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Subsidiary Body for Implementation

Compilation and synthesis of fourth biennial reports of Parties included in Annex I to the Convention

Report by the secretariat

Executive summary

Summary

This report contains a summary of the compilation and synthesis of the fourth biennial reports submitted to the secretariat by Parties included in Annex I to the Convention. It highlights key findings in relation to quantified economy-wide emission reduction targets; progress towards those targets, including information on mitigation actions and their effects, and estimates of emission reductions and removals and the use of units from market-based mechanisms and land use, land-use change and forestry activities; greenhouse gas emission trends and projections; and the provision of financial, technological and capacity-building support to developing country Parties.

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Abbreviations and acronyms

Annex I Party	Party included in Annex I to the Convention
Annex I Party not included in Annex II	Party included in Annex I to the Convention that is not included in Annex II to the Convention
Annex II Party	Party included in Annex II to the Convention
BR	biennial report
COP	Conference of the Parties
CO ₂ eq	carbon dioxide equivalent
CTF	common tabular format
EIT Party	Party with economy in transition
EU	European Union
EU ETS	European Union Emissions Trading System
GHG	greenhouse gas
LULUCF	land use, land-use change and forestry
MBM*	market-based mechanism
NDC	nationally determined contribution
non-Annex I Party	Party not included in Annex I to the Convention
non-EIT Party	Party that does not have an economy in transition
OECD	Organisation for Economic Co-operation and Development
PaMs	policies and measures
SDG	Sustainable Development Goal
WAM	‘with additional measures’
WEM	‘with measures’

* Used exclusively in figures.

I. Mandate and approach

1. COP 17 decided that developed country Parties should submit their BRs two years after the due date of a full national communication. BR4s were due for submission by 1 January 2020. COP 17 also decided that developed country Parties should use the “UNFCCC biennial reporting guidelines for developed country Parties” and the CTF for those guidelines for preparing their BRs.¹

2. In addition, COP 17 requested the secretariat to prepare compilation and synthesis reports on the information reported by Parties in their BRs.² The latest report is contained in document FCCC/SBI/2020/INF.10/Add.1, which compiles and synthesizes information provided in the submitted BR4s. This report contains an executive summary of that information.

3. For the compilation and synthesis of BR4s, the process of refining the analytical approaches continued with the aim of presenting an accurate and balanced picture of key trends in Parties’ climate actions and their underlying drivers. The main changes compared with the compilation and synthesis of BR3s³ include:

(a) An increased focus on how Parties’ climate actions and provision of support relate to their post-2020 targets and strategies, including a more comprehensive description of Parties’ midterm and long-term targets and strategies and implemented PaMs as well as the outlook for achieving those targets;

(b) More information on the drivers of emission trends and projections, with a particular focus on the Parties with the highest shares of the total emissions reported across the BR4s. In an attempt to further nuance the analyses of the GHG trends and projections of Annex I EIT Parties and non-EIT Parties, the increasing convergence in trends between the two sets of Parties has been addressed;

(c) Some revision of the presentation of the financial data stemming from Parties improving their reporting approaches (e.g. more detailed sectoral allocation of climate finance) or improving their data-collection processes (e.g. reporting on private finance leveraged as a result of public climate finance). The section on technology transfer has been more closely aligned with the reporting elements per the “UNFCCC biennial reporting guidelines for developed country Parties”. The information presented on capacity-building projects supported has also been enhanced, including on how the capacity-building support provided responds to the emerging needs of developing countries and on the integration of gender considerations into capacity-building.

II. Key messages from the compilation and synthesis of fourth biennial reports

4. **Annex I Parties are progressing towards their 2020 emission reduction targets, but gaps to those targets remain for some.** All Parties’ emissions in 2017 were below their base-year level, which in many cases also means that they have already achieved their 2020 targets. However, for a number of Parties whose emissions in 2017 were between their base-year level and targeted emission level for 2020, the emission reductions achieved by 2017 are not commensurate with the targeted reductions by 2020, in terms of either emission level or emission budget, as relevant. Those Parties are expected to make further efforts to meet their 2020 targets by strengthening implementation of existing PaMs, and some Parties have already indicated their intention to use units from market-based mechanisms and, if applicable, the contribution of LULUCF towards achieving their 2020 targets.

5. **The total GHG emissions of Annex I Parties in 2018 were lower by 13 per cent than in 1990, although there was a slight increase in emissions between 2016 and 2018.** The overall decline in GHG emissions since 1990 reflects primarily the impact of the

¹ Decision 2/CP.17, para. 13.

² Decision 2/CP.17, para. 21.

³ Contained in document FCCC/SBI/2018/INF.8/Add.1.

economic transformation of EIT Parties in the 1990s and the strengthening of climate change mitigation actions by almost all Parties in the second half of the 2000s and after 2010, including those promoting increased use of less carbon-intensive fuels and renewable energy in the electricity mix and improvement of energy end-use efficiency, as well as other PaMs in the agriculture and waste sectors. Those measures have been accompanied by modernizing and enhancing the efficiency of industrial processes and reducing livestock population. The slight growth in emissions observed since 2016 may be attributed to the increase in industrial production, continuous increase in fuel consumption for road transportation and higher demand for heating due to colder winters.

6. Parties are continuing to implement existing measures aimed at achieving their 2020 targets, while increasingly focusing on their post-2020 targets. Most Parties view their 2020 targets as a waypoint on the trajectory towards their midterm and long-term targets under the Paris Agreement. They are capitalizing on their experience in implementing PaMs by tailoring their portfolios to target the key emitting sectors and where PaMs are cost-efficient and can bring multiple benefits, such as health benefits and job creation, in addition to emission reductions. NDCs containing midterm targets and long-term low-emission development strategies, which in many cases contain long-term goals or targets (e.g. carbon neutrality or net zero emissions by 2050), feature prominently in Parties' reporting. Many Parties described their plans to transition to low-emission economies and societies, with newly reported PaMs being part of their strategies for achieving their 2030 and 2050 targets. Long-term low-emission development strategies focus primarily on the energy and transport sectors. Key long-term policy objectives in these sectors include renewables becoming the main source of electricity while phasing out coal, and the electrification of building heating and road transport. Parties reported on new near-term actions needed to meet these goals, such as building infrastructure for electric transportation and scheduling retirement of coal power plants. A majority of Parties are or envisage using carbon pricing approaches in some form. Prominent examples of trading systems are the EU ETS, New Zealand Emissions Trading Scheme and Canada's new Output-Based Pricing System. Many Parties reported on combining carbon pricing approaches in the form of levies or taxes and trading systems.

7. The portfolio of PaMs is evolving to address Parties' midterm and long-term targets. In their BR4s Parties reported a total of 2,624 PaMs, with impacts reported for 37.7 per cent of them, totalling emission reductions of 3,811.47 Mt CO₂ eq.⁴ A trend of measures moving through a 'life cycle' is evident throughout the four biennial reporting cycles as successful actions are replicated and expanded, imperfect policies are reformulated and strengthened, and ineffective policies are discontinued. This is manifested in a higher share of planned and adopted, but not yet implemented, measures being reported in the BR4s compared with in previous BRs, and indicates that Parties have started planning actions towards achieving their post-2020 targets. For example, the EU ETS has been substantially revised for its fourth phase (2021–2030). Planning for achieving post-2020 targets also includes strengthening institutional structures and processes, for example with regard to

⁴ The approach to calculating the total impacts has changed since the report on BR3s. In this report, impacts reported in both the EU's BR and EU member States' BRs have been included in the totals. Previously, EU member States' reported impacts (excluding impacts related to the EU ETS) and the EU's reported impacts of the EU ETS (but no other measures) were included in calculating the totals in order to avoid double counting. However, the reporting in the EU's BRs focuses on EU-wide measures, while EU member States report domestic measures and some EU-wide measures. Despite this, there is generally good alignment with regard to reporting estimates of impacts of measures, so where EU member States report impacts of an EU-wide policy or measure, the EU does not report an estimate, and vice versa. This means that the approach used for the report on BR3s might have led to underestimation of the total impacts reported.

The Russian Federation did not submit a BR1 or report impacts of PaMs in its BR2. However, in the Russian Federation's BR3 and BR4, estimated impacts were reported for the Order of the President of the Russian Federation on the Reduction of the Greenhouse Gas Emissions (2013) and the Action Plan on the Provision of Greenhouse Gas Emission Reduction by 2020. The impacts of these two PaMs have not been included in the totals in this report, as they appear to overlap with two other measures, namely the Energy Strategy of the Russian Federation and the State Programme for the Development of Coal Mining.

mitigation planning, tracking progress against targets and evaluating the effectiveness of implemented PaMs.

