high perceived risks, as well as the lack of business models within key multilateral providers to focus on this area (OECD, 2023). As noted in the first report on progress, due consideration should be given to supporting activities that can improve the broader investment environment over time (e.g. policy development, providing public data tools and support, and capacity-building), as well as those that may have a more direct and immediate effect on levels of mobilization (e.g. risk mitigants for individual projects with a well-defined revenue stream).

186. **Addressing systemic challenges**: Several systemic challenges associated with the mobilization of climate finance in developing countries such as the high perceived risk remain. As noted in the first report by the SCF, the importance of the ability to have access to mobilization data in order to assess challenges, successes and lessons learned is crucial to address high perceived risks. Since 2022, the Global Emerging Markets Risk (GEMs) database has released statistics on default and recovery rates for developing finance providers transactions since 1994[2] in this regard although it is too early to judge if such information is supportive to broader investment environments. Key lessons identified for climate finance providers include supporting country-level de-risking approaches, developing further secondary market assets to aggregate smaller assets across market and country risk profiles, incentivizing MDBs and other institutions to maximize mobilization potential through dedicated target-setting, and giving further support to risk-sharing mechanisms and local currency lending (OECD, 2023).

1) https://www.g20.org/en/documents/documents-resulting-from-the-3rd-g20-finance-ministers-and-central-bank-governors-meeting-rio-de-janeiro-25th-and-26th-of-july-2024/2-3rd-fmcbg-communique.pdf/@@download/file.

2) Available at https://www.gemsriskdatabase.org/

4.2 Addressing the needs of developing countries

4.2.1 Progress made to date

187. Although there is, as mentioned in chapter 3, a trend in scaling up adaptation finance in recent years, the thematic balance of finance flows are not aligned proportionally with the needs expressed by developing countries. The share of adaptation needs in BURs, NCs and NDCs has increased compared to the first report on progress by the SCF for both expressed and costed needs. Adaptation finance decreased in 2021 by approximately 10 per cent based on the preliminary estimates from Parties, 14 per cent according to the OECD report series on climate finance and the USD 100 billion goal, and 7–9 per cent according to Oxfam, before rebounding in 2022 by 23 per cent (reaching USD 13.9 billion), 32 per cent (reaching USD 32.4 billion) and 42–43 per cent (reaching USD 12.7–14.9 billion) according to the same sources to return to an upward trend. While from relatively smaller amounts, there was significant growth in cross-cutting finance in all the sources of information, more than doubling since 2020 to 2022 according to the OECD report series on climate finance and the USD 100 billion goal (reaching USD 13.6 billion) and Oxfam (reaching USD 3.8–7 billion), and increasing by 49 per cent in the Parties preliminary estimates (USD 13.1 billion). These increases in cross-cutting finance may illustrate the challenge in carving out specific amounts for adaptation and mitigation respectively.

188. According to chapter 3.2 the sectoral needs expressed and finance provided and mobilized match quite well in a proportional comparison with the exception that more finance has proportionally been provided and mobilized for adaptation activities in the transport sector than indicated by needs and less finance has been provided and mobilized in the agriculture and forestry sector for mitigation than indicated by needs. Finance is also reported to flow to banking and financial services sectors (7 per cent), while these sectors have not been highlighted in terms of needs. This indicates that climate finance is often channeled through intermediaries in developing countries for climate action, while needs are usually reported as real economy needs for climate action by developing countries.

189. Information on needs of developing countries points to the importance of grant and concessional finance. Grant finance grew strongly since 2020 across all sources of information, as well as the grant-equivalent estimates of concessional loans according to Oxfam. However, a key aspect in the growth of climate finance driven by MDBs is the prevalence of loans due to their business model (OECD 2024).

190. As stated in chapter 3.2, there is a lack of data on regional distribution of climate finance to developing countries hindering an analysis of how finance is flowing to regions expressed needs. However there is information available in relation to finance provided and mobilized for LDCs and SIDS. Chapter 3 indicates higher shares of climate finance provided and mobilized to LDCs and SIDS. It further demonstrates that while finance flows are proportionate to costed needs for LDCs or even proportionally higher to costed needs for SIDS, significantly less finance is flowing proportionately to LDCs and SIDS compared to their expressed needs overall.

4.2.2 Challenges and lessons learned

191. **Data gaps and reporting quality**: A significant challenge, as reported in the first report by the SCF are the data and knowledge gaps in understanding progress across all aspects of the goal, in particular if finance flows are addressing needs, because the timeframe of reported needs and finance provided and mobilized are completely different. The best effort based on available data remains an approximative proportional analysis by thematic scope, sector, sources and geographical distributions. A potential full picture on needs information would include indicators on the type of activities required, the level of technology deployment, the level of capacity-building needed and other implementation requirements as well as the costed information, while a full picture on finance information to allow for full comparison would mirror such information and have to cover the same timeframe. Furthermore, it is unclear, if cost estimates on needs reflect climate-specific costs or overall activity costs, while the data reported on climate finance provided and mobilized should be focused on climate-specific costs only. Better data granularity on finance provided, mobilized, needed and received would help to bridge these data gaps.

192. With expanded reporting on finance provided, mobilized, needed and received forthcoming under the ETF, this gap may be partially addressed. In particular, developing country Parties may report on expected use, impact and estimated results on finance needed as well as how their financial needs link to national strategies. The reported information will also have clear associated timeframes. In addition, information on finance

received may include the use, impact and results of the financed activities. However, the guidelines on reporting information on the provision and mobilization of finance does not include the impacts to be expected from the finance flows.

193. **Balancing mitigation and adaptation needs and flows**: According to the trends observed, scaling up adaptation finance remains a challenge and has been expressed as a is key area of focus according to the literature (UNCTAD 2023, Federal Foreign Office, Germany and Ministry of Environment and Climate Change, Canada, 2022). A recent report of the OECD building on their series of climate finance data suggests five concrete action areas to scale-up adaptation finance, including i) supporting developing countries' efforts to strengthen their capacities, policies and enabling environment for finance for adaptation, ii) strengthening development practices and systems to ensure efficient delivery of adaptation finance, iii) deploying public and blended finance instruments strategically to mobilize private finance for adaptation and iv) exploring and tapping into alternative financing sources and mobilization instruments for adaptation.

