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2020 round table on pre-2020 implementation and ambition

Summary report by the secretariat

Summary

This document contains the summary report on the round table on pre-2020 implementation and ambition, held virtually during the UNFCCC Climate Dialogues 2020. Building on the 2018 and 2019 stocktakes on pre-2020 implementation and ambition, the round table provided an opportunity for Parties and non-Party stakeholders to share progress in relation to pre-2020 implementation and ambition, and lessons learned on advancing implementation and ambition. This summary report will serve as an input for the second periodic review of the long-term global goal under the Convention and of overall progress towards achieving it.



Abbreviations and acronyms

Annex I Party	Party included in Annex I to the Convention
AR	Assessment Report of the Intergovernmental Panel on Climate Change
BR	biennial report
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
COP	Conference of the Parties
COVID-19	coronavirus disease 2019
EIT Party	Party with economy in transition
EU	European Union
G20	Group of 20
GCF	Green Climate Fund
GHG	greenhouse gas
IFRC	International Federation of Red Cross and Red Crescent Societies
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
LDC	least developed country
MDB	multilateral development bank
NAP	national adaptation plan
NDC	nationally determined contribution
non-EIT Party	Party that does not have an economy in transition
OECD	Organisation for Economic Co-operation and Development
SR1.5	Intergovernmental Panel on Climate Change Special Report on Global Warming of 1.5 °C
UNEP	United Nations Environment Programme

I. Introduction

A. Mandate

1. The COP decided to hold at COP 26 a round table among Parties and non-Party stakeholders on pre-2020 implementation and ambition, and invited Parties and non-Party stakeholders to submit inputs via the submission portal by September 2020 to inform the round table.¹
2. The COP requested the secretariat to prepare a summary report by September 2021 on the basis of the outcomes of the round table to serve as an input for the second periodic review of the long-term global goal under the Convention and of overall progress towards achieving it.²

B. Proceedings

3. The round table on pre-2020 implementation and ambition was held virtually on 30 November and 1 December 2020 during the UNFCCC Climate Dialogues 2020.³ It was webcast live and attracted over 200 participants.⁴
4. On the first day, the co-chairs, Julio Cordano (Chile), representing the COP 25 Presidency, and Archie Young (United Kingdom of Great Britain and Northern Ireland), representing the incoming COP 26 Presidency, opened the round table with welcoming remarks. Thereafter, presentations were made by representatives of the Global Green Growth Institute, IFRC, IRENA, the IPCC, the secretariat, UNEP and the World Bank, as well as the high-level champions for global climate action, focusing on progress of implementation and ambition in relation to mitigation, adaptation and means of implementation. There were also two question and answer sessions.
5. The second day, which focused on sharing lessons learned on advancing implementation and ambition, comprised short ice-breaker presentations by four participants followed by general discussion among all participants.
6. Four submissions were received in response to the invitation referred to in paragraph 1 above, from China, Gabon on behalf of the African Group, Germany and the European Commission on behalf of the EU and its member States, and Switzerland.⁵

II. Summary of discussions

7. This chapter provides a summary of views on pre-2020 implementation and ambition in relation to mitigation, adaptation and means of implementation on the basis of the presentations and interventions at the round table and the inputs provided in the submissions received. It is intended to highlight the key elements of the discussions thematically, rather than chronologically, and is not an exhaustive account of the round table.⁶

¹ Decision 1/CP.25, paras. 19–20.

² Decision 1/CP.25, para. 21.

³ Owing to the postponement of COP 26 due to COVID-19 and following the guidance of the COP Bureau to hold events scheduled for 2020 in 2020.

⁴ All information relevant to the round table, including agenda, presentations, submissions and webcast, is available at <https://unfccc.int/event/roundtable-on-pre-2020-implementation-and-ambition>.

⁵ Available at <https://unfccc.int/event/roundtable-on-pre-2020-implementation-and-ambition>.

⁶ The heading numbering in this document does not imply any hierarchy among the elements discussed.

A. Implementation and ambition in relation to mitigation

1. Evolution of Intergovernmental Panel on Climate Change assessment findings

8. Published in 2007, the AR4 stated that warming of the climate system is unequivocal. The IPCC applied previously developed scenarios from its Special Report on Emissions Scenarios⁷ to outlining possibilities for the peaking and reduction of emissions.

9. With advanced understanding of climate change, the AR5, published in 2014, identified human influence as the dominant cause of global warming. It highlighted the approximately linear link between cumulative CO₂ emissions and global warming, and introduced the concept of an emissions gap between the aggregate outcome of the Cancun pledges⁸ and emission pathways consistent with the then long-term temperature goal under the Convention of below 2 °C warming. The AR5 served as input to the structured expert dialogue of the first (2013–2015) periodic review of the long-term global goal under the Convention, which preceded adoption of the Paris Agreement.

10. The SR1.5⁹ was prepared at the invitation of the UNFCCC and published in 2018. Building on the AR5, it elaborated on the concepts of a carbon budget¹⁰ for a given warming level, and the period of net zero CO₂ emissions¹¹ (not aggregate GHG emissions) required to limit warming to that level, and of temperature overshoot.¹² It classified published emissions scenarios by warming level rather than by GHG concentration, and introduced the notion of illustrative emission pathways, demonstrating that there are options for mitigation strategies to limit warming to a given level.

2. Global emission trends

11. For the 2019 UNFCCC report *Climate action and support trends*,¹³ global aggregate GHG emissions were estimated mainly on the basis of information contained in the national GHG inventories submitted to the secretariat by Parties in their national inventory reports, national communications and biennial update reports. Data gaps in the national GHG inventory time series were filled using data from other sources (such as the International Energy Agency for CO₂ emissions from fuel combustion, and FAOSTAT, the statistical database of the Food and Agriculture Organization of the United Nations, for emissions from

⁷ IPCC. 2000. *IPCC Special Report on Emissions Scenarios*. N Nakicenovic and R Swart (eds.). Cambridge, United Kingdom: Cambridge University Press. Available at <https://www.ipcc.ch/report/emissions-scenarios/>.

⁸ Quantified economy-wide emission targets for 2020 communicated by Annex I Parties in accordance with para. 4 of the Copenhagen Accord.

⁹ IPCC. 2018. *IPCC Special Report on the Impacts of Global Warming of 1.5 °C above Pre-industrial Levels and Related Global Greenhouse Gas Emission Pathways in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty*. V Masson-Delmotte, P Zhai, H-O Pörtner, et al. (eds.). Geneva: World Meteorological Organization. Available at <https://www.ipcc.ch/sr15/>.

¹⁰ The SR1.5 defines the remaining carbon budget as the “estimated cumulative net global anthropogenic CO₂ emissions from a given start date to the time that anthropogenic CO₂ emissions reach net zero that would result, at some probability, in limiting global warming to a given level, accounting for the impact of other anthropogenic emissions”. The total carbon budget is calculated by adding historical emissions at pre-industrial levels to the remaining carbon budget.

¹¹ The SR1.5 states that net zero CO₂ emissions are achieved “when anthropogenic CO₂ emissions are balanced globally by anthropogenic CO₂ removals over a specified period”.