8. **Continuing the current trend, the total GHG emissions of Annex I Parties are projected to slightly increase by 2020 compared with the 2017 level and decrease slightly thereafter towards 2030.** Projections made in 2017 (the most recent reported year in GHG emission inventories) show a 10.1 per cent decrease in total GHG emissions excluding LULUCF by 2020 compared with the 1990 level and a 1.5 per cent increase compared with the 2017 level under the WEM scenario, which takes into account implemented and adopted PaMs. Despite the increased scope and strengthening of mitigation actions for beyond 2020, total emissions under the WEM scenario are projected to decline by only 2.2 per cent between 2020 and 2030. This suggests that planned mitigation actions may not be sufficient to completely offset the impact of the underlying emission drivers, such as economic and population growth, and to drive emissions down. It may also suggest that the impacts of the planned mitigation actions have not been fully accounted for because such impacts will depend on the exact form of the legislation and regulations supporting implementation of such measures, which has yet to be finalized.

9. **Climate finance has continued to increase, reflecting a continued commitment to supporting the global transition to a low-emission and climate-resilient future.** As reported in the BR4s, total climate support reached an annual average of USD 48.7 billion in 2017–2018; on a comparable basis, this represents a 9.9 per cent increase over the previous biennium 2015–2016.⁵ Both Annex II Parties and Annex I Parties not included in Annex II⁶ provided quantitative or qualitative information on climate finance in their BR4s, on climate-specific support (funds targeted specifically at climate action) and core/general support (funds that are not specifically targeted at climate action). One third of the total support (an average of USD 16.4 billion per year over the biennium) was allocated through multilateral channels, with over half allocated to mitigation, followed by cross-cutting and adaptation. As previously, multilateral development banks represent the largest share of multilateral finance institutions for channelling climate finance. Multilateral climate finance funds, such as the Green Climate Fund, are now also attracting considerable funding, allowing them to channel expanded support for climate action in developing countries.

10. The BR4s demonstrate some new developments, including expanded use of innovative financial instruments such as insurance, a move towards more detailed sectoral reporting, improved tracking of private sector finance and the introduction of voluntary reporting on issues such as gender. Additionally, more Annex I Parties not included in Annex II reported on climate support provided to non-Annex I Parties in the BR4s than in any previous BRs. Parties also demonstrated ongoing efforts to expand their tracking and reporting of private sector finance leveraged by public investments, thereby helping to clarify the bigger climate finance picture.

11. **Support for technology development and transfer activities has increased significantly, providing a strong foundation for the transformational change envisioned in the Paris Agreement.** In their BR4s Parties reported 391 activities relating to technological support (29 per cent more than in the BR3s), with more than half supporting mitigation (56 per cent), a quarter supporting adaptation (26 per cent) and the remaining supporting cross-cutting actions (a similar pattern to that presented in the BR3s). Annex II Parties highlighted their efforts to fully respond to developing country Parties' needs as identified by 53 non-Annex I Parties in their technology needs assessments and contained in the fourth synthesis report on technology needs.⁷ Deploying mature technologies remained the predominant supported activity, while support for technology research and development and demonstration activities has increased since the BR3s, in line with the need to support research and development and facilitate access to technology highlighted in the Paris

⁵ The report on the compilation and synthesis of BR4s includes financial information from the 22 Annex II Parties that had submitted their BR4s by October 2020. Previous compilation and synthesis reports include data from the BRs of 24 Annex II Parties, which limits comparability of the financial information reported.

⁶ See <https://unfccc.int/parties-observers> for an explanation of the classification of Parties by their commitments.

⁷ FCCC/SBI/2020/INF.1.

Agreement. Asia-Pacific continued to benefit most from the reported technology support, with 46 per cent of all reported technology support activities focusing on that region.

12. **Capacity-building support has increased, reaffirming the commitment of Annex I Parties to supporting successful implementation of the Convention and the Paris Agreement.** In the BR4s, 686 capacity-building activities were reported, a significant increase (by 77.3 per cent) on the 387 activities reported in the BR3s. The reported capacity-building activities cover all 15 priority areas outlined in the framework for capacity-building in developing countries established under decision 2/CP.7. Continuing the trend observed from the BR3s, the most significant share of capacity-building was for adaptation (40 per cent) and was mostly focused on integrating climate resilience into existing and new infrastructure or on promoting green transformation in agriculture and forestry. Mitigation accounted for 28 per cent of capacity-building, primarily aimed at strengthening monitoring and evaluation. Geographically, a majority of the capacity-building support for adaptation was provided to the Asia-Pacific and African regions. Mitigation support was primarily provided for multiregional or global projects.

13. **Well-established and -functioning systems for ensuring transparency of action and support have helped to enhance quality of reporting and domestic policymaking.** These systems are supported by domestic institutional frameworks and international technical reviews under the UNFCCC, thereby laying the groundwork for a successful transition to the enhanced transparency framework under the Paris Agreement. In addition, Parties without reporting obligations under the current system have voluntarily reported on support (e.g. Annex I Parties not included in Annex II reporting on financial, technological and capacity-building support provided to developing country Parties), which has helped them to gain reporting experience and facilitated the development of reporting systems and approaches to help them prepare for the transition to the enhanced transparency framework. Developed countries have demonstrated a deeper understanding of how their climate policies are performing over time and how they affect emission levels. As well as contributing to the quality of reporting under the UNFCCC, the establishment of systems for ensuring transparency of climate action and support has facilitated domestic policymaking by providing policymakers with access to accurate, reliable and up-to-date information on emission levels, impacts of mitigation actions and support provided.

III. Executive summary

A. Quantified economy-wide emission reduction targets

14. All Annex I Parties except Turkey have communicated their quantified economy-wide emission reduction targets for 2020⁸ and reported them in their BR4s. Each target is expressed as a percentage reduction in absolute GHG emissions from a base-year level to be achieved by 2020 and is accompanied by information on underlying assumptions and conditions, base year, coverage of gases and sectors, the role of LULUCF, if included in the target, and the use of units from market-based mechanisms, if envisaged.

15. Although Parties are required to report ex post information relevant to assessing progress towards their targets, including total annual GHG emissions and the contribution of LULUCF and use of market-based mechanisms, there is no specific guidance outside the Kyoto Protocol rules on accounting for such emissions and contributions towards the achievement of the 2020 targets, which would ensure, for instance, the avoidance of double counting of units from market-based mechanisms across Parties. Yet, most Parties still indicated in their BR4s how they accounted for such emissions and contributions.

16. Most Parties have taken on multiple targets: one that is unconditional (independent of future circumstances) and one or more that are more ambitious but conditional (contingent on certain conditions, such as treaty provisions or pledges made by other Parties). The Parties that have conditional targets did not report in their BR4s on whether any of the conditions

⁸ Contained in document FCCC/SBSTA/2014/INF.6.

for increasing their ambition and shifting towards their conditional targets had been met so far.

17. Parties are increasingly shifting the focus of their climate policy from 2020 targets to midterm targets and long-term mitigation goals. Most reported in their BR4s information on the post-2020 targets communicated in their NDCs under the Paris Agreement. Most also reported on their long-term low-emission development strategies, typically for 2050, highlighting that the 2020 targets are part of their national climate policies setting midterm to long-term trajectories towards more substantial emission cuts and the transition to low- or zero-carbon economies in the second half of the century. A few Parties also reported increased ambition for 2030 in the form of national targets, targets for individual sectors, or in Norway's case a revised NDC with a more stringent target than that communicated in 2015.

18. Among the midterm and long-term targets reported, the EU has committed to becoming climate-neutral by 2050 and submitted in 2020 a long-term low-emission development strategy that encompasses all sectors of the economy. New Zealand passed a law that sets a goal of net zero emissions for all GHGs except biogenic methane. Germany has set a goal of pursuing carbon neutrality by 2050. Sweden has set a goal of net zero emissions by 2045 with negative emissions thereafter. Similarly, both the Netherlands and France mentioned in their BR4s ambitious targets for 2030: the Netherlands has set a 49 per cent emission reduction target by 2030 and France an interim emission reduction target of 40 per cent by 2030 relative to the 1990 level. Norway highlighted its target of becoming a low-emission society by 2050, outlining that the aim is to promote the long-term transformation of the country in a climate-friendly direction, which has been translated into a quantitative target of an 80–95 per cent emission reduction below the 1990 level. Such targets, objectives and strategies provide long-term direction to national climate policy and ensure that near-term and midterm targets are consistent with that direction.