194. **Capacity constraints**: Capacity constraints continue to be a significant challenge. As noted in the first report on progress, there remains the relatively limited capacity of developing countries to quantify costs and build project pipelines that attract and enable public and private climate finance to be targeted to the needs. The most prominent challenges include institutional coordination both the national and local level and across line ministries to identify, cost and articulate project-specific needs comprehensively; high staff turnover, leading to loss of knowledge and expertise in needs identification; and challenges in costing adaptation needs owing to methodological limitations and their long-term nature compared with short-term projects.

195. **Access to finance:** Access to capital is identified as a significant challenge for developing countries to address their needs (UNCTAD 2023, Federal Foreign Office, Germany, and Ministry of Environment and Climate Change, Canada, 2022). The IPCC (2022) noted that debt-constrained developing countries have less access to international capital markets owing to higher perceived risks and lower credit ratings than developed countries, exacerbated by the coronavirus disease 2019 pandemic. The IPCC points to cross-border instruments, such as sovereign guarantees, strengthening local capital markets and boosting international climate finance as potential solutions.

196. **Fit for purpose instruments**: Information on the needs of developing countries also points to the importance of grant and concessional finance. A key aspect in the growth of climate finance driven by MDBs is the prevalence of loans owing to their business model (OECD, 2024). While grant finance has grown strongly since 2020 according to all sources, challenges to increase concessional finance remain. The prevalence of lending in aggregate numbers in the context of high debt burdens and fiscal constraints in developing countries, as already noted in the first report on progress, underscores the importance of overcoming these. According to the IPCC (2022), a variety of different financing instruments are necessary for supporting mitigation and adaptation projects depending on different stages of the project development, different stages of the technology innovation chain, and different maturity of markets. Loans are useful instruments to finance capital-intensive projects with clear revenue streams to support debt repayments. At the same time, grant finance is necessary to support the activities where revenue streams are typically less prevalent to incentivize private sector participation, such as some adaptation activities, as well as to de-risk and mobilize the significant amounts of private capital required for capital-intensive mitigation projects in developing countries, and support policy frameworks, capacity building and development of bankable project pipelines.

4.3 Enhancing meaningful mitigation actions and transparency on implementation

4.3.1 Progress made to date

197. The trends identified in chapter 3.3 above illustrate some progress on meaningful mitigation action. In particular:

- Since 2020, while emissions have continued to increase, the rate of growth has slowed from 2.2 per cent annually between 2000 and 2009 to 1.5 per cent annually between 2010 and 2019. The coronavirus disease 2019 pandemic led to an unprecedented drop in GHG emissions in 2020, with emissions decreasing by 3.6 per cent compared with 2019. However, as restrictions were gradually removed, emissions in 2021 increased by 4.2 per cent to just above the 2019 level;
- Forty-six non-Annex I Parties communicated national NAMAs in 2010, compared with 151 (98 per

cent) submitting NDCs as at the end of July 2024, 78 per cent of which have submitted updated NDCs (118 Parties). For Annex I Parties, in 2010 all had submitted quantified emission reduction targets by 2020, which were followed by INDCs in 2015 and 2016, and by NDCs. Ninety-five per cent of Annex I Parties had submitted updated NDCs as at July 2024;

- The aggregate effect of conditional and unconditional mitigation actions in NDCs submitted as at 30 September 2023 is expected to result in global GHG emissions (excluding LULUCF) in 2025 of 51.6–54.8 Gt CO2 eq, a reduction of 4.6–5.8 per cent compared with the assessment of INDCs from 2016. By 2030, GHG emissions are estimated to be 48.3–54.8 Gt CO2 eq, a reduction of 11.4–12.0 per cent compared with INDCs and returning almost to 2010 levels. According to the Intergovernmental Panel on Climate Change Special Report on Global Warming of 1.5 °C, global emissions need to decline by about 45 per cent by 2030 from 2010 levels to be consistent with pathways with no or limited overshoot of the 1.5 °C goal, and by 25 per cent for limiting warming to below 2 °C.

198. Investigating whether more meaningful mitigation action has played a role in attracting and mobilizing climate finance requires further work. It is well established in the literature that clear, consistent and coherent policy signals and enabling environments are critical to facilitating finance flows. Through their accreditation of entities and establishment of national climate funds, many developing countries have put in place the infrastructure necessary to receive climate finance through multilateral climate funds and other sources.

199. The trends on identified in chapter 3.3 show significant progress on the transparency on implementation by Parties since the USD 100bn goal was agreed, but some transparency gaps remain: Almost all Annex I Parties (43 Parties) had submitted fifth biennial reports by July 2024 with information on climate actions as well as support provided. Biennial update reports of non-Annex I Parties with information climate actions and needs, as well as climate support received, have been steadily increasing. However, 32 percent have still not submitted at least one BUR by July 2024. The formulation and submission of national adaptation plans (NAPs) by non-Annex I Parties continued to increase, reaching 53 by the end of July 2024. 42 per cent of LDCs and SIDS have submitted a NAP and 33 per cent of the other non-Annex I Parties. The number of adaptation communications from developing countries has increased substantially, reaching 35 by the end of July 2024. A total of 16 developed countries also submitted their first adaptation communication in the same timeframe, representing 36 per cent of Annex I Parties.

4.3.2 Challenges and lessons learned

200. **Data gaps and reporting quality**: There is limited to no information to link progress made in the provision and mobilization of finance with progress made in mitigation actions and mitigation ambition as seen in the iterative updates of NDCs. Information on the results achieved with the finance provided also remains very limited and on an aggregate level the NDCs. Where platforms have been established that could support analysis of the linkages between mitigation action and financial support provided, there has been a lack of reporting, for example in the case of the NAMA registry. Further reporting on impacts and results achieved with the finance received as part of the common tabular format of the Biennial Transparency Reports may help to bridge this data gap.