¹² The SR1.5 defines temperature overshoot as “the temporary exceedance of a specified level of global warming. Overshoot implies a peak followed by a decline in global warming, achieved through anthropogenic removal of CO₂ emissions globally”. According to the SR1.5, the emission pathways presented in the report – “modelled trajectories of global anthropogenic emissions over the 21st century” – are “classified by their temperature trajectory over the 21st century: pathways giving at least 50% probability based on current knowledge of limiting global warming to below 1.5°C are classified as ‘no overshoot’; those limiting warming to below 1.6°C and returning to 1.5°C by 2100 are classified as ‘1.5°C limited-overshoot’; while those exceeding 1.6°C but still returning to 1.5°C by 2100 are classified as ‘higher-overshoot’”.

¹³ UNFCCC. 2019. *Climate action and support trends*. Bonn: UNFCCC. Available at <https://unfccc.int/news/new-un-report-shines-light-on-trends-in-climate-action>.

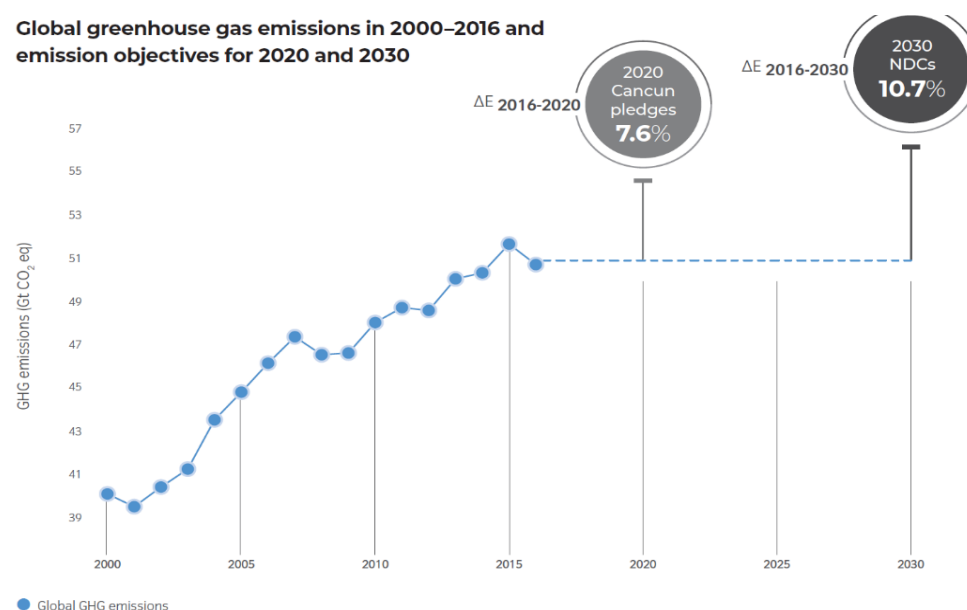
land use) or using interpolation or extrapolation. Figure 1 shows that global aggregate GHG emissions in 2016 totalled 50.81 Gt CO₂ eq, including emissions and removals from forests and land use, which is 31.2 per cent above the 1990 level, and illustrates the following three periods:

- (a) 2000–2007: rapid emission growth;
- (b) 2008–2009: stabilization of emissions, with close to zero growth;
- (c) 2010–2016: resumed emission growth, but at a slower rate than pre 2007, with a gradual slowdown since 2010.

Figure 1

Global aggregate greenhouse gas emissions

Global greenhouse gas emissions in 2000–2016 and emission objectives for 2020 and 2030



Source: UNFCCC. 2019. *Climate action and support trends*. Bonn: UNFCCC. Available at <https://unfccc.int/news/new-un-report-shines-light-on-trends-in-climate-action>.

Note: Percentages indicate the projections that fulfilling the Cancun pledges would result in emissions in 2020 being 7.6 per cent above the 2006 level, and fulfilling NDC commitments would result in emissions in 2030 being 10.7 per cent above the 2016 level.

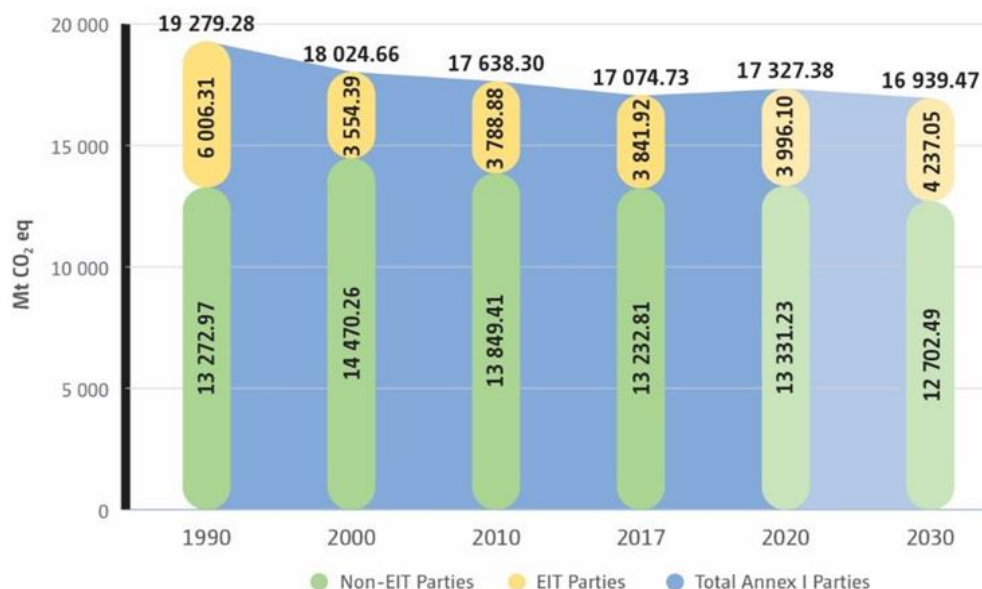
3. Progress towards Cancun pledges and targets in nationally determined contributions¹⁴

12. The compilation and synthesis, published in 2020, of 41 BR4s of Annex I Parties¹⁵ shows progress towards their 2020 emission reduction targets. Figure 2 shows the declining trend in their emissions, which decreased by 13 per cent in 1990–2018 and 3.4 per cent in 2010–2018. Their emissions are projected to increase slightly in 2017–2020 and then decrease by 2.2 per cent in 2020–2030, representing a 10 per cent decrease by 2020 and 12.1 per cent decrease by 2030 below the 1990 level (3.9 per cent decrease by 2030 below the 2010 level).

¹⁴ These assessments do not take into account the updated or new NDCs submitted by Parties to the UNFCCC in 2020.

¹⁵ FCCC/SBI/2020/INF.10 and Corr.1 and Add.1 and Add.1/Corr.1.

Figure 2

Historical and projected greenhouse gas emissions of Annex I Parties

Source: FCCC/SBI/2020/INF.10/Add.1 and Add.1/Corr.1, figure 14.

13. The UNEP *Emissions Gap Report 2019*¹⁶ focused on the progress of the G20 countries, which account for about 78 per cent of global emissions, towards meeting their Cancun pledges. Collectively they were on track to meet their Cancun pledges and overachieve them by about 1 Gt CO₂ eq per year. Individually, however, seven of them were projected to meet their pledges, whereas six were projected to miss them or were not exhibiting great certainty of achieving them. One presenter stated that the pledges are not sufficiently ambitious to establish a path to global emission levels in 2030 that are consistent with the well below 2 °C and 1.5 °C goals.