19. An overview of Parties' emission reduction targets for 2020, 2030 and 2050 is provided in the table below.

Annex I Parties' greenhouse gas emission reduction targets

Party	Quantified economy-wide emission reduction target for 2020 (reduction from base-year emission level) ^a			GHG emission reduction target for 2030 (reduction from base-year emission level) ^b			GHG emission reduction long-term target or objective (reduction from base-year emission level)		
	Base year	Unconditional (%)	Conditional (%)	Base year	Unconditional (%)	Conditional (%)	Base year	Target/objective	
Australia	2000	5	15–25	2005	–	26–28	–	–	
Belarus	1990	–	5–10 ^c	1990	At least 28	–	–	–	
Canada	2005	–	17	2005	30	–	2005	At least 80% by 2050	
EU	1990	20	30	1990	At least 40	–	1990	Climate-neutral by 2050	
Iceland	1990	20	30	1990	40 ^d	–	–	–	
Japan	Fiscal year 2005	At least 3.8 ^e	–	Fiscal year 2013	26	–	–	80% by 2050; decarbonized society as ultimate goal	
Kazakhstan	1990	15	–	1990	15	25	1990	–	
Liechtenstein	1990	20	30	1990	40	–	–	–	
Monaco	1990	30	–	1990	50	–	1990	80% and carbon-neutral by 2050	
New Zealand	1990	5	10–20	2005	30	–	2017	24–47% for biogenic CH ₄ , carbon-neutral for all other gases, by 2050	
Norway	1990	30 ^f	40	1990	50–55	–	1990	80–95% by 2050	
Russian Federation	1990	–	15–25	1990	–	25–30 ^g	1990	–	
Switzerland	1990	20 ^h	30	1990	50	–	–	70–85% by 2050	
Turkey	–	–	–	–	Up to 21 from 'business as usual' ⁱ	–	–	–	
Ukraine	1990	–	20	1990	40	–	–	Low-emission development strategy for 2050 to support 2 °C temperature goal	
United States	2005	In the range of 17	–	2005	26–28 by 2025	–	2005	At least 80% by 2050	

^a As communicated to the secretariat and contained in document FCCC/SBSTA/2014/INF.6, unless otherwise specified.

^b As reported in NDCs under the Paris Agreement, available at <http://www4.unfccc.int/ndcregistry/Pages/All.aspx>, unless otherwise specified.

^c Belarus communicated to the secretariat a conditional target of a 5–10 per cent emission reduction compared with the 1990 level, which is reflected in document FCCC/SBSTA/2014/INF.6; but it has communicated an emission reduction target of 8 per cent in all its BRs.

^d Iceland will fulfil its target jointly with the EU and its 28 member States.

^e Target modified after publication of document FCCC/SBSTA/2014/INF.6 and officially communicated to the secretariat by the Government of Japan.

^f Norway reported in its BR4 that its unconditional target under the Convention for 2020 of a 30 per cent emission reduction relative to the 1990 level is consistent with its quantified emission limitation or reduction commitment of 84 per cent of the base-year emissions for 2013–2020 as defined in the Doha Amendment to the Kyoto Protocol. Therefore, compliance under the Kyoto Protocol should ensure that Norway also meets its 2020 emission reduction target under the Convention.

^g The Russian Federation's intended nationally determined contribution is available at <https://www4.unfccc.int/sites/submissions/INDC/Submission%20Pages/submissions.aspx>.

^h Switzerland reported in its BR4 that it will assess the fulfilment of its quantified economy-wide emission reduction target under the Convention by accounting against its quantified emission limitation or reduction commitment for the second commitment period of the Kyoto Protocol of 84.2 per cent of the 1990 emission level.

ⁱ Turkey's intended nationally determined contribution is available at <https://www4.unfccc.int/sites/submissions/INDC/Submission%20Pages/submissions.aspx>.

B. Greenhouse gas emissions and trends

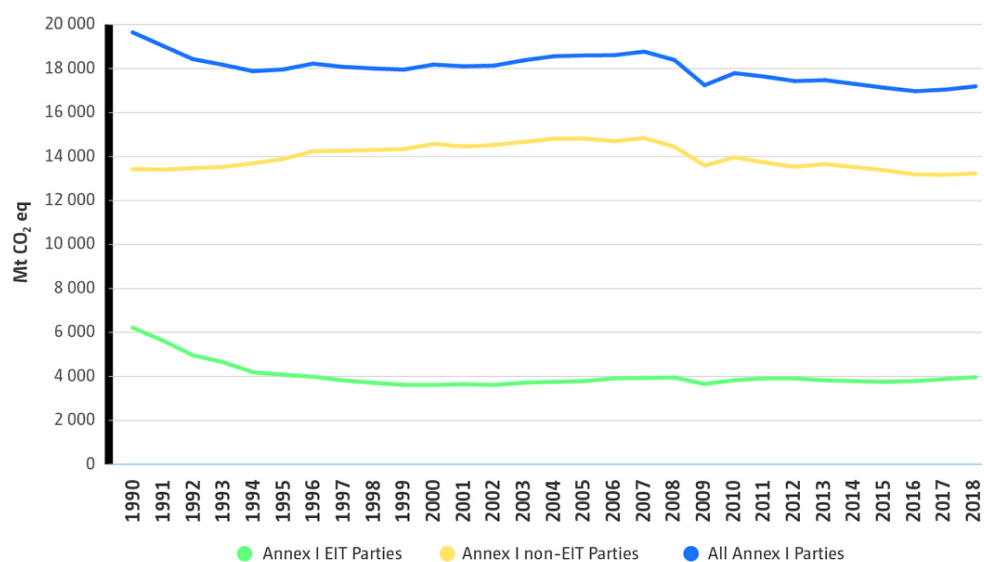
20. Total aggregate GHG emissions of Annex I Parties significantly decreased in 1990–2018 (by 12.5 per cent without LULUCF and by 16.6 per cent with LULUCF). Slight growth in emissions was however observed from 2016 to 2018. In 1990–2018, emissions of EIT Parties decreased by 36.3 per cent without LULUCF and by 44.9 per cent with LULUCF. Likewise, there was a decline in the emissions of non-EIT Parties but at a much lower rate (by 1.5 per cent without LULUCF and by 3.1 per cent with LULUCF).

21. The downward trend in emissions was largely influenced by the deep emission cuts in EIT Parties in 1990–2000. Despite economic growth after 2000, emissions either dropped (in the case of non-EIT Parties) or did not increase enough to offset the emission reductions in the 1990s (in the case of EIT Parties) owing to the effect of implemented PaMs.

22. Throughout 1990–2018 the energy sector remained the dominant source of GHG emissions, accounting for 80.3 per cent of Annex I Parties’ total emissions in 2018, followed by agriculture and industrial processes and product use, each contributing less than 10.0 per cent of the total emissions, and the waste sector with the smallest share in the total emissions (nearly 3.0 per cent). Since 1990, emissions from all sectors have decreased overall, with the largest reduction in the energy sector (by 1,875 Mt CO₂ eq, or 12.0 per cent), driven by the increase in the share of renewable sources in the electricity mix and improvements in energy efficiency. Other implemented measures, such as reducing use of nitrogen fertilizers and improving waste collection and segregation systems, alongside modernizing industrial processes and reducing livestock population, led to lower emissions in the other sectors. Net GHG removals from LULUCF significantly increased (by 46.3 per cent) as a result of expanding forest cover and lowering harvesting rate.

23. Figure 1 shows the levels of and trends in total GHG emissions without LULUCF for 1990–2018 for all Annex I Parties taken together as well as separately for EIT Parties and non-EIT Parties.

Figure 1
Greenhouse gas emissions without land use, land-use change and forestry of Annex I Parties in 1990–2018



C. Policies and measures

24. Parties are continuing to implement existing measures aimed at achieving their 2020 targets and are increasingly planning and adopting new measures towards achieving their midterm targets for 2030 and implementing their long-term low-emission development strategies for 2050. They are capitalizing on their experience with implementing PaMs and tailoring their portfolios of PaMs to target the key emitting sectors and where PaMs are cost-

efficient and can bring multiple benefits, such as health benefits and job creation, in addition to emission reductions.

25. The key elements for an effective portfolio of PaMs include top-level political commitment, strong policy capacity, setting targets and midterm and long-term strategies, and effective and comprehensive sets of PaMs (e.g. Australia's Renewable Energy Target scheme; see the box below). They also include rigorous and comprehensive systems for measurement, reporting and verification of emissions (e.g. the EU monitoring mechanism) and for assessing the effectiveness of such PaMs. Parties did not report drastically changed approaches in their BR4s, but have built on, enhanced and refined existing structures and measures.

Australia's Renewable Energy Target scheme

The Renewable Energy Target is a scheme developed by the Government of Australia to reduce GHG emissions in the electricity sector by encouraging additional generation of electricity from renewable sources. The scheme creates a guaranteed market for additional renewable energy deployment using a mechanism of tradable certificates that are created by renewable energy generators (such as wind farms) and owners of small-scale renewable energy systems (such as solar photovoltaics). Demand for certificates is created by placing a legal obligation on entities that buy wholesale electricity (mainly electricity retailers) to source and surrender the certificates to the Clean Energy Regulator to demonstrate their compliance with annual obligations. The scheme encompasses both a large-scale renewable energy target, aiming to achieve 33,000 GWh additional renewable electricity generation by 2020, by encouraging investment in renewable power stations, and a small-scale renewable energy scheme, whereby households, small businesses and community groups are assisted with the upfront costs of installing small-scale renewable energy technologies such as rooftop solar photovoltaics and solar hot water systems

26. Mitigation plays a key role in most Parties' national climate change agendas, underpinned by legal and institutional frameworks in the form of climate legislation like climate acts, approved planning like long-term strategies, and structures for political decision-making like interministerial committees. In their BR4s a number of Parties reported on efforts to strengthen these frameworks, including updating and/or enhancing climate framework legislation, enshrining long-term targets to 2050 in legislation, planning a regular schedule for updating targets, and strengthening and/or refining the role of inter-institutional committees on climate change. As an example, Denmark has considerably strengthened the role of the Danish Council on Climate Change, created in 2015, to help track progress towards Denmark's climate targets and provide recommendations to help shape climate policy.