201. **Measuring and tracking progress against all aspects of the goal**: In general, it has been much more challenging to assess progress against "the context of meaningful mitigation action and transparency on implementation" as part of the USD 100bn goal. Chapter 3.3 intends to give some indication on progress made, but the information available is quite scattered. Based on the data available it is also not possible to assessA key challenge remains in understanding whether scaled-up finance flows drive further mitigation ambition, plans and actions, or whether increased mitigation ambition, plans and actions have led to an increase in climate finance. Identifying dedicated reporting processes and / or possible information sources with regard to all aspects of the goal is important to effectively measure and track progress the goal. The expanded information to be reported under the ETF may facilitate exploring such linkages in the future.

Annexes

Annex A.1: Comparison of estimates per channel and sources of information based on latest available year (billions of USD)

	BA			OECD report series on climate finance and the USD 100 billion goal			Oxfam 2024		
Channel/data of last available year	2022	Underlying data source	Notes	2022	Underlying data source	Notes	2022	Underlying data srouce	Notes
Bilateral finance	42.7	BTRs (preliminary data)	Climate-specific finance reported through bilateral, regional and other channels	41.0	BRs (preliminary data)	Excludes coal-related financing and export credits	16.5–23.4	OECD DAC	Author analysis of grant-equivalent amounts of bilateral climate finance with Rio-marked 1 activities (significant) discounted to 30–50if not lower amount reported, and marked 2 activities (principal) discounted to 85%-100% if not lower amount reported per cent
Multilateral climate funds (including UNFCC funds)	3.3	Fund reports, CFU	Commitments to projects in developing countries	3.4	OECD DAC	Only amounts attributable to developed countries	1.1–.3	OECD DAC	Author analysis from OECD DAC data, with a grant-equivalent calcula-tion of 49.8 per cent to concessional loans
MDB climate finance	46.9	OECD	*A range is reported in the BA but figure 2.1 of the BA uses one value*	46.9	OECD DAC and complementary data	Only amounts attributable to developed countries	10.3	OECD DAC	Author analysis of OECD DAC data, with a grant-equivalent calculation of 49.8 per cent to concessional loans
Subtotal multilateral climate finance	N/A	–	Flows across multilateral channels are not aggregated in the BA	50.6	OECD	Outflows of multilateral climate funds, MDB climate finance attributed and inflows to multilateral institutions where outflows are unavailable (0.2)	11.4–11.6	–	–

Channel/data of last available year	BA 2022	BA Underlying data source	BA Notes	OECD report series on climate finance and the USD 100 billion goal 2022	OECD Underlying data source	OECD Notes	Oxfam 2024 2022	Oxfam Underlying data srouce	Oxfam Notes
Officially supported export credits[c]	N/A	–	BR data of some Parties include export credits, reported in bilateral finance	2.4	OECD Export Credit Group statistics and complementary data	Climate-related export credits provided by 20 agencies of developed countries, and extraction of related complementary data provided in the BRs and directly by six countries, mostly for renewable energy	–	–	**Not included**
Mobilized private finance through bilateral institutions	9.2	OECD	Only amounts attributed to developed countries	9.2	OECD DAC and complementary data	Includes private finance mobilized by MDBs and climate funds, only amounts attributed to developed 42.7countries	–	–	**Not included**
Mobilized private finance through multilateral channels	12.7	OECD	Only amounts attributed to developed countries	12.7	–	Only amounts attributable to developed countries	–[e]	–[e]	–
Subtotal mobilized private finance	21.9	OECD	–	21.9	–	–	–	–[e]	Not included
Other private finance flows	11.8	CPI	–	–	–	Not included	–	–	Not included
Total	N/A	–	No aggregate calculation	115.9	–	–	**27.9–34.9**	–	–

Annex B. Description of the methodological approaches used by sources of information

Sources of information on jointly mobilizing USD 100 billion per year

This annex provides a catalogue of the approaches used in sources of information on climate finance related to the USD 100 billion per year goal.

BRs of Annex II Parties. Under the Convention, 24 Annex II Parties are required to provide information on financial support provided to non-Annex I Parties. The BRs capture this, including in CTF tables 7, 7(a) and 7(b). The other 19 Annex I Parties are required to submit NCs and BRs but are not required to provide information in CTF tables 7, 7(a) and 7(b) on the financial resources provided to non-Annex I Parties. However, many non-Annex I Parties do voluntarily provide such information. An international assessment and review process is conducted with regard to the BRs of Annex I Parties. As a first step, technical expert review teams are established to assess the completeness, transparency and timeliness of BRs in accordance with the reporting guidelines, and a technical review report is prepared for each BR, taking into account the comments of the Annex I Party.

COP 17 and 18 agreed the reporting guidelines and CTF tables for reporting financial support provided respectively, while COP 21 further revised the CTF tables to improve specific reporting parameters. As per the reporting guidelines, the reporting period covered in the BRs is three years and two years before the reporting year (i.e. the BR5s submitted in 2022 covered information on financial support provided in 2019 and 2020).

CTF table 7(a) includes information on financial support provided through multilateral channels, either as climate-specific financial amounts or as core general support to multilateral institutions that Parties may not be able to specify as climate-specific. CTF table 7(b) includes information on public financial support provided through bilateral, regional and other channels. CTF table 7 provides a summary of the information from the two underlying tables. Parties' reporting of quantitative data in the CTFs is accompanied by qualitative information on the underlying assumptions and methodologies used in the reporting process, either in a documentation box within the CTF or in the text of the BR itself. The CTF tables facilitate the reporting of financial information by amounts, status (committed or disbursed), funding source (ODA, other official flows or other), financial instrument (grants, concessional loans, non-concessional loans, equity and other), type of support (mitigation, adaptation or cross-cutting) and sector (energy, transport, industry, agriculture, forestry, water and sanitation, cross-cutting and other).