14. Additionally, it was projected in the AR5 that fulfilling the Cancun pledges would result in global aggregate GHG emissions of 54.69 Gt CO₂ eq in 2020, which is 7.6 per cent above the 2016 level (see figure 1); and if the 2010–2016 emission trend continued, it would be consistent with fulfilling the Cancun pledges. Regarding G20 countries' progress towards achieving their NDC targets, according to the UNEP report the outlook is mixed (see figure 3). While noting the difficulty of assessing the level of ambition in NDCs, an attempt was made to group the countries according to whether they are projected to meet their NDC targets with currently implemented policies alone or they need additional policies. According to UNEP, collectively they are not on track to meet their NDC targets for 2030.

¹⁶ UNEP. 2019. *Emissions Gap Report 2019*. Nairobi: UNEP. Available at <https://www.unenvironment.org/resources/emissions-gap-report-2019>.

Figure 3

Assessment of progress of the Group of 20 countries towards achieving the unconditional targets in their nationally determined contributions under current policies based on independent studies

Projected to meet the unconditional NDC target with currently implemented policies		Expected to meet the unconditional NDC target with additional policy measures and/or stricter enforcement of existing policies		Uncertain or insufficient information
Overachievement of the target by more than 15 per cent, suggesting a weak target	Overachievement of the target by less than 15 per cent	Projected emissions 0–15 per cent above the NDC target	Projected emissions 15 per cent or more above the NDC target	
<ul style="list-style-type: none"> • India (6 of 6 studies) • Russia (3 of 3 studies) ¹⁾ • Turkey (3 of 3 studies) 	<ul style="list-style-type: none"> • China (3 of 5 studies, one uncertain) ²⁾ • EU28 (1 of 3 studies, one uncertain) ^{1), 2), 3)} • Mexico (2 of 3 studies) 	<ul style="list-style-type: none"> • Australia (3 of 4 studies) ¹⁾ • Japan (2 of 3 studies) • South Africa (3 of 3 studies) ^{1), 4)} 	<ul style="list-style-type: none"> • Brazil (4 of 4 studies) • Canada (3 of 3 studies) ¹⁾ • Republic of Korea (3 of 3 studies) • United States of America (2025) (5 of 5 studies) ¹⁾ 	<ul style="list-style-type: none"> • Argentina (1 of 3 studies projected to meet the unconditional NDC; updated NDC in 2016) • Indonesia (3 studies disagree) • Saudi Arabia (2 studies disagree)

Source: UNEP. 2019. *Emissions Gap Report 2019*. Nairobi: UNEP. Available at <https://www.unenvironment.org/resources/emissions-gap-report-2019>.

Notes: (1) The assessment of progress was conducted by UNEP and did not take into account the updated or new NDCs submitted to the secretariat in 2020 by Parties such as Argentina, Australia, Brazil, the EU, Japan, Mexico, the Republic of Korea and the Russian Federation; (2) Turkey is not a Party to the Paris Agreement.

4. Global emissions gap

15. As shown in figure 4, under the “current policy” scenario, the increase in emissions by 2030 will be lower than under the ‘business as usual’ scenario (or the “2005-Policies” scenario). However, there is a significant gap between those scenarios and those compatible with 1.5 and 2 °C pathways.

16. According to UNEP, if Parties implement the unconditional elements of their NDCs, total global emissions will be slightly reduced, by about 4 Gt CO₂ eq, in 2030 compared with the emission level under the “current policy” scenario. If, in addition, they implement the conditional elements of their NDCs, total global emissions are estimated to be reduced by a further 2 Gt CO₂ eq. Nevertheless, there would still be a significant emissions gap between the latter “conditional NDC scenario” and the 2 °C pathway projected for 2030, amounting to 12–15 Gt CO₂ eq (see figure 4), and Parties would still not be on track to collectively reach the Paris Agreement temperature goals. Hence, emissions need to be reduced, compared with the level under the “current policy” scenario, by about 25 per cent by 2030 to bridge the gap to the 2 °C goal and by more than 50 per cent by 2030 to bridge the gap to the 1.5 °C goal.

17. The need for unprecedented efforts and short-term action to close the emissions gap was highlighted. Some Parties also highlighted that insufficient 2030 targets need to be identified and strengthened, and the policies that were most impactful in the pre-2020 period should be strengthened for 2030.

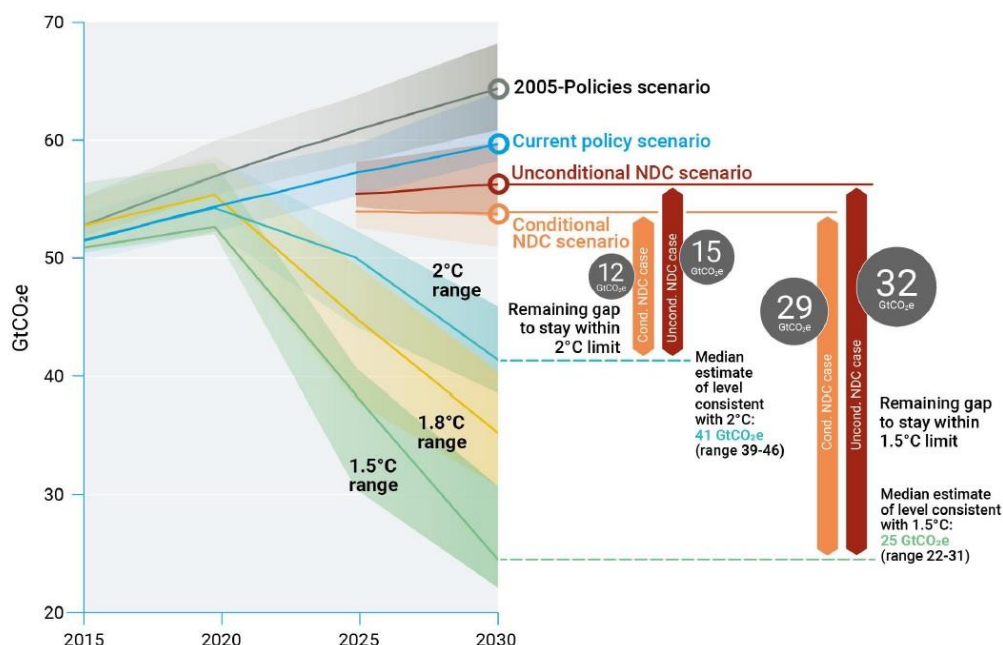
18. To ensure that the Paris Agreement goals are reached, some Parties mentioned the need to set longer-term targets and long-term strategies towards carbon neutrality and to use that horizon as the basis for setting mid-term targets that can be reflected in NDCs, highlighting that policies and actions must be based on the science.

19. One presenter highlighted the slow progress of Parties in submitting their new or updated NDCs in 2020. One Party stated that pre-2020 international cooperation enabled an increase in mitigation commitments.

20. Looking ahead, a few participants highlighted the need to tackle climate change and recovery from the COVID-19 pandemic together in order to ensure that recovery trends support low-emitting sectors. It was noted that commitments to net zero emissions by non-Party stakeholders are growing in spite of the impacts of COVID-19.