27. In their BR4s Parties reported a total of 2,624 PaMs, with quantified impacts reported for 37.7 per cent of those, totalling emission reductions of 3,811.47 Mt CO₂ eq.

28. Parties reported on the status of their PaMs (as planned, adopted or implemented),⁹ which provides insight into the evolution of the portfolio of measures as the time to account for 2020 targets approaches and Parties shift focus towards their targets for 2030 and beyond. A trend of measures moving through a 'life cycle' is evident throughout the four biennial reporting cycles, in which the absolute majority of PaMs have been reported as implemented, at 76–80 per cent in the first three BRs and 67 per cent in the BR4s.

29. In the first three reporting cycles there was a downward trend in the number of measures reported as adopted or planned, from 24.4 to 16.5 per cent, potentially indicating that more PaMs moved into the implementation phase as Parties got closer to the time to account for their 2020 targets (see figure 2). Furthermore, the number of PaMs reported as expired increased from 0.0 per cent in the BR1s and BR2s to 2.1 per cent in the BR3s, potentially as PaMs completed their life cycle or were updated or replaced on the basis of experience. The BR4s indicate that a new policy cycle has begun with regard to post-2020 targets, showing an increased share of planned PaMs reported, up to 23.6 per cent in the BR4s

⁹ In some cases, Parties reported previously reported PaMs that are no longer in place as expired.

from 10.5 per cent in the BR3s. Furthermore, PaMs with a starting year of 2019¹⁰ or later make up a significant share of the PaMs reported (22.6 per cent), with the majority having starting years of after 2020. Such measures include both new and updated PaMs, such as the EU ETS, which has been revised for its fourth phase (2021–2030).

30. Energy including transport remains the focus of the PaMs reported in the BR4s. The majority of measures reported in the BR4s were in the energy (31.0 per cent), cross-cutting (19.9 per cent) and transport (18.3 per cent) sectors. In terms of estimated mitigation impacts, energy, cross-cutting and transport measures accounted for 53.9, 29.6 and 6.9 per cent, respectively, of the impacts reported. The 10 PaMs with the largest reported impacts are also focused on the energy, cross-cutting or transport sector and together account for 83.7 per cent of all impacts reported by all Parties in the BR4s. Examples include the Russian Federation's Energy Action Plan, the German Renewable Energy Sources Act and the EU Roadmap to a Single European Transport Area.

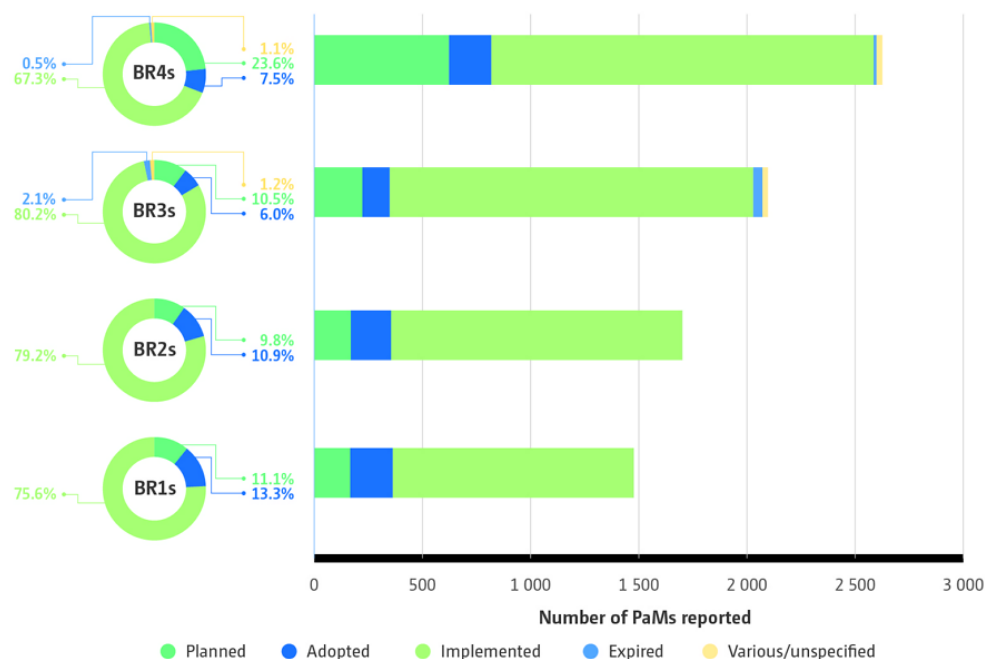
31. Over the four reporting cycles, the clear focus in terms of both the number of mitigation actions and the number of mitigation actions with quantified impacts has been on economic (e.g. green loans in Belgium), fiscal (e.g. usage-based road tolls on heavy-duty vehicles in Hungary) and regulatory (e.g. Australia's Renewable Energy Target) instruments, voluntary agreements (e.g. with aluminium-producing industries in Norway) or combinations thereof. Together, these account for over 60 per cent of mitigation actions reported and 76–86 per cent of those whose impacts were quantified. Economic and regulatory instruments dominate, accounting for 19–22 and 26–29 per cent of mitigation actions, respectively. The focus of reporting impacts for different instruments has clearly changed over time: impacts were reported for 55.0 per cent of regulatory measures in the BR1s but 39.9 per cent in the BR4s. At the same time, impacts were reported for only 4.2 per cent of economic measures in the BR1s but 30.4 per cent in the BR4s.

32. A majority of Parties use carbon pricing approaches in some form. Prominent examples of trading systems are the more established EU ETS and New Zealand Emissions Trading Scheme and Canada's new Output-Based Pricing System. Many Parties reported on combining carbon pricing approaches in the form of levies or taxes and trading systems. The approaches are used in a complementary manner, with trading systems more typically found in subsectors with larger emitters, such as power generation and industrial production, while levies and taxes are more frequently found in areas with a large number of smaller emitters, such as in road transport and the residential and commercial sector.

33. Parties reported on a number of policy developments associated with their post-2020 targets, including strengthening institutional structures and processes, for example with regard to mitigation planning, and reviewing the effectiveness of PaMs. The majority of Parties reported on 2030 targets combined with long-term strategies up to 2050. Within these long-term strategies a number of planned transformational developments were prominent, including a major increase in the share of renewable energy in total power generation, a widespread coal phase-out and the electrification of road transport. To build the foundation for long-term solutions, research and development efforts are geared towards expanding opportunities for new technologies (e.g. carbon capture, use and storage), finding new ways to apply existing technologies (e.g. the production of hydrogen from renewable energy sources) and enhancing carbon dioxide removal in the land-use sector.

¹⁰ Including new and/or updated PaMs.

Figure 2
Shares of policies and measures by status reported in biennial reports



34. Twenty-four Annex I Parties reported in their BR4s on the assessment of the economic and social consequences of their response measures. Most of them integrated the assessment into the national processes for law-making or policymaking, which involved consultations, including open public consultations, together with policy dialogue with trading partners. In general, the information reported is descriptive in nature, with limited information provided on quantitative results or methodology and tools used for quantitative assessment. A few Parties, including France, Slovakia and Spain, reported both positive and negative impacts of response measures, and Slovakia provided both qualitative and quantitative impacts of mitigation policies derived using a modelling tool. Some Parties highlighted the difficulty of accurately assessing economic and social consequences of response measures owing to the lack of an internationally accepted methodology and the uncertainty regarding the direct causality and its extent between climate change measures and adverse impacts. Considering the importance of managing the negative impacts of the implementation of response measures on the workforce and overall economy, some Parties highlighted programmes and initiatives undertaken to address just transition, such as establishing a just transition work programme and investing in opportunities to train, retrain and reskill the workforce.

D. Greenhouse gas emission projections

35. Total projected aggregate GHG emissions of Annex I Parties without LULUCF, including the effect of implemented and adopted PaMs (i.e. under the WEM scenario), are expected to be 16.4 per cent lower in 2020 than Parties' aggregate base-year emissions¹¹ and 10.1 per cent lower than the 1990 level. Emissions have, however, increased in recent years, a trend that is projected to continue up to 2020, with the total GHG emissions projected to slightly increase by 1.5 per cent compared with the 2017 level (most recent historical year used for the projections).