All Annex II Parties have submitted CTF tables on financial support provided in their BR5s covering the period 2019 and 2020. Of the 19 other Annex I Parties that may voluntarily submit information, 11 had provided data on financial support in their CTFs. In their reporting, Parties follow different approaches while fulfilling the reporting requirements. Issues that particularly affect the aggregation of quantitative data include:

- Many Annex II Parties base their reporting of climate-specific finance through bilateral, regional and other channels on their use of the OECD DAC Rio markers, where reporters identify activities targeting climate mitigation and/or adaptation objectives as being either a principal or significant objective. Many Annex II Parties apply a fixed coefficient approach to deduce climate-specific amounts from Rio-marked activities, with 85 to 100 per cent applied to financing amounts of activities marked as principal and from 0 to 50 per cent applied to activities marked as significant. Other Annex II Parties apply a case-by-case methodology to identify climate-specific amounts per activity;
- Some Parties report amounts as financial commitments (approved amounts for a given activity over its lifetime), while other Parties report on disbursements (financial transfers for a given activity in the calendar or fiscal year);
- Parties report on core general support through multilateral channels in different ways. Some report total general contributions to an institution. Others report only their imputed climate-specific share, based on the proportion of the multilateral institutions' outflows to climate mitigation and/or adaptation projects multiplied by their general contribution. Some opt not to report under this parameter at all. One Party also reports total bilateral development finance as a core general contribution provided through bilateral channels.

As noted above, data on climate finance provided through multilateral channels in BRs primarily represent data on inflows to multilateral organizations and entities, while the BA and other reports highlight outflows from these organizations in assessing flows to developing countries. There can be significant differences between the two, reflecting the extent to which multilateral organizations mobilize additional resources from capital markets, based on the strength of their balance sheets. This is separate and additional to any private finance mobilized by a multilateral institution's activities. The reporting guidelines also recognized that the goal of mobilizing financial resources in decision 1/CP.16, paragraph 98, includes private financial resources, and that Annex II Parties should report, to the extent possible, on private finance flows leveraged by bilateral climate finance towards mitigation and adaptation activities in non-Annex I Parties, and should report on policies and measures that promote the scaling up of private investment in mitigation and adaptation activities in developing country Parties.

Parties are due to report on climate finance provided and mobilized, needed and received as applicable for the first time under the ETF at the end of 2024. See the sixth BA for information on how the reporting under the ETF differs from reporting in the BRs. For the purposes of preparing the sixth BA, the SCF invited Parties to provide preliminary data on climate finance in 2021 and 2022, which are data also used in this report.

Biennial communications under the arrangements related to Article 9, paragraph 5, of the Paris Agreement. The Paris Agreement requires developed country Parties, and encourages other Parties providing resources, to biennially communicate indicative quantitative and qualitative information related to the provision and mobilization of climate finance, as applicable, including, as available, projected levels of public financial resources. In 2018, the CMA outlined the types of information to be provided by Parties, including:

- Enhanced information to increase clarity on the projected levels of public financial resources to be provided to developing countries, as available;
- Indicative quantitative and qualitative information on programmes, including projected levels, channels and instruments, as available;
- Information on action and plans to mobilize additional climate finance as part of the global effort to mobilize climate finance from a wide variety of sources, including on the relationship between the public interventions to be used and the private finance mobilized.

In their communications, Parties used different methodologies for projecting their future levels of climate finance, including developing multi-year allocation and disbursement scenarios under which politically committed financial targets could be achieved; allocating a percentage, which would increase in the future, of their annual budget for ODA to climate finance; basing them on their financial commitments to multi-year programmes and initiatives; using the OECD DAC Rio markers to account for climate finance provided in the past; and using OECD DAC methodologies for measuring and tracking private finance mobilized.

Future levels of climate finance were projected on the basis of several assumptions, such as that committed multi-year public climate finance will be annually approved for disbursement by parliament and that disbursement may be affected by socioeconomic challenges faced by developed countries and/or changing needs and priorities of recipient countries, for example as a result of the coronavirus disease 2019 pandemic.

BURs of non-Annex I Parties. The BURs submitted by non-Annex I Parties may include information on climate finance received. The "UNFCCC biennial update reporting guidelines for Parties not included in Annex I of the Convention" state that non-Annex I Parties should provide updated information on financial resources, technology transfer, capacity-building and technical support received from the GEF, Annex II Parties and other Parties that provide support, the GCF and multilateral institutions for activities relating to climate change, including for the preparation of BURs. However, there is no associated common reporting format, and the guidelines do not require information on the underlying assumptions, definitions and methodologies used to generate the information. Limited institutional capacity and resources to track climate finance received, as well as a lack of data, can pose challenges for non-Annex I Parties in reporting this information.

Processes to review the quality of information on climate finance in BURs are included in the ICA cycles. While the primary objective of the ICA process is to enhance the transparency of mitigation actions, it is also expected to potentially contribute to improving the quality of BURs over time. ICA includes two steps: a technical analysis of BURs by a team of technical experts and a facilitative sharing of views through workshops.

As at 30 June 2024, out of 104 non-Annex I Parties

submitting 196 BURs, 89 Parties had reported on finance received across 151 BURs. Information included in BURs on financial support received varies in the degree of detail included. Many Parties indicate that they were only able to report finance received by national governments and that the financial information was partial and represented best efforts to present accurate information while avoiding double counting. The reporting periods used varied across BURs, ranging from annual or biennial time frames to multi-year periods. In some cases, BURs included financial information associated with activity or project duration and/or years of commitment or disbursement.

The most common elements reported include information on project or programme titles, amounts of finance received and time periods, although time periods range from support received to date to new projects initiated since the previous BUR. Many of the Parties reporting information in tabular format provided information on type of support (mitigation, adaptation or cross-cutting), sectors or financial instruments. Only several Parties provided information on the status of activities supported, as well as information on the impact and results of the finance received.

OECD report series on climate finance and the USD 100 billion goal. Since 2015, the OECD report series on climate finance and the USD 100 billion goal has assessed progress against achieving the USD 100 billion goal (OECD, 2024). The analysis captures and aggregates activity-level data for four components:

- Bilateral public climate finance;
- Multilateral public climate finance (attributable to developed countries);
- Private finance mobilized by bilateral and multilateral public climate finance (attributed);
- Climate-related export credits.

Data are sourced from a variety of sources: bilateral climate finance reported in the BRs, statistical data from the OECD DAC reporting system on multilateral climate finance outflows and private climate finance mobilized, and climate-related export credits in the OECD Export Credit Group database.

The report adopts a classification of developed countries as Annex II Parties, all EU member States, Liechtenstein and Monaco. Developing countries are classified as non-Annex I Parties and/or those on the DAC list of ODA-eligible recipients. Countries listed as developing countries beyond non-Annex I Parties include Belarus, Kosovo, Montserrat, Saint Helena, Tokelau, Türkiye, Ukraine, and Wallis and Futuna.