Figure 4

Global greenhouse gas emissions under different scenarios and the emissions gap by 2030



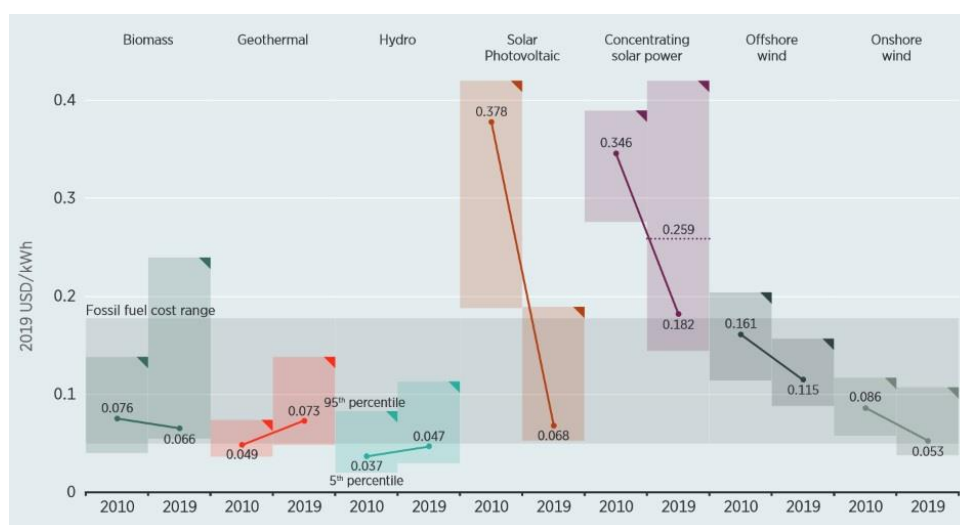
Source: UNEP. 2019. *Emissions Gap Report 2019*. Nairobi: UNEP. Available at <https://www.unenvironment.org/resources/emissions-gap-report-2019>.

5. Enablers of emission reduction

21. Two key examples of enablers of emission reduction are the falling cost of renewables and the efforts of non-Party stakeholders in driving climate ambition and action. One presenter highlighted the importance of Governments setting clear ambitious targets for accelerating innovation and deployment of technologies by non-Party stakeholders.

22. According to IRENA, the cost of renewables is falling and they have become mainstream in the energy transition. In 2018, around 180 GW new renewable power capacity was added to the global energy mix (see figure 5).

Figure 5
Falling cost of renewable energy



Source: IRENA. 2020. *Renewable Power Generation Costs in 2019*. Abu Dhabi: IRENA. Available at <https://www.irena.org/publications/2020/Jun/Renewable-Power-Costs-in-2019>.

23. In addition, there is an upward trend in employment in global renewable energy, which provided 11.5 million jobs worldwide in 2019. Of the total 50–58 million jobs in the energy sector, the share of jobs in renewables is growing dramatically, about three times faster than the share of those associated with traditional energy.

24. Of the Parties with renewable energy policies, 160 have renewable power targets in their national policies and plans, but only 106 included quantifiable targets for renewable energy in their NDCs (66 per cent of the NDCs submitted as at November 2020).

25. Furthermore, as noted by the high-level champions, non-Party stakeholders have been driving ambition and delivering action through a wide range of voluntary efforts; for example, as at November 2020:

(a) The global climate action portal registered 27,174 climate actions by 18,279 actors around the world, involving more than 10,000 cities, around 4,000 companies and more than 1,000 investors, which represents a significant approximately three-fold increase in recognized actions and actors since COP 21 in 2015;

(b) Significant growth in disclosure had been seen in the past few years, with over 9,000 businesses disclosing their environmental impact in 2020, representing a 64 per cent increase since 2016;

(c) Since the launch of the Science Based Targets initiative,¹⁷ over 1,000 companies spanning 60 countries and nearly 50 sectors, with a combined market capitalization of over USD 15.4 trillion, had been working under the initiative to reduce their emissions;

(d) Many actors were taking part in the Race to Zero campaign,¹⁸ involving 22 regions, 452 cities, 1,101 businesses, 549 universities and 45 of the biggest investors aiming for net zero emissions;

(e) City mayors had started announcing targets for banning internal combustion engines. For example, in the United Kingdom and France diesel cars are to be banned from 2040 and 2050, respectively; and in California the sale of internal combustion engine vehicles will be banned from 2035.

¹⁷ See <https://sciencebasedtargets.org>.

¹⁸ See <https://unfccc.int/climate-action/race-to-zero-campaign>.

B. Implementation and ambition in relation to adaptation

1. Evolution of findings of Intergovernmental Panel on Climate Change assessments

26. The AR4 highlighted the role of adaptation in reducing vulnerability to climate change and the links between climate responses and sustainable development. The 2012 IPCC Special Report on Managing the Risks of Extreme Events and Disasters¹⁹ included inputs from physical climate scientists, climate impact specialists and the disaster management community. It formulated risk as a function of climate hazards, exposure to such hazards and the vulnerability of the underlying systems, and noted that addressing the underlying causes of vulnerability, including structural inequalities, can facilitate responding to climate change.

27. The AR5 introduced limits to adaptation and the complementarity of adaptation and mitigation underpinned by common enabling factors, such as institutions, innovation, and behavioural and lifestyle choices.

28. The SR1.5 identified that climate impacts and therefore the need for adaptation will be significantly reduced with global warming of 1.5 °C rather than 2 °C. It drew attention to the need for rapid far-reaching transitions of all systems (energy, land, urban and infrastructure, and industrial). Furthermore, in terms of sustainable development, it is the first report to systematically mark response options against the 17 Sustainable Development Goals.

29. Published in 2019, the IPCC Special Report on Climate Change and Land²⁰ highlighted that on all modelled pathways compatible with limiting warming to 1.5 °C or well below 2 °C land-based mitigation and land-use change are required. The report accentuated that response measures should be taken on the basis of existing knowledge and with the involvement of local stakeholders, given the complexity of existing land tenure arrangements. Finally, the IPCC Special Report on the Ocean and Cryosphere,²¹ also published in 2019, documented current and projected impacts of climate change on sea level rise and global warming on the shrinking of the cryosphere, stating that the shrinking cryosphere in the Arctic and high mountain areas has led to predominantly negative impacts on food security, water resources, water quality, livelihoods, health and well-being, infrastructure, transportation, tourism and recreation, as well as on the culture of human societies, particularly for indigenous peoples.

2. Climate change impacts, particularly extreme weather events

30. According to IFRC, the number of weather- and climate-related disasters has been increasing since the 1960s and has risen by almost 35 per cent since the 1990s. In the past 10 years, 83 per cent of all natural disasters have been caused by extreme weather- or climate-related events, such as floods, storms and heatwaves, affecting 1.7 billion people around the world and taking the lives of more than 410,000, the vast majority in low- or lower-middle-income countries.

31. A group of Parties highlighted the increasing pressure the countries are under due to extreme climate-related events: in North and West Africa, flash floods and heavy rainfall are resulting in death, displacement of thousands of people and damage to infrastructure; in Southern Africa, cyclones are causing the deaths of thousands of people and the destruction of property; in East Africa, extreme drought is affecting livestock, crops, wildlife and the

¹⁹ IPCC. 2012. *IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. C Field, V Barros, T Stocker, et al. (eds.). Cambridge and New York: Cambridge University Press. Available at <https://www.ipcc.ch/report/managing-the-risks-of-extreme-events-and-disasters-to-advance-climate-change-adaptation/>.

