

Pre-2020 Ambition on Climate Change

History, Status, Outlook

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INTRODUCTION

The 2015 "Paris outcome" (which includes the [Paris Agreement](#) and accompanying [Decision 1/CP.21](#)) charts a course for enhanced long-term action on climate change after 2020, and is a major achievement for the international climate change negotiations. However, the pledges made for climate action in the pre-2020 period, before the Paris Agreement comes into effect, are equally important to prevent dangerous climate change. Effective pre-2020 action is important for environmental, social, economic, and political reasons.

The environmental and social benefits of early action are highlighted, most recently, by the Intergovernmental Panel on Climate Change (IPCC) in a special report on *Global Warming of 1.5°C*.¹ The report estimates that the mitigation pledges submitted by Parties under the Paris Agreement will not limit global warming to 1.5°C, even if supplemented by very challenging increases in the scale and ambition of emissions reductions after 2030. To avoid overshooting the 1.5°C goal, global CO₂ emissions must start to decline well before 2030. If global warming exceeds 1.5°C, irreversible loss of some ecosystems could take place. Disadvantaged and vulnerable populations, indigenous peoples, and local communities dependent on agricultural or coastal livelihoods will be at disproportionately higher risk of adverse consequences of global warming of 1.5°C and beyond. Arctic ecosystems, dryland regions, small-island developing states, and least developed countries will also be at higher risk. Limiting global warming to 1.5°C, compared with 2°C, meanwhile, could reduce the number of people both exposed to climate-related risks and susceptible to poverty by up to several hundred million by 2050.

Earlier action avoids costlier investments to reduce emissions and to adapt to climate change impacts in the future. The 2014 *Fifth Assessment Report* (AR5) of the IPCC develops four Representative Concentration Pathways (RCPs), which are used for making projections on the pathways of greenhouse gas (GHG) emissions and atmospheric concentrations, air pollutant emissions, and land use for the 21st century.² Out of four pathways, only one that includes a stringent mitigation scenario (RCP2.6) is fully compatible with the objective of keeping global average temperature increase to below 2°C by the end of the century. Reflecting the fact that emissions have continued to rise over recent decades, most models indicate that scenarios similar to RCP2.6 are characterised by substantial net negative emissions (where GHGs being somehow "sucked" out of the atmosphere) by 2100, on average around 2 GtCO₂ annually, if the GHG stock is to be stabilised at the right level.³

This drives a key insight that the longer the world waits to make deep emissions cuts to have a chance of keeping global average temperature below 2°C, the further and faster it will have to do so in the future.⁴ At the same time, the locking-in of carbon intensive infrastructure in energy, transport, and buildings opens up the risk that assets will be devalued or scrapped before the end of their working lives, if we are to avoid dangerous climate change.⁵ By the same logic, the imperative to move faster and earlier is proportionately greater to meet a 1.5°C target.

Pre-2020 action is also important for political reasons. The Cancún and Paris Agreements were achieved on the basis of an understanding that developed countries will take the lead on mitigation, and provide support to developing countries towards achieving their mitigation and adaptation objectives. A stocktake of pre-2020 progress is particularly important to signal the intent of developed countries to abide by this understanding.

Another political dimension relates to equity, an important issue in the discussions on pre-2020 action. Developing countries fear that the mitigation burden resulting from the pre-2020 action gap will be transferred to them in the post-2020 period. Ministers from Brazil, South Africa, India, and China (BASIC) issued a [joint statement](#) in May 2018, noting with concern the significant gaps in pre-2020 climate efforts, and

cautioning that these gaps should not be transferred to the post-2020 period to present an additional burden to developing countries.⁶ They urge developed countries to peak their emissions as soon as possible if they have not already done so, and undertake rapid reductions thereafter in accordance with best available science.

The urgency of pre-2020 action was recognised in the Paris outcome. [Decision 1/CP.21](#) emphasises the urgent need to address the significant gap between the effect of mitigation pledges to reduce GHG emissions by 2020, and emission pathways that are consistent with keeping average global temperatures below 2°C, while pursuing efforts to limit temperature increase to 1.5°C above pre-industrial levels. The Decision also recognises the urgent need to enhance the provision of finance, technology, and capacity-building support by developed countries in a predictable manner, to enable enhanced pre-2020 action by developing countries. This was a precondition set by developing countries for taking on mitigation action before 2020.