36. The modest projected decrease in emissions for 1990–2020 stems from two different trends. There has been a steep decline (by 33.5 per cent) in the emissions of EIT Parties, observed predominantly in the early 1990s as a consequence of the economic downturn and transition to market economies; while the emissions of non-EIT Parties are projected to

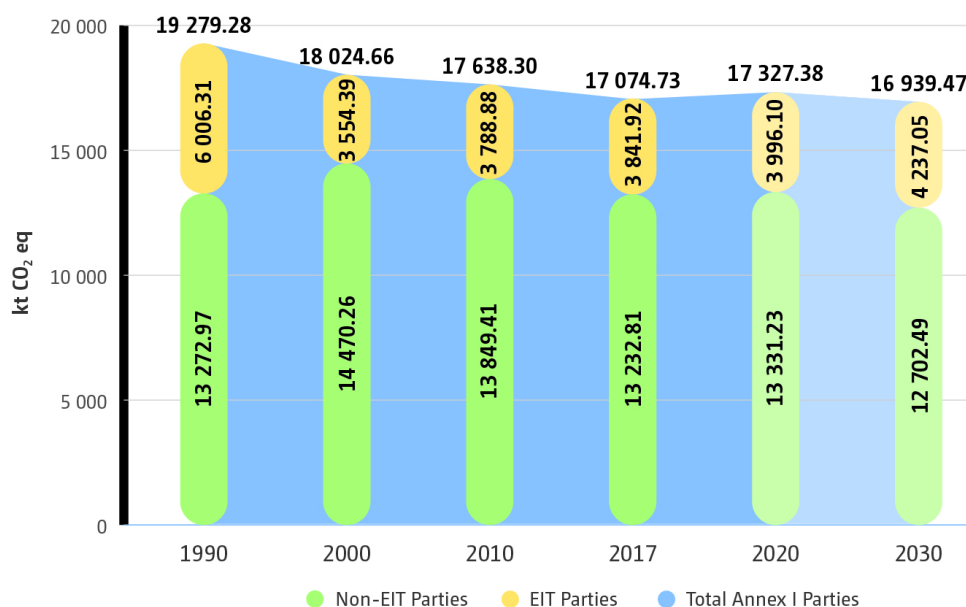
¹¹ The base year for most Annex I Parties is 1990, except for Australia (2000), Canada (2005), Japan (2005) and the United States of America (2005).

increase by 0.4 per cent despite implemented mitigation actions, whose effects were manifested mostly in the late 2000s and after 2010.

37. Figure 3 presents historical and projected emissions under the WEM scenario for Annex I EIT and non-EIT Parties.

Figure 3

Historical and projected greenhouse gas emissions of Annex I Parties without land use, land-use change and forestry under the ‘with measures’ scenario



38. Total emissions from all sectors are projected to decrease by 2020 compared with the 1990 level under the WEM scenario, except emissions from transport, which are expected to increase by 2.3 per cent, primarily as a result of continued increasing demand for passenger and freight transport. By 2030, emissions from all sectors are projected to remain below their respective 1990 level; however, emissions from industrial processes and agriculture are expected to be slightly higher in 2030 than in 2020. It is expected that the energy sector including transport will remain the dominant source of GHG emissions in 2020 and 2030, contributing approximately 80 per cent of total emissions.

39. All Parties provided a WEM scenario, but not all Parties provided a WAM scenario. To enable a rough comparison of projections under the WEM and WAM scenarios, where projections were not reported for the WAM scenario values from the WEM scenario were used as a proxy. Taking this into account, the total GHG emissions of Annex I Parties under the WAM scenario in 2020 are projected to equal 17,209 Mt CO₂ eq, 10.7 per cent lower than the 1990 level. Emissions in 2030 are projected to be 15.9 per cent lower than in 1990, owing to a further 5.8 per cent drop in emissions after 2020.

40. Despite the increased scope and expected strengthening of mitigation actions for beyond 2020, total emissions under the WEM scenario are projected to decline by only 2.2 per cent between 2020 and 2030. This suggests that planned mitigation actions may not be sufficient to completely offset the impact of the underlying emission drivers, such as economic and population growth, and to drive emissions down. It may also suggest that the impacts of the planned mitigation actions have not been fully accounted for because such impacts will depend on the exact form of the legislation and regulations supporting implementation of such measures, which has yet to be finalized.

E. Progress towards 2020 targets by 2017 and outlook for achieving medium- and long-term emission reduction goals

41. GHG inventory data for 2017 and projections for 2020 indicate that Annex I Parties are making progress towards their 2020 targets, but gaps to those targets remain for some Parties.

42. The assessment of Parties' individual progress towards their 2020 targets is based on a comparison of the latest levels of GHG emissions reported by Parties for 2017 in their BR4s (in CTF table 4), including the contribution of LULUCF and use of units from market-based mechanisms, where applicable and available, with the base-year emission level and the targeted emission level in 2020. In quantitative terms, progress towards a target is assessed as the percentage of the targeted emission reduction, expressed as an emission level or budget depending on the nature of the target, achieved by 2017 (see para. 45 below). In addition, for Parties whose emissions in 2017 were above their targeted emission level for 2020, the outlooks for achieving their 2020 targets are presented on the basis of their projected emissions for 2020, together with any plans to use units from market-based mechanisms to make up the shortfall.

43. A few Parties, namely Australia, New Zealand, Norway and Switzerland, have implemented their 2020 targets under the Convention using an emission budget approach (e.g. on the basis of their targets under the Kyoto Protocol for the second commitment period) and, as such, have defined emissions trajectories consistent with those targets. The emission budget for them then represents the cumulative emissions below the emissions trajectory. In such cases, the Party's progress towards its target is assessed by comparing the cumulative emissions, including the contribution of LULUCF and use of market-based mechanisms, as relevant, in 2013–2017 as well as the cumulative projections for 2020 with the emission budget.

44. In this context, and given that all 2020 targets require a degree of emission reduction below the base-year level, the latest emission levels reported in the BR4s for 2017 can be categorized as follows:

(a) Below both the base-year emission level and the 2020 targeted emission level, which implies that the 2020 target is likely to be achieved, provided emissions do not increase by the end of 2020;

(b) Below the base-year emission level but still above the 2020 targeted emission level, which implies that progress towards the 2020 target has been made but that further efforts are required to achieve it. For Parties applying the emission budget approach, this corresponds to their cumulative emissions in 2013–2017 not exceeding their emission budget for 2013–2020;

(c) Above the base-year emission level, which means that current emission trends diverge from the trajectory towards achieving the 2020 target. For Parties applying the emission budget approach, this corresponds to their cumulative emissions in 2013–2017 having already exceeded their emission budget for 2013–2020.

45. Taking into account emission levels until 2017, reported contributions of LULUCF and use of units from market-based mechanisms, where applicable, and emission projections for 2020, it can be concluded that Parties have made varying individual progress towards their 2020 targets, as shown in figure 4:

(a) For all Parties, emissions in 2017 were below the base-year level. The emission levels of Belarus, the EU, Japan, Liechtenstein, Monaco and the Russian Federation in 2017 were already lower than their respective base-year level and 2020 targeted emission level. However, the projected emissions of Japan for 2020 under the WEM scenario and Monaco under both the WEM and WAM scenarios are higher than the targeted emissions for 2020. This suggests the need to implement additional PaMs to achieve their 2020 targets or to purchase units from market-based mechanisms to make up the shortfall;

(b) Among the Parties not using an emission budget approach, the emissions of Canada and Kazakhstan for 2017, including the contribution of LULUCF and/or use of units

from market-based mechanisms, where applicable, are between the base-year level and the 2020 targeted emission level. The emission reductions achieved by 2017 by these two Parties as a percentage of the targeted emission reductions range from 26 to 36 per cent. Moreover, the projected 2020 emission levels of Canada and Kazakhstan under both the WEM and WAM scenarios are above their targeted emission levels. This indicates that, while those Parties had made some progress towards their 2020 targets by 2017, in order to achieve their 2020 targets they are likely to need to implement additional mitigation actions and/or purchase units from market-based mechanisms;

(c) In the case of Parties using an emission budget approach (Australia,¹² New Zealand,¹³ Norway¹⁴ and Switzerland¹⁵), their cumulative emissions (including the contribution of LULUCF and use of units from market-based mechanisms, as relevant) for 2013–2017 are at 59–67 per cent of their emission budgets. According to projections under the WEM scenario, Australia expects to achieve its emission budget target without using units from market-based mechanisms. On the other hand, New Zealand, Norway and Switzerland plan to use units from market-based mechanisms to achieve their respective emission budget target.