²⁰ IPCC. 2019. *IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems*. PR Shukla, J Skea, E Calvo Buendia, et al. (eds.). Available at <https://www.ipcc.ch/report/srccl/>.

²¹ IPCC. 2019. *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*. H-O Pörtner, DC Roberts, V Masson-Delmotte, et al. (eds.). Available at <https://www.ipcc.ch/srocc/home/>.

energy sector; and in Central Africa, climate change is causing significant environmental degradation and loss of biodiversity in the Lake Chad basin.

32. In 2020, climate extremes included the Australian bushfires and the record-breaking European heatwave, which caused more than 2,500 deaths in the United Kingdom, more than 1,900 in France and more than 650 in the Netherlands.

33. However, global mortality statistics for disasters indicate that more lives are being saved now than in the past. For example, in 2020, millions of people were successfully evacuated from Bangladesh and India before Cyclone Amphan hit amid the challenging circumstances of the COVID-19 crisis, whereas in the 1970s hundreds of thousands of lives might have been lost under similar circumstances. Nevertheless, one presenter expressed deep concern from the humanitarian response perspective that responding to disasters at this scale is beyond the existing capacity and preparedness of humanitarian workers.

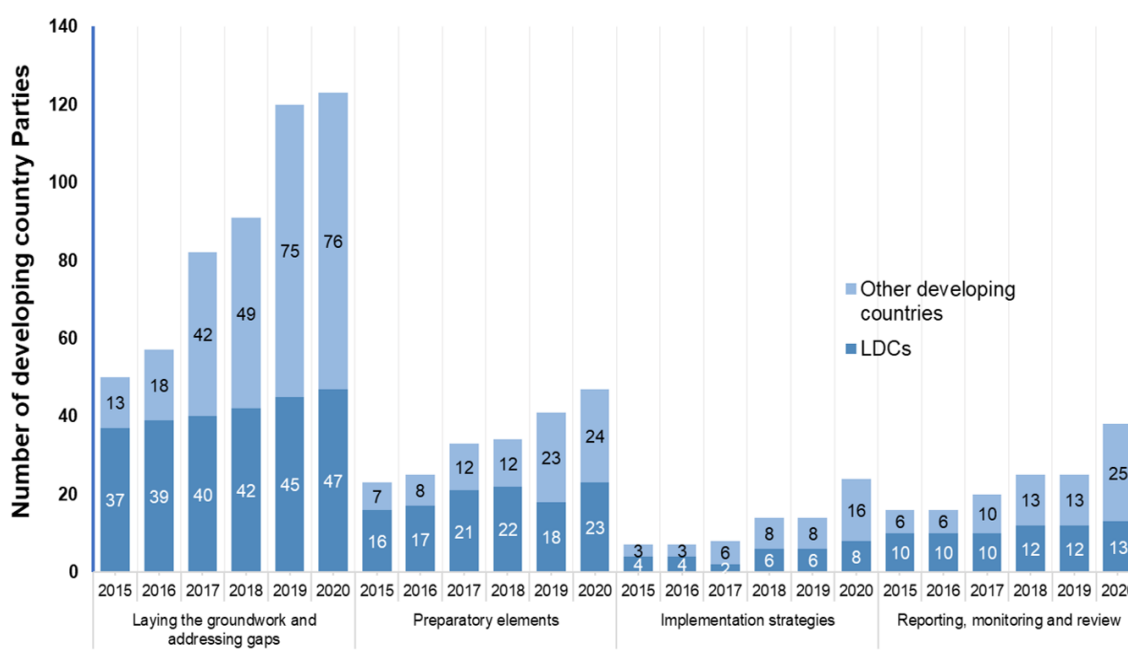
3. Progress of implementation

34. Developing countries' progress in the process to formulate and implement NAPs has been gradual since it was established in 2010. However, progress has picked up pace since 2015, with countries steadily producing NAPs and the number of countries undertaking the process expected to increase rapidly in 2021. Figure 6 illustrates the progress in the process in 2015–2020 across the stages of NAP preparation, implementation and reporting.

35. As at November 2020, 125 developing countries were formulating and implementing NAPs. Provision of financial support through the GCF Readiness and Preparatory Support Programme has been steadily increasing across all regions: as at November 2020, 85 countries had submitted proposals to the GCF for accessing NAP readiness support (and 56 proposals had been supported) and 11 countries had submitted 23 project proposals to the GCF for accessing funding for NAP-related actions.

Figure 6

Developing countries' progress in the process to formulate national adaptation plans



Source: Based on the data in document FCCC/SBI/2020/INF.13, table 1.

36. Regarding developed countries' progress in adaptation, one Party mentioned that it has legislated for the promotion of climate change adaptation, and is actively working on more effective climate change adaptation measures that promote coordination among the relevant ministries and between the Government and local communities and enrich and foster scientific knowledge on the impact of climate change. International cooperation on crucial climate change adaptation in developing countries includes sharing information and experience through, for example, the Asia-Pacific Climate Change Adaptation Information

Platform, providing assistance for human resources development and providing financial support.

37. The EU adaptation strategy was adopted in 2013 to prepare member States for existing and future climate impacts. All member States have a national adaptation strategy and/or plan in place. The evaluation of the EU strategy in 2018 showed that about 3,000 cities and towns in the EU had committed through the Covenant of Mayors to enhancing their climate resilience. Covenant signatory countries reporting being at high risk of heatwaves and drought have a combined population of 124 million and 127 million people, respectively.

38. Since the adoption of the EU adaptation strategy, EU policies have, to a large extent, mainstreamed climate adaptation and addressed resilience concerns. A key instrument for the EU's establishment of climate-resilient infrastructure is regional policy. Large amounts of funding (e.g. through the European Regional Development Fund and the Cohesion Fund) are dedicated to infrastructure investments, primarily in the newer member States. As part of the European Green Deal, the EU has stepped up its efforts to harness synergies between climate change adaptation, disaster risk management, environmental policies and resilience, both domestically and internationally, by supporting climate action in partner countries.

4. Challenges

39. Determining how ambitious adaptation action has been so far is a challenge. It was noted that, as more climate impacts are experienced, adaptation responses and related investment for reducing the impacts of climate change and variability are likely to become a precondition for peace and stability; and yet there is no single metric for measuring progress on adaptation. In terms of quantification, the gap in adaptation finance, explained by UNEP at the round table as the difference between needs expressed in costs and the available adaptation finance, could constitute a tangible quantifiable component of pre-2020 adaptation.

40. Another identified challenge is ensuring that adaptation is integrated into development plans, given that adaptation and sustainable development share common objectives and are closely linked in all countries, but particularly in developing countries.

41. There has been an increase in integrated risk management approaches, but the associated institutional and financial mechanisms are siloed. Possible interventions to address this disconnection include strengthening capacity for holistic planning across government departments as well as vertically including local governments, the private sector and civil society actors.

42. There is growing concern expressed in the scientific literature about the compounding and cascading nature of climate change risks and impacts. The combined impacts of interconnected events in combination with vulnerable infrastructure, communities and societies affect the ability of individuals, communities and governments to adapt. Moreover, another source of concern is the need to address adaptation and loss and damage in a manner that is equitable to all.