For the bilateral public climate finance component, the OECD report on climate finance and the USD 100 billion goal uses climate-specific data as reported by Parties in table 7(b) (climate finance through bilateral, regional and other channels) of their BRs. As such, and because climate finance reporting under the Convention varies across countries, these data include a mix of commitments and disbursements. Data on export credits reported in BRs are excluded to avoid double counting, as well as coal-related financing. Climate-specific outflows from multilateral institutions are reported through the OECD DAC Creditor Reporting System, including MDBs and multilateral climate funds. For specific multilateral bodies that do not report, the climate-related inflows to those bodies reported by Parties in their BRs are included. Public finance instruments covered in the analysis include grants, loans and equity investments. One Party also includes developmental guarantees in its BRs, which are also included and taken into account in the OECD report series on climate finance and the USD 100 billion goal.

To attribute climate finance outflows from multilateral institutions to developed countries, the OECD employs a methodology that takes account of the institution-specific share of developed countries paid-in recent and historical contributions for multilateral climate funds and the concessional windows of MDBs. For climate finance from non-concessional windows, the methodology sums the share of total paid-in capital contributions to institutions' accounts, and the share of callable capital, which may be called upon in exceptional circumstances, from developed countries with a credit rating of A or above during the analytical period. However, to reflect the higher value of paid-in capital in contributing to climate finance flows to developing countries, its portion of the calculation is weighted at 90 per cent, with a 10 per cent weighting applied to the callable capital portion. The application of the methodology results in institution-specific attributions ranging from 4.8 per cent to close to 100 per cent depending on the institution (OECD, 2024).

The report applies the OECD DAC international standard for measuring private finance mobilized by official development finance interventions. The standard consists of a set of instrument-specific methodologies for syndicated loans, developmental guarantees, shares in collective investment vehicles, direct investment in companies, credit lines, simple co-financing and project finance schemes. Each methodology aims to address issues related to accounting boundaries, causality and attribution to public finance actors to avoid double counting. Editions of the report series since 2019 have made use of the greater accuracy for the wider adoption of the methodologies, resulting in a data break between the reporting years 2013–2014 and 2016–2022.

Oxfam Climate Finance Shadow Report series. The Oxfam Climate Finance Shadow Report series provides an estimate of climate-specific net assistance in assessing progress towards the USD 100 billion commitment. Since 2016, the report series has provided annual average estimates for the 2013–2014, 2015–2016 and 2017–2018 reporting periods respectively. The Oxfam Climate Finance Shadow Report 2023 analyses the 2019–2020 reporting periods and the Oxfam Climate Finance Shadow Report 2024 analyses the 2019–2020 reporting period. The report classifies developed countries as Annex II Parties only and uses activity-level data reported to the OECD DAC External Development Finance Statistics database (climate-related development finance at the activity level, recipient perspective) by bilateral and multilateral finance providers. Data on export credits, mobilized private finance and coal-related finance are excluded in the report's analysis.

The methodology for estimating climate-specific net assistance has varied in different editions of the report series. Oxfam's analysis starts by estimating the climate-relevant amounts of finance from the OECD's data set. For bilateral and multilateral providers that use the Rio marker approach, coefficients are used to estimate the climate-relevant amounts. In the Rio marker approach, reporters identify activities targeting climate mitigation and/or adaptation objectives as being either a principal or significant objective. For activities tagged with a significant objective Oxfam's methodology in the reports up to 2022 uses 30–50 per cent to estimate low- and high-end estimates of climate-relevant amounts of finance, while 100 per cent of the activities tagged with a principal objective are considered climate-relevant. For the Oxfam Climate Finance Shadow Report 2023, the report uses the same coefficients as in previous years unless a country's bilateral finance reported under the Convention is lower than the results, in which case the lower number is used. For the Oxfam Climate Finance Shadow Report 2024, the coefficients used are 30 per cent for activities with a significant objective and 85 per cent for activities with a principal objective for the low-end estimate, and 50 and 100 per cent for the high-end estimate, unless a country's own coefficient applied is lower. These country-level coefficients for reporting on projects marked as significant are available through a survey published by OECD (OECD, 2020, 2022). The discount applied to low-end estimates has evolved from earlier iterations of the report, from 10 per cent (Oxfam, 2016), 20 per cent (Oxfam, 2018) and 30 per cent (Oxfam, 2020, 2023). For multilateral institutions, including MDBs, that do not use the Rio marker approach, the total amount reported is considered as climate-relevant.

Following the estimation of the climate-relevant amounts of finance, the net support value is estimated by accounting for climate finance at its grant-equivalent value. For public grants, 100 per cent of the volumes are counted. For bilateral concessional loans, the climate-relevant finance amounts are discounted using discount rates linked to the issuing country's long-term funding costs at the time the loan is disbursed, along with an added margin based on the credit risk of the recipient country. Following this, the yearly grant element percentages generated to compute the grant equivalent of climate-related development financing as presented in the OECD data set are used by multiplying the percentages by the total nominal value of climate-related ODA loans.

For multilateral concessional loans, the 2022 and 2023 report used the average bilateral grant elements to calculate the grant-equivalent amount of concessional loans from multilateral sources. The 2024 report estimates the grant equivalent of IDA and European Investment Bank loans. The grant element for IDA is applied to all other MDBs and the grant element for bilateral loans is applied to other multilateral climate funds, such as the GCF.

Non-concessional finance instruments (bilateral and multilateral) and mobilized private finance are considered to have zero assistance value in Oxfam's methodology. Equity and shares in collective investment vehicles and any other concessional instruments lacking detailed specifications in the OECD data set were considered at their nominal amount in reports up to 2023, and at zero per cent in the 2024 report.

Sources of information on the needs of developing countries

Below is a catalogue of the approaches used in sources of information on the needs of developing countries. A full overview of national reports submitted under the Convention and the Paris Agreement is available in the second NDR.