Pre-2020 "ambition", as pre-2020 action has come to be known, therefore includes two key elements: **ambition on mitigation**, to address the emissions gap, and address equity-related concerns of developing countries; and **ambition on climate finance**, including implementation of developed country pledge, made in the 2015 Copenhagen Accord and the 2016 Cancún Agreements, to jointly mobilise US\$ 100 billion annually by 2020 for climate action in developing countries.⁷

Despite global recognition of the importance of pre-2020 ambition, progress has not been satisfactory. Some countries may not meet their 2020 emission reduction or limitation pledges, and the Doha Amendment to the Kyoto Protocol has not yet entered into force. There is also concern that no mechanism or guideline is in place for a transparent and clear evaluation of progress on the US\$ 100 billion pledge.

The implementation of pre-2020 ambition will be reviewed in 2018 and 2019, in line with a decision taken at the 23rd Conference of Parties (COP23) to the UN Framework Convention on Climate Change (UNFCCC) in November 2017. A review of pre-2020 ambition is also part of the 2018 Talanoa Dialogue.⁸ Other related processes, such as the biennial High-level Ministerial Dialogue on Climate Finance that will meet during COP24 in 2018, the [Technical Examination Process on Mitigation](#) (TEP), and the [Marrakech Partnership for Global Climate Action](#), will also review pre-2020 progress. These processes offer an important opportunity to assess past experiences, draw lessons for the implementation and enhancement of the pledges under the Paris Agreement, and draft recommendations to enhance progress on pre- and post-2020 commitments. The pre-2020 discussions should not, however, become a barrier for advancing the rest of the negotiating agenda.

This policy brief aims to assist negotiators, policy experts, and civil society in navigating the discussions on pre-2020 ambition towards a constructive and effective deliberation. It is based on a review of negotiating documents and decisions; submissions by Parties to the UNFCCC; analysis by academics and intergovernmental organisations; and informal interviews with negotiators representing developing and developed countries.

The brief provides an overview of the history of the negotiations; plans for upcoming sessions; key issues under discussion; and progress on implementation. It concludes with a set of key questions and recommendations for negotiators.

HISTORY OF PRE-2020 AMBITION

From Kyoto to Paris

The distinction between pre- and post-2020 action on climate change stems from the way in which global climate change negotiations have evolved. The UNFCCC, adopted in 1992, sets the general legal framework for international climate change action, but does not impose any quantified limits on emissions on Parties. It was not until 1997 that countries agreed on binding, quantified emissions limits for developed countries for the first commitment period of the *Kyoto Protocol* (2008-2012).

Amid growing concerns on the need to enhance global climate change action, including by finding new ways to engage the US after the country's withdrawal from the Kyoto Protocol (and addressing the country's corresponding demand that key trade partners also take actions on climate change), the 2007 *Bali Action Plan* called for a framework for enhanced action by all countries, including developed and developing countries. The Bali Roadmap launched a negotiating process aimed at reaching a new agreement on "*a full, effective and sustained implementation of the UNFCCC up to and beyond 2012*," which was expected to be adopted at COP15 in Copenhagen, in 2009.

From this point, the negotiations proceeded along the two tracks: one dealing with the future of the Kyoto Protocol beyond the first commitment period of 2008-2012 (through an Ad hoc Group on the Kyoto Protocol, or AWG-KP); and the second one dealing with enhanced action under the UNFCCC (through the Ad Hoc Group on Long-term Cooperative Action, or AWG-LCA).

2009, Copenhagen

COP15 in Copenhagen failed to result in a unanimous agreement. Instead, Parties to the UNFCCC merely "*took note*" of a *Copenhagen Accord*. It took another year of negotiations to bring the key elements of this Accord under the UNFCCC through the Cancún Agreements at COP16. Copenhagen therefore started a process towards implementing pre-2020 ambition on climate change, albeit advancing incrementally.