5. Opportunities

43. A shift in thinking is necessary to bring the Sustainable Development Goals, the Sendai Framework for Disaster Risk Reduction 2015–2030, adaptation and health risk management under the umbrella of risk-informed development across different government departments and different international organizations for building comprehensive long-term resilience across societies. Improved coordination yields multiple benefits and enhances the cost-effectiveness of cross-cutting measures.

44. Common data sets are required to account for all disaster-related causalities and measure progress in emergency response. A single data set that integrates data in relation to the Sustainable Development Goals, the Sendai Framework goals and the Paris Agreement goals could be most effective and efficient given the scarce resources.

45. Determination and urgent action based on cooperation and solidarity are needed to transform economies and production and consumption systems in order to prevent

catastrophic climate change and adapt to the unavoidable impacts of climate change in the long term.

46. In recent years the capabilities of non-State actors, particularly cities and businesses, have increased in reaching massive audiences around the world directly with a view to connecting individual commitments with more ambitious climate action. There is also great capacity for education, by engaging universities and schools, to be a tool for increasing the pace and ambition of climate action in local communities. In addition, there are some promising initiatives that link Governments and non-State actors (e.g. the Risk-informed Early Action Partnership, InsuResilience, Partners for Resilience) but more are needed.

47. According to a recent technical paper by the Adaptation Committee,²² the availability and accessibility of data on adaptation are increasingly improving but there are still several critical data gaps. Stronger international cooperation, coordination and support are needed to manage the growing amount of data and data products, ensure their quality and match production of data with specific national and local adaptation needs.

48. It was suggested that public finance for adaptation should be enhanced, including through new and additional innovative resources. One group of Parties proposed directing a share of the proceeds from the market-based mechanisms under Article 6, paragraphs 2 and 4, of the Paris Agreement to support adaptation, primarily to the Adaptation Fund, which now also serves the Paris Agreement.

49. Another proposal was to strengthen the institutional set-up for adaptation under the UNFCCC, including by enhancing provision of financial support to constituted bodies and mechanisms dealing with adaptation and addressing loss and damage.

C. Implementation and ambition in relation to means of implementation

1. Climate finance

50. Through the Cancun Agreements in 2010, developed country Parties committed, in the context of meaningful mitigation action and transparency on implementation, to a goal of mobilizing jointly USD 100 billion per year by 2020, from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources, to address the needs of developing countries (see the box below). In terms of bilateral support provided, as shown in figure 7, reported public climate finance has continually increased, averaging USD 48.7 billion per year in 2017–2018, which is a 9.9 per cent increase since 2015–2016. In 2017–2018, climate-specific support constituted the largest share of financial support provided (USD 36.2 billion), while the share of core or general support (i.e. support provided to multilateral and bilateral institutions that is not considered climate-specific) has been decreasing over time. Two thirds of reported public climate finance provided in 2017–2018 flowed through bilateral, regional and other channels, while the rest was channelled through multilateral institutions and funds, such as the GCF.

Developed country commitments in the context of their long-term climate finance goal

The EU member States committed to the USD 100 billion goal. EU climate finance has systematically increased and the EU is the largest contributor of public finance to developing countries, having contributed around EUR 22 billion in 2018, more than double the amount provided in 2013. The EU is also the top contributor to multilateral funds and mechanisms. In the initial resource mobilization period of the GCF, about half of the resources pledged were from the EU and its member States. The EU is a strong supporter of the Global Environment Facility and the Adaptation Fund, providing about 95 per cent of all the voluntary funding to the latter. The EU plays a leading role in the area of sustainable finance and is promoting ambitious and reliable international standards

²² Adaptation Committee. 2020. *Data for adaptation at different spatial and temporal scales*. Bonn: UNFCCC. Available at <https://unfccc.int/documents/267555>.

through its sustainable finance action plan, taking steps to align financial flows with low-carbon and climate-resilient development.

Switzerland has been steadily increasing its provision of support to developing country Parties for climate action since 2009 and its provision of public climate finance in recent years. Its share of the USD 100 billion goal was estimated at between USD 450 million and 600 million annually by the Federal Council, taking into account the national economic capacity and the emissions directly caused by the country. The amount provided by Switzerland grew from USD 175 million in 2012 to almost USD 554 million in 2018. Switzerland is committed to providing predictable climate finance through its contributions to multilateral funds, such as the GCF and the Global Environment Facility.

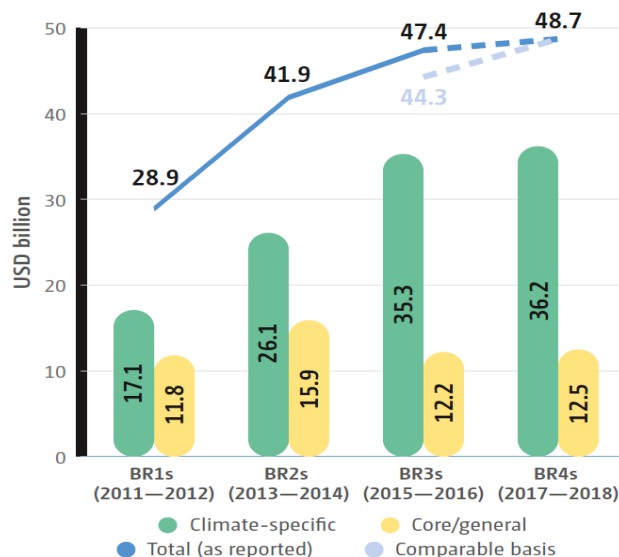
Japan had committed to providing public and private climate finance amounting to about 1.3 trillion yen (about USD 12 billion) in 2020. In 2018, it mobilized about 1.39 trillion yen (about USD 13 billion). For the first replenishment of the GCF, Japan pledged up to USD 1.5 billion, about 15 per cent of the total pledges. Of Japan's climate finance in 2018, about 150 billion yen (about USD 1.36 billion) was for adaptation. Given the country's experience of dealing with disasters, Japan is promoting disaster risk management, establishment of early warning systems and development of relevant human resources in developing countries, such as the Pacific Islands. Additionally, Japan is focusing on mobilizing private finance for adaptation, including climate risk finance, and continues to work on scaling up adaptation support.

Australia collaborates with other countries in supporting global climate action and is committed to the USD 100 billion goal. In 2016–2020 Australia invested over USD 400 million in the Pacific Islands, exceeding its USD 300 million commitment. Its investments in the Pacific have been focused on responding to and reducing further impacts of climate change, such as by investing in renewable energy and resilient infrastructure.

51. More broadly, in the context of the USD 100 billion goal, the 2019 OECD report on developed countries' climate finance for climate action in developing countries for 2013–2017²³ showed progress: climate finance provided to developing countries reached USD 71.2 billion in 2017, up from USD 58.6 billion in 2016.

Figure 7

Total climate finance contributions, including climate-specific and core or general support, in 2011–2018 as reported in biennial reports



Source: FCCC/SBI/2020/INF.10/Add.1 and Add.1/Corr.1, figure 26.

²³ OECD. 2019. *Climate Finance Provided and Mobilised by Developed Countries in 2013–17*. Paris: OECD Publishing. Available at <https://doi.org/10.1787/39faf4a7-en>.