The **IEA World Energy Outlook** (2023) estimates global energy investment needs under three scenarios: STEPS, APS and NZE. The STEPS scenario is based on the current climate legislation of countries, reflecting domestic implementation and projecting this out to the future. The APS scenario is based on the assumption that climate commitments and pledges, including net zero targets, will be fully met and on time. The APS scenario includes all major national announcements, including NDCs, NAPs and others, until August 2023, and all net zero pledges considered in the APS scenario are publicly available in the IEA Climate Pledges Explorer. The NZE scenario assumes a pathway towards achieving net zero emissions by 2050, thereby focusing on the global energy sector. The NZE scenario is a normative scenario that shows a pathway for the global energy sector to achieve net zero CO2 emissions by 2050, with advanced economies reaching net zero emissions in advance of others. It meets the key energy-related Sustainable Development Goals, in particular universal energy access by 2030, and major improvements in air quality, and is consistent with limiting the global temperature rise to 1.5 °C (with at least a 50 per cent probability), in line with the AR6. Regarding its definition and sectoral scope of clean energy investments, the IEA considers clean energy as the following sectors and subsectors:

- In power generation: renewable energy sources, nuclear power, fossil fuel plants fitted with CCUS, hydrogen and ammonia, battery storage and electricity grids;
- In efficiency: energy efficiency in buildings, industry and transport, excluding aviation bunkers and domestic navigation;
- In end-use applications: direct use of renewables; EVs; electrification in buildings, industry and international marine transport; and CCUS in industry and direct air capture;
- In fuel supply, clean energy includes low-emission fuels, direct air capture and measures to reduce the emission intensity of fossil fuel production.

63. **IRENA World Energy Transitions Outlook 1.5 °C Pathways.** The report describes an energy transition pathway by 2050 that is aligned with the 1.5 °C goal outlined in the Paris Agreement. The 1.5 °C scenario provides a pathway to limiting global warming by reducing CO2 emissions by 37 Gt from estimated 2022 levels and attaining net zero energy sector emissions by 2050, focusing on electrification and efficiency as key drivers of the energy transition, enabled by renewables, hydrogen and sustainable biomass, and prioritizing market-ready or viable solutions in the coming years. In addition, the PES scenario provides a perspective on energy system developments based on governments' current energy plans and other planned targets and policies, including those outlined in the NDCs. In taking into account both current and announced climate policies, the PES scenario is thus comparable at the design stage to the IEA's APS scenario. IRENA follows a similar but more granular classification of energy transition technology investments that is presented in detail in the second NDR, covering the areas of grids and flexibility, renewable power generation capacity, energy efficiency in industry, transport and buildings, hydrogen, carbon removal and circular economy measures.

64. **The UNEP Adaptation Gap Report 2023** provides an updated estimate of the adaptation costs for developing countries. The lower-bound estimate of its central range is derived from a sectoral modelling approach that aggregates existing sectoral studies and updates cost information to 2021 United States dollar prices and harmonizes the studies for RCP4.5 scenarios that are likely to result in a temperature rise of between 2 °C and 3 °C . Sectoral estimates to inform the indicative aggregate of modelled adaptation costs cover coastal zones, river floods, infrastructure, health, agriculture, fisheries, aquaculture, marine ecosystems, early warning, social protection, terrestrial biodiversity and ecosystem services. Some sectoral studies used were included in the first NDR, such as that of Hallegatte et al. (2019), for resilient infrastructure. The UNEP Adaptation Gap Report 2023 notes a likely underestimate of the biodiversity and ecosystem services costs, as well as missing quantitative information for other potentially relevant sectors, such as cooling demand and labour productivity, business and industry, capacity-building, governance and societal impacts (on education, migration and conflicts). While harmonization of these sectoral studies was conducted to some extent with regard to price levels and climate scenarios, granular differences in reference periods and for specific climate models under the RCPs may still exist when compared with fully integrated assessment models. The UNEP Adaptation Gap Report 2023 further notes the dependency of estimates on underlying modelling assumptions, which would lead to substantial differences

of outcomes from global models; for example, changing assumed levels of residual damage as more ambitious adaptation reduces residual levels, or applying different objectives for river flood adaptation that would have altered adaptation costs by a factor of more than two.

IHLEG reported the climate- and nature-related investment needs of emerging economies and developing countries, excluding China, basing its key findings on the work by Bhattacharya et al. (2022) that assesses sector and geographical requirements for investments to keep the 1.5 °C target in reach and to meet the goals of the Paris Agreement across all its dimensions. Climate- and nature-related investments are considered a subset of spending requirements for meeting the climate and related Sustainable Development Goals. For its assessment, the report uses country-level data from Bhattacharya et al. (2022) and incorporated climate-related aspects and top-down studies of needs assessments for developing countries for major climate investment categories. Estimates relating to energy system transformation build upon relevant work by IEA. The sectors and technologies covered are power systems (zero carbon generation, transmission and distribution, storage and backup capacity, early phase-out of coal), transport (low-emission transport infrastructure, fleet electrification/hydrogen), industry (energy efficiency, industrial processes), buildings (electrification, energy efficiency and GHG abatement) and green hydrogen (production, transport and storage). The IHLEG report also features estimates of adaptation and climate resilience, loss and damage, and natural capital and sustainable agriculture spending, based on the country-by country approach in Bhattacharya et al. (2022). The estimates for natural capital investment combine analysis of agricultural spending by Kharas and McArthur (2019) and analysis of investments to protect and restore nature by Systemiq (2021). The estimates for adaptation and resilience investment are mainly based on an analysis by Systemiq (2021). Loss and damage estimates are derived, among others, from the UNEP Adaptation Gap Report 2016 and the World Bank Country Climate and Development Report series.

The contribution of Working Group II to the AR6 reviewed a number of available pre-2020 studies on adaptation cost estimates in developing countries and reported the median estimate (and range) of these assessments for both 2030 and 2050. It features the study of Chapagain et al. (2020), which also conducted a meta-review of aggregate adaptation costs in developing countries across three types of assessment: national plan-based, bottom-up science-based and global top-down estimates. Adaptation cost ranges from the reviewed studies are based on the RCP2.6 and 8.5 pathways and capture low and high global warming scenarios and are given in 2005 United States dollar constant prices.