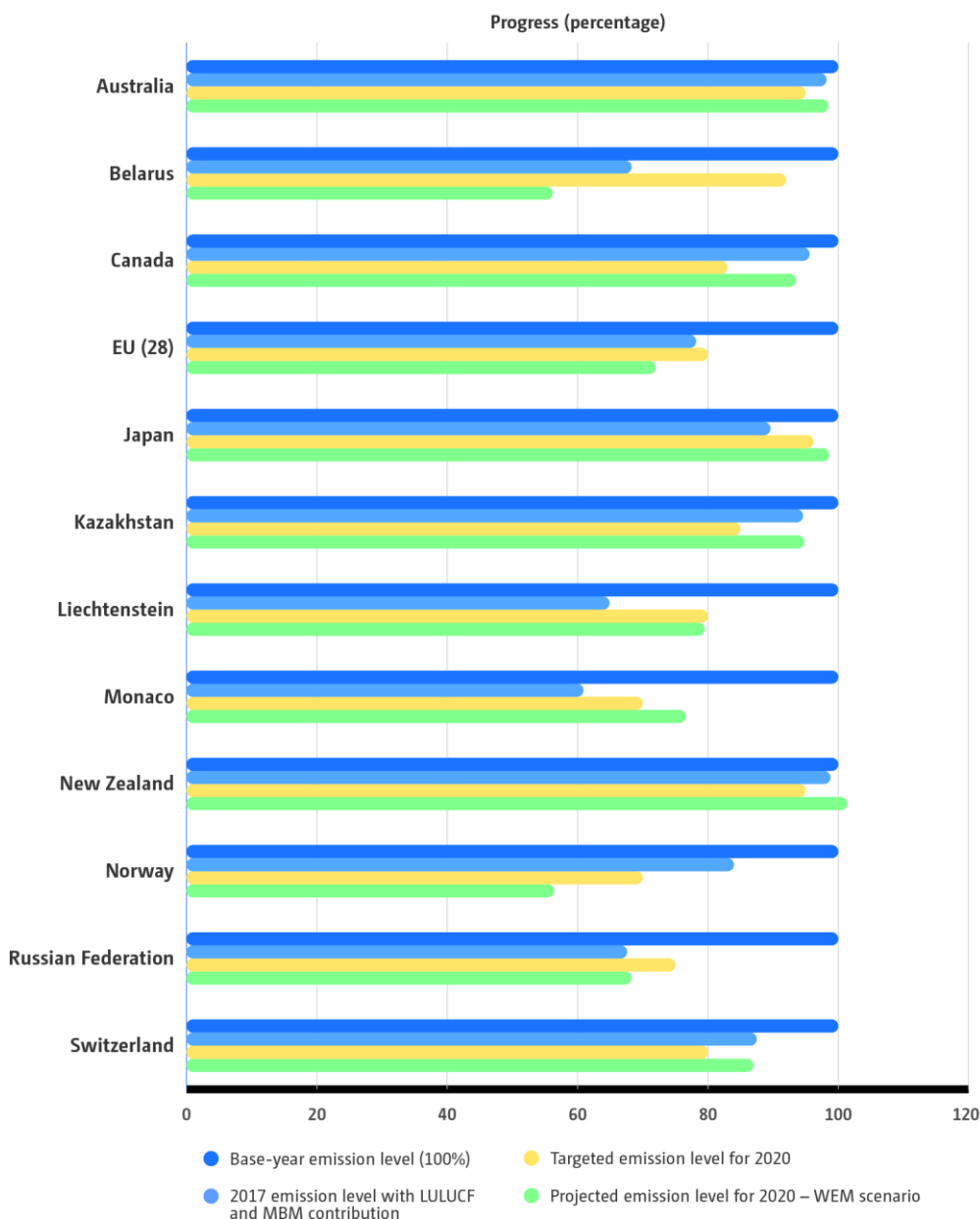
¹² Australia follows an emission budget approach in accounting for its target, calculated by plotting a trajectory of linear decrease from 2010 to 2020 starting from the target level under the first commitment period of the Kyoto Protocol (8 per cent above the 1990 level) and ending at 5 per cent below the 2000 level over 2013–2020. The emission budget represents cumulative emissions below the trajectory. Australia's cumulative emissions for 2013–2017 were 2,658.76 Mt CO₂ eq, which corresponds to 59 per cent of its emission budget for 2013–2020 (4,508 Mt CO₂ eq).

¹³ New Zealand's emission budget for 2013–2020 is 509.8 Mt CO₂ eq. Its cumulative emissions including the contribution of LULUCF for 2013–2017 are 337.5 Mt CO₂ eq, which corresponds to 66.2 per cent of its emission budget.

¹⁴ Norway's 30 per cent emission reduction target under the Convention was operationalized through its quantified emission limitation or reduction commitment for the second commitment period of the Kyoto Protocol (2013–2020), which corresponds to an average emission reduction of 16 per cent compared with the 1990 level. Between 2013 and 2017, Norway's total GHG emissions including the contribution of LULUCF and use of units from market-based mechanisms amounted to 218,083.78 kt CO₂ eq, which corresponds to 62.5 per cent of its assigned amount for the second commitment period of the Kyoto Protocol (348,914.30 kt CO₂ eq).

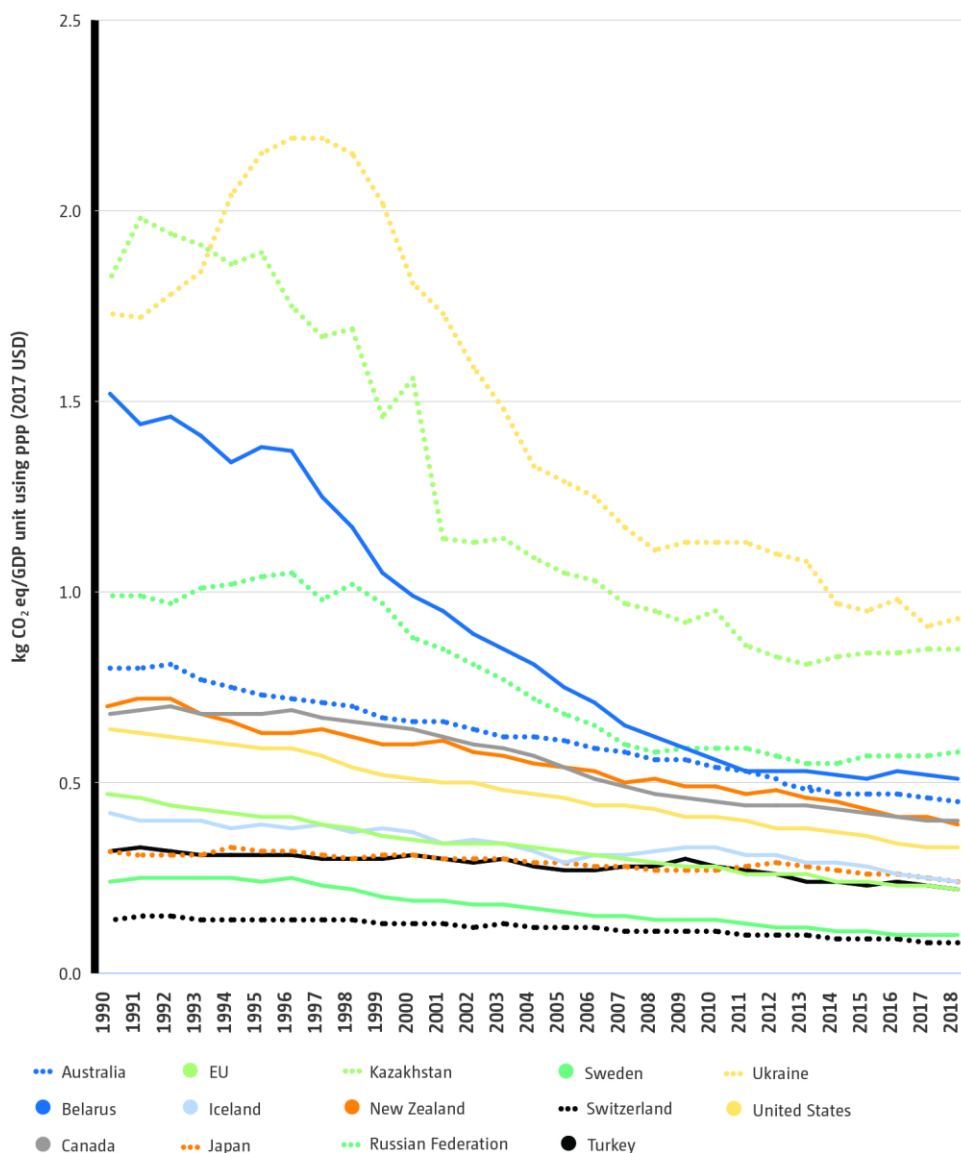
¹⁵ Switzerland assesses progress towards its target under the Convention by accounting against its quantified emission limitation or reduction commitment for the second commitment period of the Kyoto Protocol, which is to reduce emissions by 15.8 per cent below the 1990 level in 2013–2020. In 2013–2017 Switzerland's cumulative emissions, including the contribution of LULUCF but excluding use of units from market-based mechanisms, amounted to 243,841.79 kt CO₂ eq, which corresponds to 67.4 per cent of its assigned amount for the second commitment period of the Kyoto Protocol (361,768.52 kt CO₂ eq).