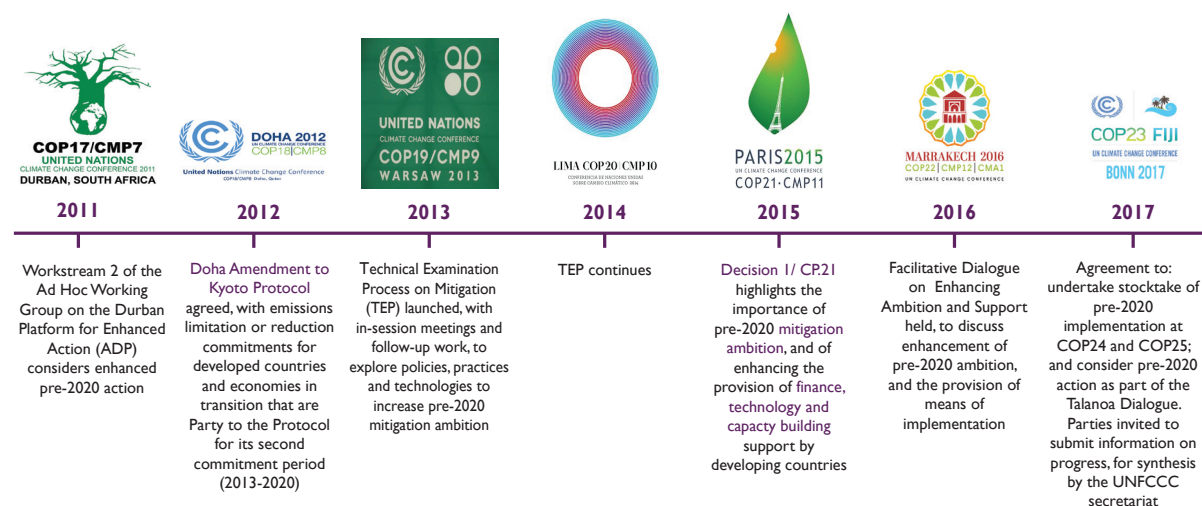
2010, Cancún

The *Cancún Agreements* from COP16 formalised some of the elements of the Copenhagen Accord, including: a goal of limiting global temperature increase to 2°C; a recognition that developed countries would take the lead, while all countries will put forward mitigation pledges; broad provisions for measurement, reporting and verification of actions; a goal of mobilising US\$ 100 billion annually by 2020 in finance to support developing countries in implementation; and, the establishment of a new climate fund, called the Green Climate Fund (GCF). As part of the Cancún Agreement, Parties also decided to establish a Standing Committee on Finance (SCF) to assist the COP in relation to the Financial Mechanism of the UNFCCC. A summary of the quantified economy-wide emissions reduction targets for the pre-2020 period pledged by developed countries under the Cancún Agreements can be found in **Annex A**.

2011, Durban

The 2011 *Durban Platform for Enhanced Action* (Decision 1/CP.17) was launched in 2011, at COP17 in Durban, South Africa. This initiated a negotiating process under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP), and it was agreed that it should result in a new legal instrument applicable to *all* Parties to be adopted by COP21, to come into effect and be implemented from 2020. At its first session in 2012, the ADP initiated work under two workstreams: workstream 1, on a new 2015 agreement for post-2020 (in accordance with paragraphs 2 to 6 of Decision 1/CP.17); and workstream 2, on enhanced pre-2020 action (in accordance with paragraphs 7 and 8 of Decision 1/CP.17).

Figure 1: Pre-2020 Timeline



2012, Doha

At COP18 in Doha, it was decided to explore options for actions that can close the pre-2020 ambition gap and to develop a plan of work in 2014. At the same session, Parties to the Kyoto Protocol adopted the **Doha Amendment**. The Amendment includes quantified emissions limitation or reduction commitments for developed countries and economies in transition that are Party to the Kyoto Protocol for its second commitment period, from 2013-2020 (see **Annex A** for the list of targets). It was agreed that each Party included in Annex I will revisit its quantified commitment for the second commitment period at the latest by 2014, in line with an aggregate reduction for these Parties of at least 25-40% below 1990 levels by 2020. A high-level event at COP19 was agreed, to provide an opportunity for increasing the ambition of the second commitment period of the Kyoto Protocol.

2013, Warsaw

In 2013, COP19 requested the ADP to accelerate its work on enhancing pre-2020 mitigation ambition, and launch a **Technical Examination Process on Mitigation** (TEP) to explore high-potential mitigation policies, practices, and technologies with significant sustainable development co-benefits that could increase the mitigation ambition of pre-2020 climate action.⁹ TEP consisted of in-session thematic expert meetings and follow-up work, including technical papers based on the input from countries, international organisations, and partnerships that collaborate with the UNFCCC. The **technical papers** summarised information on best practices on mitigation policies, practices, and technologies and cover various thematic areas, including renewable energy, energy efficiency, land use, transport, urban environment, carbon capture, value of carbon, and non-CO₂ gases. Every year from 2015, the UNFCCC secretariat has produced a summary for policy makers of the TEP discussions. It should be noted, however, that the level of pledges for the Kyoto Protocol's second commitment period has not changed compared to the Cancún pledges made by developed countries.

2014, Lima

The importance of enhancing pre-2020 ambition to ensure the highest possible mitigation efforts by all Parties was reiterated at COP20, in Lima in 2014. It was decided to continue TEP, including consideration of the high mitigation potential opportunities with adaptation, health, and sustainable development co-benefits, in the 2015-2020 period.¹⁰ The ADP was requested to make recommendations to COP21 in Paris in relation to further advancing TEP. COP20 focussed primarily on the communication of intended Nationally Determined

Contributions (NDCs) over and above the pre-2020 processes. An "action agenda" focused on actions by non-Party stakeholders to close the gap in emissions was launched.