52. Additionally, there was an increase in 2011–2012 and 2013–2014 in climate-specific public finance provided through multilateral channels, comprising climate-specific public finance through dedicated climate funds under the Convention and other channels as well as financial contributions categorized as core or general, followed by a decrease to close to previous levels in 2015–2016. A large part of those resources flowed through financial channels outside the Convention. Public climate finance provided through bilateral, regional and other channels increased by 65 per cent in 2011–2012 and 2013–2014 and continued to increase by a further 35 per cent up to 2016. Since 2010, about two thirds of reported public finance has been for mitigation, about a fifth for adaptation and the rest for cross-cutting and other.

53. According to UNEP, USD 22.5 billion in international public finance was provided for adaptation in 2014 and the amount has been steadily increasing since. The increasing interest in hydrometeorological investments was highlighted, including for early warning systems, and in mainstreaming risk management, including forecast-based financing, in climate planning architecture, such as NAPs and NDCs.

2. Multilateral development banks' progress on climate finance, with a focus on the World Bank²⁴

54. In terms of strategies, plans and targets, the MDBs released their approach to aligning their activities with the Paris Agreement goals in 2016. The approach is based on six building blocks identified as the core areas for such alignment, including alignment with mitigation goals and with adaptation and climate-resilient operations. The World Bank has ensured that its country partnership agreements incorporate climate and disaster risk considerations and reflect priorities identified in NDCs or other relevant climate policies. Such alignment is a learning process with challenges yet to be addressed. One such challenge relates to projects whose alignment is not clear-cut, such as transportation projects or natural gas projects that are very context specific, as opposed to coal projects where there is consensus on them not being aligned with the Paris Agreement goals. Another challenge relates to the need for long-term strategies to help articulate whether a particular type of project fits into a technology or fuel transition, or whether a project is clearly misaligned because it goes against what a country has articulated in its strategy.

55. The International Monetary Fund and the World Bank have long worked with Governments on risk assessments for the purpose of maintaining budgetary and economic stability. In 2017, they began broadening their frameworks to assessing the adequacy of government policies for preserving macro fiscal stability in the face of disaster and climate risks, including by running several pilots in small island developing States, and they are now considering ways to broaden this work in other geographic and economic contexts.

56. In October 2015, the World Bank announced its first climate finance targets for its operations, and it beat its target for 2020 of at least 28 per cent of its development finance support also contributing to delivering climate co-benefits three years early. The World Bank expects to release an updated climate change action plan covering 2021–2025 in 2021, which will feature more ambitious financing targets and strategies in order to expand its climate-focused operations to non-traditional sectors, including health and adaptive social protection.

57. In terms of macro trends related to implementation of climate action, there is growing interest in climate framework legislation that creates legal obligations for ministries and possibly even subnational governments. Such comprehensive legislation would build investor confidence by providing some clarity on the depth or breadth of the durability of government commitment to climate action, and guidance on what it can include being developed by the Bank should be completed in 2021.

58. In a similar vein, there is an increasing focus on NDC implementation efforts, employing a whole-of-government approach. The support provided by the World Bank in 2016–2017 was often specific to a ministry or sector in keeping with client requests; but the

²⁴ The update provided by the representative of the World Bank at the round table was based on considerations pre COVID-19.

Bank is now working with clients to prioritize engagement at the highest levels of government and with broad participation including the private sector and civil society.

59. Finance ministries are sometimes less engaged than other institutions in discussions on implementation of climate action. Given that climate change puts future economic growth and prosperity at risk, the Coalition of Finance Ministers for Climate Action, currently under the leadership of Chile and Finland, emphasized the steps that finance ministries can take to influence climate action, including through climate-related tax and subsidies, public financial management practices and the integration of climate risk into economic forecasting models.

60. Furthermore, private investors are showing growing interest in climate risk disclosure and increasing reporting of climate-related financial information.

61. With regard to (the impacts of) investments, since 2016 the World Bank has committed USD 83 billion in climate finance, making it the largest multilateral funder of climate investment in developing countries. Furthermore, the Bank has achieved parity in its support for adaptation and mitigation. As an example, in fiscal year 2019 the International Finance Corporation, the private sector arm of the World Bank Group, invested USD 2.6 billion in climate-smart projects and crowded in USD 3.2 billion in private finance for green buildings, climate-smart agriculture, smart cities and clean energy.

62. The World Bank has established new dedicated grant facilities to pay for climate-related capacity-building, analytical work and project preparation, which led to dramatically increasing staff training on climate issues and new tools and data sets being available to all teams. In addition, regional teams developed their own priorities and strategies that reflected their unique interaction with clients on the ground.

63. For several years, the World Bank has been working with other MDBs to better assess not only the quantity but also the impact of investments, namely how well individual projects align with clients' commitments under the Paris Agreement.

3. Finance-related challenges and concerns

64. Developing countries' main concerns in relation to climate finance include the gap between finance provided and needed, lack of clarity on progress towards the USD 100 billion goal, the provision of more loans than grants, the level of funding for mitigation versus adaptation, measuring success in terms of fund disbursement rather than its long-term impact, and funds not reaching those most in need.

65. While acknowledging developed countries' efforts to fulfil their climate finance commitments, developing countries' expressed concern about the gap between the scale of developed countries' finance commitments and the USD 100 billion goal. One group of Parties presented findings of the Standing Committee on Finance from the reports on its biennial assessment and overview of climate finance flows,²⁵ according to which the total climate finance flows mobilized by developed countries were USD 28.755 billion in 2011, USD 28.863 billion in 2012, USD 25.4 billion in 2013, USD 26.6 billion in 2014, USD 33 billion in 2015 and USD 38 billion in 2016. Another group of Parties, while echoing this concern, urged developed countries to establish a specific road map for bridging the finance gap.

66. It was stressed that the lack of systematic assessment of developed countries' commitment to the USD 100 billion goal leads to lack of clarity on their overall progress.

67. Since most of the financial support provided by developed countries comes from official development assistance, with a significant proportion in the form of loans, this will lead to greater indebtedness for developing countries. According to one Party, only 37 per cent of what the OECD reports as climate finance provided by developed countries can be considered to be grant-based climate finance, with the rest being loans.

68. Although international public finance has been steadily increasing over the past decade, there is a significant gap between the adaptation needs expressed in costs and the

²⁵ See <https://unfccc.int/topics/climate-finance/resources/biennial-assessment-of-climate-finance>.

adaptation finance available. According to the UNEP *Adaptation Gap Report 2020*,²⁶ the likely cost of meeting adaptation needs in developing countries could be up to USD 300 billion by 2030 and USD 500 billion by 2050. In relation to adaptation finance:

(a) One Party mentioned that, since resource allocation has been focused on mitigation, adaptation finance is lagging far behind mitigation finance. A group of Parties emphasized that securing loans for adaptation is not easy. Another group of Parties estimated a USD 3 trillion finance gap for implementing the full scope of African NDCs, stating that African countries are contributing some 20 per cent of the annual cost of adaptation from their national budgets to meet their adaptation needs;

(b) One group of Parties indicated that the private sector is less engaged in implementing adaptation: while it plays a role in building the resilience of its infrastructure for its own purpose, it does not tend to engage directly in implementing adaptation;

(c) One Party mentioned that lack of a clear global goal and effective mechanisms for adaptation have resulted in unsustainable support for developing countries.

69. Most finance providers measure success in terms of the amount of finance disbursed, instead of the long-term impact on the ground, which means that the actual impact on the ground is not sustainable. Studies have shown that not more than 15 per cent of the climate finance provided is actually reaching local communities because of the number of intermediaries.