Figure 4
Annex I Parties' progress towards their emission reduction targets for 2020



46. From 1990 to 2018, the levels of GHG emissions per capita and GHG emissions per unit of gross domestic product using purchasing power parity were on a downward trend for most Parties; only a few Parties experienced small increases. The downward trend is much more prominent for emissions per unit of gross domestic product using purchasing power parity, reflecting that for most Annex I Parties there has been a decoupling of emissions from economic growth. Figure 5 shows the trends in GHG emissions per unit of gross domestic product using purchasing power parity for Annex I Parties.

Figure 5
Trends in emissions per unit of gross domestic product using purchasing power parity for Annex I Parties in 1990–2018



Note: Liechtenstein and Monaco are not included because relevant data were not available.

47. Overall, it is difficult to accurately attribute GHG emission reductions to specific factors over time using indicators across all Annex I Parties as emission trends have been influenced by a combination of demographic, economy-wide and sector-specific drivers, including, but not limited to, population changes; structural changes in economies (particularly pronounced in EIT Parties); technological improvements in production processes and the shift to less carbon-intensive fossil fuels (e.g. from coal to natural gas); the increased share of renewable energy sources in electricity and heat generation; and increased energy efficiency. However, the analysis of indicators provides evidence that, since 2000, individual Parties have gradually intensified their efforts in implementing mitigation actions aimed at decarbonizing their economies.

48. Although Parties reported in their BR4s primarily on efforts aimed at meeting their 2020 targets, they also provided information on the economy-wide emission reduction targets contained in their NDCs and their long-term strategies. This enables a preliminary assessment of the difference between projected emissions in 2030 under the WEM and WAM scenarios, as applicable, and emission levels that correspond to their 2030 targets. Only the Russian Federation and Ukraine expect to achieve their targeted levels of emissions in 2030 with the

current portfolio of PaMs, both implemented and planned. However, most Parties are already putting in place a range of PaMs in order to achieve their 2030 targets. Some Annex I Parties outlined in their BR4s ambitious strategies for meeting the goals enshrined in their long-term strategies, typically for 2050.

F. Provision of financial, technological and capacity-building support to developing country Parties

49. Annex II Parties reported quantitative and qualitative information on financial, technological and capacity-building support provided to non-Annex I Parties in 2017–2018 in their BR4s. Consistently with the trend observed since the BR1s (which contain data for 2011–2012), reported climate finance, support for technology transfer and development, and support for capacity-building continue to grow each year, providing more comprehensive support and incentives to developing countries for undertaking mitigation and adaptation activities and strengthening the global response to climate change.

1. Climate finance

50. Overall, climate finance provided by developed to developing countries continues to increase, reflecting a continued commitment to supporting the global transition to a low-emission and climate-resilient future. In parallel, Parties' reporting on climate finance has continued to be improved and expanded, with the BR4s including a high number of Parties without financial and reporting obligations (i.e. Annex I Parties not included in Annex II) voluntarily reporting on support provided.¹⁶ As a result, the BR4s paint a more comprehensive picture of global climate finance flows.

51. Total climate finance, as reported in the BR4s, averaged USD 48.7 billion annually in 2017–2018; on a comparable basis, this represents an increase of 9.9 per cent over the previous biennium 2015–2016, as shown in figure 6.¹⁷ The largest share (USD 36.2 billion) was reported as climate-specific support, while the share of core/general support (i.e. support provided to multilateral and bilateral institutions that is not considered climate-specific) has been decreasing over time. The share of climate-specific finance decreased from 40 per cent of the total in 2011–2012 (as reported in the BR1s) to approximately 25 per cent in 2017–2018 (as reported in the BR4s). The growth in climate-specific support can be attributed to Parties responding to the mounting urgency to support climate action by developing countries, Parties progressing towards their climate finance obligations, and multilateral and bilateral finance institutions expanding their climate portfolios. In addition, improved practices for tracking financial flows and/or Parties' decision to reduce or, in a few cases, exclude core/general funding from their financial reporting has resulted in a smaller share of core/general compared with climate-specific support.

52. Two thirds of all climate finance reported in the BR4s (equivalent to an annual average of USD 32.3 billion) was provided through bilateral, regional and other channels, an increase of 1.7 per cent since the BR3s. Of that, nearly two thirds was allocated to mitigation activities. While a greater overall volume of support was allocated to mitigation, at the individual level many Parties continued to view adaptation as a priority and allocated more than half of their annual support to it. In terms of sectors, the largest share of bilateral, regional and other support in 2017–2018 was reported as other (i.e. not allocated to energy, transport, industry, agriculture, forestry, water and sanitation or cross-cutting). As a result, it is difficult to assess clear sectoral trends within the reporting period or over time. Similarly, determining trends in geographic distribution continues to prove challenging as Parties provided limited

¹⁶ In terms of volume, nearly all climate finance is provided by Annex II Parties (99.8 per cent).

¹⁷ The report on the compilation and synthesis of BR4s includes financial information from the 22 Annex II Parties that had submitted their BR4s by October 2020. Previous compilation and synthesis reports include data from the BRs of 24 Annex II Parties, which limits comparability of the financial information reported. However, when comparing the BR4s with only the BR3s of the same 22 Annex II Parties that submitted BR4s, climate finance for 2017–2018 is 9.9 per cent greater than that for 2015–2016. Average annual support is calculated by summing the contributions over the biennium and calculating the average for the two-year period. Comparisons with data from previous BRs have been calculated directly, without adjusting for inflation.

disaggregated information on recipient countries, regions, projects, programmes and activities.

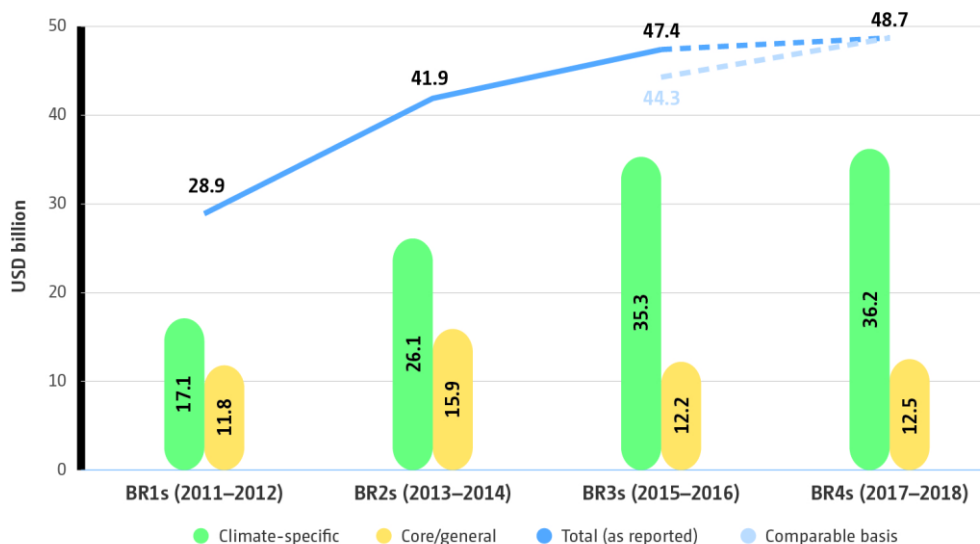
53. Annual average support provided through multilateral channels constituted one third of the total support in 2017–2018, an increase of 26.6 per cent since 2015–2016. Support continues to be channelled through a range of multilateral climate funds and financial institutions (including regional development banks) as well as specialized United Nations bodies. Key channels for delivery include the World Bank and the relatively new Green Climate Fund, which has received contributions from a wide range of developed countries (Annex II and Annex I Parties not included in Annex II) as well as nine developing countries.

54. At the same time, growing engagement with the private sector was reflected in the BR4s, highlighting the critical role public funding can play in leveraging private sector support at scale for achieving the goals of the Convention and the Paris Agreement. While many Parties are still developing their reporting capacity to track private sector flows, those with more advanced systems indicate significant potential for leveraging private funds from targeted public investments. Austria, for example, had limited ability to track private climate finance leveraged prior to 2016; however, as reported in its BR4, it has since implemented an expanded reporting system guided by developments under the OECD Research Collaborative on Tracking Private Climate Finance, and now produces annual estimates of private climate finance mobilized by public investments to get a clearer picture of its total contributions.

55. The BR4s also reflect several new trends in climate finance, including the move towards more detailed sectoral reporting (e.g. specifying subsector allocations using more specific coding such as the OECD Development Assistance Committee purpose codes); the expanded use of innovative financial instruments such as climate insurance to better reduce risks, share costs and incentivize private sector engagement; and the introduction of new reporting areas, such as gender, where Parties have underscored the need to better integrate gender considerations into climate finance, including through gender-responsive planning and gender-sensitive reporting on progress.