2015, Paris

Decision 1/CP.21 adopted in Paris at COP21 emphasised that enhanced pre-2020 ambition can lay a solid foundation for enhanced post-2020 ambition. Stressing the urgency of accelerating the implementation of, and enhancing, pre-2020 ambition, it also recognised the urgent need to enhance the provision of finance, technology, and capacity-building support by developed countries to enable enhanced pre-2020 action by developing countries.

The Paris Decision also called for strengthening of the TEP, in particular the technical examination of opportunities with high mitigation potential and associated adaptation, health, and sustainable development co-benefits in the 2016-2020 period, while mandating an assessment of the process in 2017. It was agreed that a Facilitative Dialogue will take place at COP22 to assess progress and identify opportunities for enhancing the provision of finance, technology, and capacity-building support for pre-2020 action by developing countries. Two high-level champions were appointed to act on behalf of the President of the COP to facilitate engagement on the execution of existing efforts and the scaling-up and introduction of new voluntary efforts, initiatives, and coalitions in 2016-2020.¹¹

Decision 1/CP.21 also launched a technical examination process on adaptation (TEP-A) for 2016-2020, to identify concrete opportunities to strengthen resilience, reduce vulnerabilities, and increase the understanding and implementation of adaptation actions. TEP-A focuses on:

- facilitating the sharing of good practices, experiences and lessons learned;
- promoting cooperative action on adaptation, including actions that could enhance economic diversification and have mitigation co-benefits; and
- identifying opportunities to strengthen enabling environments and enhance the provision of support for adaptation in the context of specific policies, practices and actions.

TEP-A is led by the Adaptation Committee, and comprises of annual technical expert meetings, an annual technical paper, and an annual summary for policymakers.¹²

2016, Marrakech

At COP22 in Marrakech, in 2016, countries celebrated the early entry into force of the Paris Agreement and held the Facilitative Dialogue on Enhancing Ambition and Support in the pre-2020 period. The Dialogue was structured in two parts: a technical part that focused on the assessment of progress made with enhancement of pre-2020 ambition and the provision of support; and a ministerial dialogue based on the inputs of the technical discussion.¹³

A Marrakech Partnership for Global Climate Action was also launched at COP22, led by the high-level champions, to build on several high-level initiatives and the TEP. It is designed to enhance coherence of the activities of the various initiatives and organisations "*with a view to mobilising climate action up to 2020 by Parties and non-Party stakeholders*". It also aims to "*foster the nexus between climate action, disaster risk management and the sustainable development goals*".

2017, Bonn

Pre-2020 ambition became a very prominent issue at COP23 in Bonn, in 2017, when many developing countries led by the G77 and China raised concerns over insufficient progress on pre-2020 action by developed countries, and called for the issue to be put on the formal negotiating agenda as a political matter. Several countries objected to this proposal, arguing the TEP and related processes already provide an avenue for consideration of pre-2020 matters. Besides, they argued, negotiating time is limited, and priority should be given to the development of the Paris rulebook.

In the end, [Decision 1/CP.23](#) from COP23 agreed to convene stocktakes on pre-2020 implementation and ambition at COP24 in December 2018, and COP25 in November 2019, in the same format as the 2016 Facilitative Dialogue. COP23 also invited Parties to submit additional information on progress in implementing enhanced action prior to 2020 by 1 May 2018, and requested the secretariat to prepare a synthesis report as input to the stocktake.¹⁴ It was also noted that the Talanoa Dialogue will consider, as one of its elements, the efforts of Parties in relation to action and support in the pre-2020 period.

Expectations for Katowice

The stocktake on pre-2020 ambition and implementation that will take place in Katowice at COP24 in December 2018 will be based on input from the subsidiary bodies and the constituted bodies under the UNFCCC and the Kyoto Protocol; the operating entities of the Financial Mechanism; reports on the mitigation efforts of Parties and on the provision of support in the pre-2020 period; and the work of the Marrakech Partnership for Global Climate Action. The Marrakech Partnership published a yearbook in 2017 and a [summary for policy makers](#) with recommendations arising from the TEP, including on collaborative initiatives and opportunities for mitigation in the urban environment and in the agriculture, forestry, and other land use sectors, which will all feed into the stocktake.