Sources of information on meaningful mitigation actions and transparency on implementation

UNFCCC. Since 2014, the COP has mandated the secretariat to prepare synthesis reports, first on INDCs in anticipation of the culmination of negotiations on the Paris Agreement in 2015, which was later updated to include all INDCs submitted as at 4 April 2016.[3] COP 21 and CMA 2 also provided mandates for the secretariat to prepare synthesis reports on NDCs submitted by Parties. An initial version was published in February 2021 on NDCs submitted as at 31 December 2020, followed by a full version in September 2021 on NDCs submitted as at 30 July 2021, which included an addendum outlining the approach and methods used for estimating emission levels based on the NDCs. An updated version was published ahead of COP 26, on 25 October 2021, which considered all the NDCs submitted as at 12 October 2021.[4]

In 2022, the secretariat prepared synthesis reports in accordance with the mandates for the technical assessment components of the global stocktake. This included a synthesis report on the overall effect of NDCs as submitted as at 31 December 2021 (UNFCCC, 2022b). In addition, a synthesis report on the state of GHG emissions by sources and removals by sinks and mitigation efforts undertaken by Parties includes descriptions of national mitigation planning, implementation and MRV of mitigation actions based on the most recent BRs of developed country Parties and NCs and BURs of developing country Parties as at August 2019.[5] The addendum published on 17 April 2023 includes an analysis of a further 80 BURs and NCs published after August 2019.[6]

The approach in estimating the aggregate effect of emission levels based on NDCs included separately

3) Available at https://unfccc.int/process/the-paris-agreement/nationally-determined-contributions/synthesis-report-on-the-aggregate-effect-of-intended-nationally-determined-contributions.
4) Available at https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/nationally-determined-contributions-ndcs/ndc-synthesis-report#eq-1.
5) Available at https://unfccc.int/documents/461466.
6) Available at https://unfccc.int/global-stocktake-secretariat-synthesis-reports-and-addendas.

estimating unconditional emission reduction levels and the combined effect of unconditional and conditional emission reduction levels. For countries, sectors and gases not covered by the NDCs, estimates derived from the IPCC reference scenario (see below) were used. Where a target for 2025 was not specified, the report applies linear interpolation between the latest historical emission level available and the estimated level of emissions in 2030 resulting from the implementation of its NDC.[7]

UNEP Emissions Gap Report series. The UNEP Emissions Gap Report series assesses the global emission trends and nationally communicated emission reduction ambition against estimated emission pathways consistent with limiting global warming to below 2 °C and pursuing 1.5 °C, drawing on information provided in quantified economy-wide emission reduction targets and NAMAs (since 2010) and NDCs (since 2015). Emission pathways employed in the 2010 report provide a likely (greater than 66 per cent) chance of staying within the 2 °C boundary, and all ranges in the report represent the 20th and 80th percentiles of results. Conditional pledges are defined as contingent on the ability of national legislatures to enact the necessary laws, ambitious action from other countries, realization of finance and technical support, or other factors, while unconditional pledges are defined as without conditions for implementation attached. The quantification of the impact of new or updated NDCs and announcement as compared with previous NDCs is conducted through a range of five model groups and two open source tools that provide NDC emission projections.[8] As compared with the 2023 UNFCC synthesis report, the UNEP Emissions Gap Report 2023 results in a higher estimate of 2010 emissions by 3–4 Gt CO2 eq, owing to, among other reasons, different assumptions on global warming potential values and LULUFC GHG emissions. For 2030, the UNEP Emissions Gap Report 2023 shows a larger range, with projections between 50 and 57 Gt CO2 eq, while the UNFCCC synthesis report shows a range from 52 to 55 Gt CO2 eq, owing to the incorporation of political announcements versus NDC reporting only.

IEA World Energy Outlook series. Since 2021, the IEA has used a hybrid modelling approach relying on the strengths of the World Energy Model – a large-scale simulation model designed to replicate how energy markets function – and the Energy Technology Perspectives model – a technology-rich bottom-up model – to develop scenarios of how to transition to an energy system with net zero CO2 emissions by 2050. The integrated framework of the IEA's Global Energy and Climate Model is now the principal tool used to generate detailed sector-by-sector and region-by-region long-term scenarios across IEA publications. The Global Energy and Climate Model is used to explore various scenarios, each of which is built on a different set of underlying assumptions about how the energy system might evolve over time. Scenarios include the stated policy scenario, which reflects current policy settings based on a sector-by-sector and country-by-country assessment of the energy-related policies that are in place as at the end of August 2023, as well as those that are under development. The scenario also takes into account currently planned manufacturing capacities for clean energy technologies and serves as a benchmark to assess the potential achievements (and limitations) of recent developments in energy and climate policy.[9]

IEA/IRENA information on clean energy. IEA, through its World Energy Investment report series, provides information on global energy investment by region and by breakdown of advanced economies (defined as OECD member States plus Bulgaria, Croatia, Cyprus, Malta and Romania), China, and emerging markets and developing economies (defined as all other countries). The report provides aggregate totals for clean energy investment as well as fossil fuels without carbon capture and storage across both the supply side (upstream and downstream including power generation) and demand side (end-use activities and energy efficiency). Clean energy includes renewable power, nuclear power, EVs, low-carbon fuels, CCUS, grids and storage, energy efficiency and other end uses. Energy efficiency and other end uses includes spending on energy efficiency, renewables for end use and electrification in the buildings, transport and industry sectors. Low-carbon fuels include modern liquid and gaseous bioenergy, low-carbon hydrogen and hydrogen-based fuels that do not emit CO2 from fossil fuels directly when used and that also emit very little when being produced. Investment is measured as the ongoing capital spending on assets. For energy efficiency, the measurement includes the incremental spending by companies, governments or individuals to acquire a piece of equipment that is more efficient than the local market average.[10]

7) Further information on the methodologies applied is available in the respective addendums to the NDC synthesis reports.
8) Further information on the UNEP Emissions Gap Report methodology is available at https://www.unep.org/resources/emissions-gap-report-2021, in particular chapter 2.
9) Further information on the IEA model and the STEPS scenario is available at https://www.iea.org/reports/global-energy-and-climate-model.
10) Further information on the IEA methodology is available at https://iea.blob.core.windows.net/assets/79c65e95-baf6-4cc3-b16f-9ea7c7e6be42/WorldEnergyInvestment2022MethodologyAnnex.pdf.