Figure 6

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



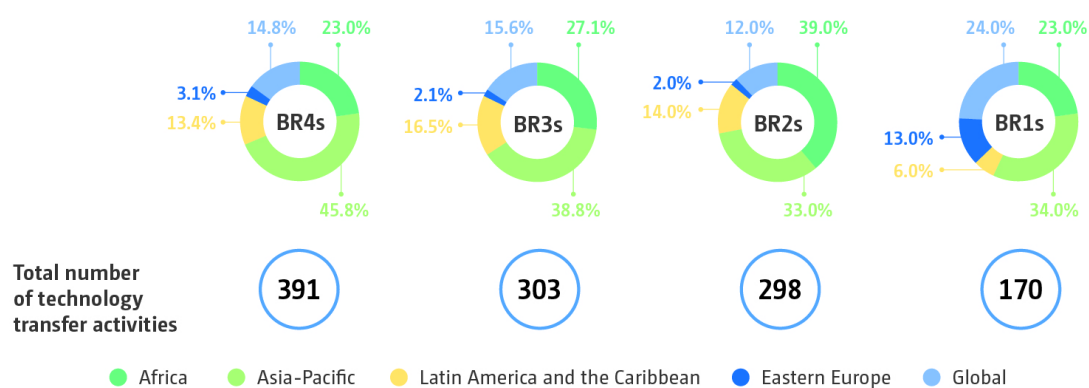
Note: The report on the compilation and synthesis of BR4s includes financial information from the 22 Annex II Parties that had submitted their BR4s by October 2020. Previous compilation and synthesis reports include data from the BRs of 24 Annex II Parties, which limits comparability of the financial information reported. However, when comparing the BR4s with only the BR3s of the same 22 Annex II Parties that submitted BR4s, climate finance for 2017–2018 is 9.9 per cent greater than that for 2015–2016.

2. Technology development and transfer

56. Support for technology development and transfer activities has increased significantly, providing a strong foundation for the transformational change envisioned in the Paris Agreement. In their BR4s Parties reported 391 activities relating to technological support (an increase of 29 per cent compared with those reported in the BR3s) (see figure 7), with more than half of the activities supporting mitigation (56 per cent), a quarter supporting adaptation (26 per cent) and the remainder supporting cross-cutting actions. Annex II Parties highlighted their efforts to mainstream technology transfer activities in their development cooperation activities with a view to contributing to sustainable development and achievement of the SDGs. In this context, Parties provided examples of supported technology activities that, besides contributing to achieving climate action (SDG 13), also contributed to achieving other SDGs, such as affordable and clean energy for all (SDG 7) and industry, innovation and infrastructure (SDG 9).

Figure 7

Distribution by region of technology transfer activities reported by Annex II Parties in their biennial reports



57. Support for adaptation technology activities mainly targeted the agriculture, cross-cutting and water sectors. Many of the supported adaptation technology activities in the agriculture sector were related to agricultural practices, such as seed or crop improvements, climate-smart and/or biological farming or general food security improvements. Support for mitigation technology efforts continued to focus on the energy sector. The majority of support for mitigation efforts in the energy sector was related to renewable energy and energy efficiency.

58. Annex II Parties highlighted their efforts to fully respond to the technology support needs of developing country Parties with technology activities in line with the prioritized technology needs identified by 53 non-Annex I Parties in their technology needs assessments and contained in the fourth synthesis report on technology needs.

59. To ensure sustainable uptake of climate technologies by target groups, Annex II Parties provided support for building endogenous capacities and technologies in recipient countries. Activities included collaborating with country partners in the proposal and design stage of activities and involving local people in installing and operating projects, followed up by tailored training programmes to ensure proper control, function and routine maintenance of the implemented climate technologies.

60. The predominant share of technology activities reported across the BRs has been for the deployment of mature technologies, even though support as reported in the BR4s for activities relating to the early stages of the technology cycle, such as research and development and demonstration activities, has increased compared with that for activities relating to the other stages of the technology cycle and such activities represented more than one third (36 per cent) of all supported activities.

61. Asia-Pacific has continued to benefit most from the reported technology support, with almost half (46 per cent) of all technology support focusing on the region, while support for technology for the African region (23 per cent) and Latin America and the Caribbean (13 per cent) has also not changed significantly since the BR3s (see figure 7).

3. Capacity-building support

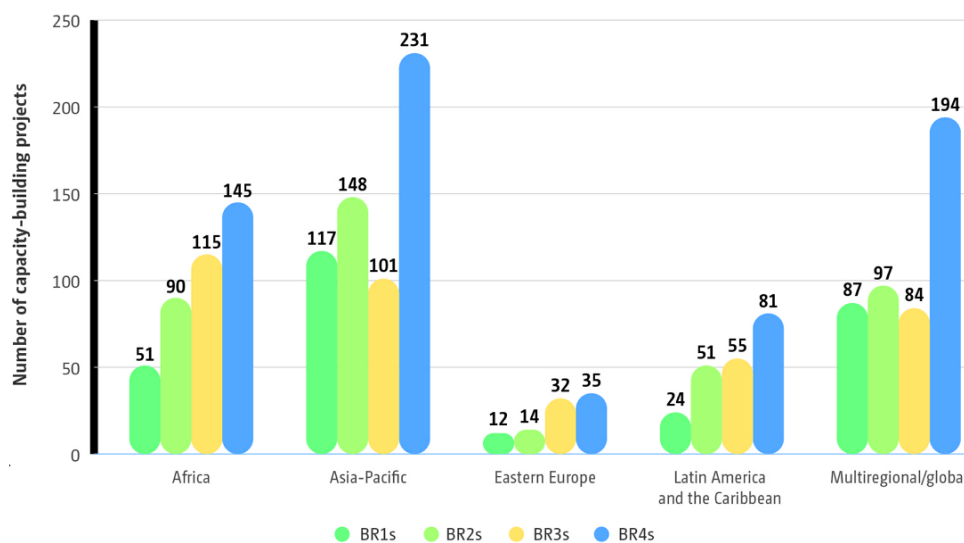
62. Support for capacity-building increased significantly in 2017–2018, with Parties acknowledging the importance of capacity-building as an essential element of climate change mitigation and adaptation policies, initiatives, projects and activities. A total of 686 supported capacity-building activities were reported in the BR4s (in CTF table 9), a 77.3 per cent increase over the number reported in the BR3s (387) and a 71.5 per cent increase over the number reported in the BR2s (400).

63. Adaptation is increasingly becoming a priority focus for capacity-building. Similar to in 2015–2016, in 2017–2018 there was more support for capacity-building projects on adaptation than for those on mitigation and other areas. Of the total 686 projects, 275 (40 per cent) were focused on adaptation, 194 (28.2 per cent) were reported as distinctly supporting mitigation, 190 (27.7 per cent) were supporting multiple areas and the remaining 4.1 per cent were technology transfer and other projects.

64. Asia-Pacific and Africa continue to be among the priority regions for capacity-building. In 2017–2018 Asia-Pacific benefited most from the reported capacity-building support, accounting for a 33.6 per cent share of the total support for capacity-building activities, followed by multiregional and global activities, and Africa with 28.2 and 21.1 per cent shares, respectively. By contrast, according to the BR3s, Africa previously had the biggest share (29.7 per cent) of capacity-building support, followed by Asia-Pacific (26.1 per cent) (see figure 8).

Figure 8

Number of capacity-building support projects by region reported in biennial reports



65. In terms of the geographical distribution of the various types of support provided as reported in the BR4s, 38.0 per cent of the support for adaptation was provided to the Asia-Pacific region, followed by multiregional or global support accounting for 23.0 per cent and the Africa region for 22.3 per cent. In total, 43.2 per cent of the support for mitigation was provided to multiregional or global projects, followed by Asia-Pacific and Africa accounting for 32.8 and 15.0 per cent, respectively. With regard to projects targeting multiple areas, 30.0 per cent of support was allocated to Asia-Pacific, followed by Africa, Latin America and the Caribbean, and multiregional or global projects, accounting for 25.0, 19.4 and 22.1 per cent, respectively.

66. As reported in the BR4s, 23 per cent of the capacity-building projects targeted the energy sector, followed by agriculture and water with 17 and 16 per cent shares, respectively. Most of the projects on energy focused on energy efficiency and renewable energy alternatives. The Global Energy Transformation Programme, which is being implemented worldwide but with a focus on sub-Saharan Africa, stimulates investment in renewable energy in developing countries through pipeline development and private sector mobilization.

67. To ensure coherence and coordination, many Parties are linking capacity-building support with the SDGs; for instance, Denmark provided support in relation to SDG 7 (affordable and clean energy for all) through the Sustainable Energy for All initiative. Regarding how the provided capacity-building support responds to the existing and emerging capacity-building needs identified by non-Annex I Parties in the areas of mitigation, adaptation and technology development and transfer, some Parties highlighted the importance of country ownership, stakeholder consultation and responding to the needs expressed by non-Annex I Parties in their national communications.

68. Bilateral collaboration through development agencies remains the main vehicle for capacity-building support. Several Parties highlighted the provision of capacity-building support through the operating entities of the Financial Mechanism, multilateral development organizations and United Nations organizations. The Green Climate Fund and the European Development Fund were also mentioned as important channels.