70. In the context of disaster risk reduction, it was highlighted that current efforts are largely focused on planning; and despite progress in saving lives, less has been done to save livelihoods. A lot of finance is provided for long-term planning, but it is not reaching those most at risk or not reaching them in a timely manner. Especially the most vulnerable communities are often not benefiting from the limited finance that is being spent on adaptation and risk management, with the most at-risk countries, such as Afghanistan, Myanmar, Somalia and South Sudan, receiving less than 3 Swiss francs per person.

4. Support for technology development and transfer, and capacity-building

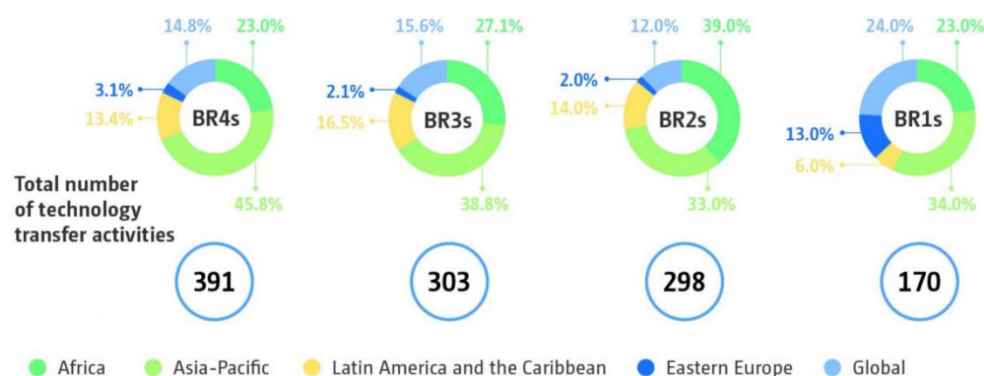
71. According to the BRs, support for technology development and transfer and for capacity-building has increased significantly in recent years. In 2017–2018, developing countries received assistance mainly for establishing institutional, legal and policy frameworks for implementing climate action that will contribute to their NDCs, and for setting up and strengthening arrangements for assessing and reporting on those actions under the enhanced transparency framework under the Paris Agreement. While most support for technology development and transfer has targeted mitigation, support for adaptation has shown an upward trend in recent years. The key sector targeted for mitigation has been the energy sector, while agriculture and water have been the priority sectors for adaptation. Most energy projects have focused on promoting energy efficiency and renewable energy.

72. Figure 8 shows that, since the BR3s, Asia-Pacific has received the largest share of the reported technology support provided, and the level of technology support provided for Africa and for Latin America and the Caribbean has not changed significantly.

²⁶ UNEP. 2021. *Adaptation Gap Report 2020*. Nairobi: UNEP. Available at <http://www.unenvironment.org/resources/adaptation-gap-report-2020>.

Figure 8

Distribution by region of technology transfer activities reported by Parties included in Annex II to the Convention in their biennial reports



Source: FCCC/SBI/2020/INF.10/Add.1 and Add.1/Corr.1, figure 36.

73. Adaptation has continued to be a priority for capacity-building activities, with many projects aimed at improving the climate resilience of existing and new infrastructure and promoting green transformation in agriculture and forestry. The focus of capacity-building for mitigation has been on improving monitoring and evaluation of mitigation actions. Africa and Asia-Pacific have received the largest share of the capacity-building support provided for adaptation, while capacity-building support provided for mitigation has been primarily multiregional or global.

5. Challenges related to technology development and transfer, and capacity-building

74. Referencing the findings of a review, one Party indicated that most technology transfer and capacity-building is specific to either a sector or an area and has a limited timespan. Another Party indicated that existing channels for capacity-building support are inadequate in scale.

75. In relation to the availability and reduced cost of green technologies, one Party mentioned the challenge of developing policies and measures for accelerating the adoption of the technologies through appropriate means of technology transfer so that all countries can take advantage of them.

76. One group of Parties stated that African countries affected by extreme climate events are lacking climate finance support, access to climate technologies and the human and institutional capacities to effectively deal with their implications alongside existing development challenges.

D. General remarks

77. According to UNEP, Annex I Parties are collectively on track to meet their Cancun pledges, which is consistent with the projections in the AR5. Individually, not all G20 countries are on track, and some Annex I Parties' emissions increased up to 2020. In terms of NDC targets, according to UNEP the picture is mixed: not all countries are projected to meet their NDC targets for 2030 with currently implemented policies alone and so additional action is required.²⁷

78. It was noted that neither the Cancun pledges nor NDC targets are sufficiently ambitious to establish a path to limiting warming to 1.5 or 2 °C in line with the goals of the Paris Agreement, which casts doubt on the feasibility of limiting warming in line with those goals with that level of ambition. Hence, the need for further ambitious science-based commitments was also noted.

²⁷ An initial version of the NDC synthesis report was published on 26 February 2021, contained in document FCCC/PA/CMA/2021/2 and Add.1–3.

79. Enablers of emission reduction include increasing the efficiency and cost-effectiveness of renewable energy technologies, promoting renewable energy through policies and plans, and enhancing support for mitigation action.

80. The significant rise in non-Party stakeholders' climate ambition and action is contributing to accelerating emission reduction and instilling hope that a change of pace in terms of ambition and implementation could be realized.

81. Adaptation has progressed in specific aspects, but assessing adaptation progress as a whole remains challenging in the absence of an agreed holistic approach:

(a) The science of adaptation has evolved over the past decade towards a better understanding of interwoven systems, encompassing climate hazards, exposure, structural inequalities, behavioural and lifestyle changes, and stakeholder engagement, to name a few;

(b) Despite more extreme weather events and climate impacts being experienced, more lives are now being saved than would have been in the past under similar circumstances. The compounding and cascading nature of climate change impacts, however, make responding to such impacts more difficult owing to the depleting capacity to buffer them;

(c) Progress in formulating and implementing NAPs has been gradual but a rapid increase in the number of countries undertaking the process is expected in the near future;

(d) Given their common objectives, integrating adaptation and sustainable development will contribute to building comprehensive long-term resilience across societies.

82. International cooperation on adaptation has increased, with all countries recognizing the need for climate change adaptation, but more action and support is needed.

83. According to the compilation and synthesis of BR4s, the provision of climate finance has increased. However, while acknowledging developed countries' commitment to the USD 100 billion goal (e.g. in 2018 the EU contributed around EUR 22 billion and Japan mobilized about USD 13 billion), developing countries expressed concerns regarding, for example, the adaptation finance gap and the majority of financial support being allocated as loans. The importance of more ambitious action in the context of the USD 100 billion goal was underlined.

84. The track record of MDBs in terms of providing climate finance provides reason for optimism: the MDBs released the approach to aligning their activities with the Paris Agreement goals in 2016; and the World Bank has committed USD 83 billion in climate finance since 2016 and has achieved parity in its support for adaptation and mitigation for the past three years, and more ambitious targets are expected in its forthcoming climate change action plan. It is clear, however, that more finance is needed than is being provided, and concerns remain about the availability, transparency, composition, disbursement and targeting of finance.

85. The co-chairs concluded the round table by thanking everyone for their participation and reminding them of the scientific evidence presented. Finally, they highlighted a key message that emerged from the discussions: the importance of all actors increasing the ambition of their commitments in relation to emission reduction, adaptation and means of implementation.