IRENA provides country-level statistics on renewable energy power generation and installed capacity represented as the maximum net generating capacity of power plants and other installations that use renewable energy sources to produce electricity. For most countries and technologies, the data reflect the capacity installed and connected at the end of the calendar year. Data are collected through questionnaires, official statistics, industry association reports, and other reports and news articles.[11]

IEA EV data. Since 2016, IEA has tracked the development of EVs through the IEA Global EV Outlook series. A publicly accessible data explorer with key data from the reports is also available.[12] The reports track market trends and policy developments and provide an outlook on potential future developments in critical areas around EVs. A key market trend is the sale of EVs across the globe, with a focus on cars, but increasingly also other types of vehicle. The term sales, as used in the reports, represents an estimate of the number of new vehicles on the road. Where possible, data on new vehicle registrations are used. In some cases, however, only data on retail sales (such as sales from a dealership) are available. The term car is used to represent passenger light-duty vehicles and includes cars of different sizes, sports utility vehicles and light trucks. Unless otherwise specified, the term EV is used to refer to both battery electric and plug-in hybrid EVs, but does not include fuel cell EVs. IEA analysis is based on country submissions, complemented by the European Automobile Manufacturers Association, the European Alternative Fuels Observatory and the Electric Vehicle World Sales Database.

Clean Cooking Alliance. Data are based on self-reported data, including a survey of more than 700 enterprises, supplemented by publicly available data. Enterprises include biomass cookstove manufacturers, producers of processed biomass fuel and biogas systems, liquid petroleum gas distributors focusing on increasing access of consumers in low- and middle-income countries, distributors of electric and solar solutions and service providers. The report does not claim to be a fully exhaustive representation of the for-profit clean cooking sector. It is meant to provide an abbreviated understanding of a situation in a particular range of time. Owing to the absence of revenue and investment data from some large enterprises, the observations made of clean cooking revenue, carbon revenue and total investment are known to be conservative. Annual investment data are based on reported investment flows each year and are not adjusted for inflation. Three enterprises providing data for the report have additional business activities unrelated to clean cooking. The Clean Cooking Alliance has attempted to segregate investment data by business line in some cases. In one case, this segregation has not been possible. However, most enterprises in the analysis are primarily focused on clean cooking, and most of their sales are from clean cooking products.

GCF reporting. At COP 16, Parties established the GCF and in 2011 designated it as an operating entity of the Financial Mechanism. The GCF seeks to have an impact within eight mitigation and adaptation result areas, four for each theme. Mitigation is divided into the following result areas: energy generation and access; transport; buildings, cities, industries and appliances; and forests and land use. Each project is assigned one or more of the eight results areas. Allocated funding and the estimated impact are determined based on a percentage value assigned to each result area, adding up to 100 per cent in total, representing the relative importance of the result area for each project.

GEF reporting. The GEF has served as an operating entity of the Financial Mechanism since the Convention's entry into force in 1994 and also serves other international environmental conventions, such as the Convention on Biological Diversity. The Financial Mechanism is accountable to the COP, which decides on its policies, programme priorities and eligibility criteria for funding. Under a memorandum of understanding between the COP and the GEF adopted by decision 12/CP.2, the GEF reports to the COP annually. GEF classifies mitigation projects by areas: technology transfer and innovative low-carbon technologies; energy efficiency; renewable energy; sustainable transport and urban systems; AFOLU; small grants programme; and 'mixed' and 'other'. 'Mixed' projects are projects with multiple CCM objectives. 'Other' includes seven projects relating to methane and three projects relating to fuel substitution. In the sixth replenishment of the GEF, 'other' included five INDC preparation projects and two applied research projects on the global commons. In the seventh replenishment of the GEF, 'other' include 45 Capacity-building Initiative for Transparency projects.

World Bank reporting. Project-level net (also termed

11) Further information is available at https://irena.org/publications/2022/Apr/Renewable-Capacity-Statistics-2022.
12) https://www.iea.org/data-and-statistics/data-tools/global-ev-data-explorer.

as relative) GHG emissions are calculated as an annual average of the difference between emissions expected to be generated by project activities aggregated over the economic lifetime of the project and the emissions of a baseline (counterfactual) scenario aggregated over the same time horizon. The indicator applies to operations that are subject to GHG accounting under the corporate mandate. This includes International Bank for Reconstruction and Development/IDA investment lending in Sustainable Development and Infrastructure Practice Groups covering key economic sectors (energy and extractives; transport; environment, natural resources and blue economy; urban, resilience and land; water; and agriculture and food) where World Bank-approved GHG accounting methodologies and tools exist. The indicator is based on an ex ante estimation performed during project preparation using World Bank-approved methodologies and tools. The indicator value is negative if the project is reducing or sequestering emissions, and positive if the project is increasing emissions. Net GHG emissions are calculated as an aggregate of the net emissions of projects delivered in the fiscal year. If the project undergoes major restructuring or is subject to additional financing relevant to GHG accounting, the ex ante estimation of project net emissions needs to be recalculated at the time of restructuring or processing additional financing. Net GHG emissions are reported for entire projects regardless of the share of International Bank for Reconstruction and Development or IDA financing.

Annex C. Submissions received in response to the call for evidence

The table below presents the stakeholders that responded to a call for evidence on information and data for the preparation of the second report on progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation.

Submission	Date
Hindou Oumarou Ibrahim, Chair of the UN Permanent Forum on Indigenous Issues	20 June 2024
UNCTAD	28 June 2024
Oxfam	30 June 2024
KAPSARC	30 June 2024
Global CCS Institute	1 July 2024

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Bhattacharya A, Grantham, Research Institute on Climate Change and the Environment, et al. 2022. Financing a big investment push in emerging markets and developing economies for sustainable, resilient and inclusive recovery and growth. London, UK and Washington D.C., USA: LSE Grantham Research Institute on Climate Change and the Environment and Brookings Institution Center for Sustainable Development. Available at https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/05/Financing-the-big-investment-push-in-emerging-markets-and-developing-economies-for-sustainable-resilient-and-inclusive-recovery-and-growth-1.pdf.

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