The stocktake will be complemented by the biennial [High-level Ministerial Dialogue on Climate Finance](#), the next session of which will take place at COP24 (in accordance with [Decision 3/CP.19](#)). The Dialogue will draw on the SCF's biennial assessment report on finance due in October 2018 (in accordance with [Decision 2/CP.17](#)). Both the Ministerial Dialogue and the report will be informed by the biennial submissions by developed countries on their strategies and approaches for scaling up climate finance, including information on:

- the expected levels of climate finance mobilised;
- relevant policies, programmes, and priorities;
- actions and plans to mobilise additional finance;
- actions to ensure the balance between adaptation and mitigation; and
- steps to enhance enabling environments for long-term finance.

The outcomes of the stocktake could be captured in a political declaration or decision, which could be initiated by the Ministerial Dialogue.

STATUS OF IMPLEMENTATION AND GAPS

The discussions on pre-2020 ambition mainly revolve around two issues, as noted earlier:

- **Implementation of pre-2020 ambition on mitigation, and addressing the emissions gap.** In particular, this includes the implementation of pre-2020 mitigation pledges made by developed countries under the Cancún Agreements; the status of acceptance and entry into force of the Doha Amendment under the Kyoto Protocol; and efforts to enhance the level of action, taking into account the equity concerns raised by developing countries to avoid transferring the mitigation burden resulting from the pre-2020 ambition gap to developing countries in the post-2020 period.¹⁵
- **Implementation of pre-2020 ambition on finance, and addressing the finance gap.** This includes progress on implementation of the pledge by developed countries, made through the Copenhagen Accord in 2015 and the Cancún Agreements in 2016, to jointly mobilise US\$ 100 billion annually by 2020. Particular areas of concern include transparency related to the provision of support; and the shortage of finance to support adaptation in developing countries, given the gap in mitigation efforts.

This section reviews the status of implementation of these two key elements.

Pre-2020 mitigation ambition

Developed countries committed to take the lead on climate action up to 2020 and adopted quantified economy-wide emission targets for 2020 through the Copenhagen Accord, Cancún Agreements, and (for those countries that remain a Party to the Kyoto Protocol for the second commitment period) the Doha Amendment. Developing countries are stepping up their efforts to reduce emissions going to 2020 since 2009, through their nationally appropriate mitigation actions (NAMAs).

The mitigation ambition gap

Cancún's Decision 1/CP.16 recognised that developed countries, as a group, will need to reduce their emissions to the levels recommended by the IPCC in its Fourth Assessment Report (AR4) to avoid the worst impacts of climate change. AR4, in turn, recommended that developed countries should reduce their emissions by 25-40% below 1990 levels by 2020, and developing countries should reduce their emissions substantially from business-as-usual (BAU) emissions trajectories.¹⁶ The mitigation pledges formally recognised by the Cancún Agreements, however, fall short of this recommended ambition, which is necessary to avoid dangerous climate change. *The Emissions Gap Report 2010* by the UN Environment Programme (UNEP) found that current pledges were more consistent with pathways of "likely" temperature increases of 2.5°C to 5°C by the end of the century.¹⁷

According to *The Emissions Gap Report 2010*, Annex I emissions in 2020 will be around 16% below 1990 levels (range of 15-18%) and 20% below BAU emissions (range of 17-26%) in the most ambitious scenario, if conditional pledges are implemented and strict rules followed. This is less ambitious than the 25-40% reduction by 2020 from 1990 levels called for by the IPCC.

For non-Annex I countries, emissions are estimated to be 7% lower than BAU (range of 6-8%) in the least ambitious scenario where only unconditional pledges are implemented, and 9% lower than BAU (range of 8-9%) in the most ambitious scenario where conditional pledges are also implemented. This is less ambitious than the 15-30% deviation from BAU that some studies use as benchmark for quantifying "significant deviation" from BAU.

The Emissions Gap Report 2012 estimated an emissions gap of 8-13 GtCO₂e (depending on how emission reduction pledges are implemented) in 2020 for a “likely” chance of staying below the 2°C goal.¹⁸ However, fully implementing the conditional pledges and applying strict rules will bring emissions more than 40% of the way from BAU to the 2°C target.

These assessments clearly point to the need for enhancing pre-2020 ambition.

Some countries and non-party stakeholders have announced initiatives to increase ambition beyond the Cancún pledges or have reported over-performance in terms of reducing emissions. Amongst the developed countries these include the EU and Norway; amongst large emitting developing countries they include China and Mexico (see **Annex B**).

Status of implementation of pre-2020 mitigation pledges

A clear picture of the status of implementation of pre-2020 pledges by developed countries is important to showcase evidence of the progress, and send a clear signal of goodwill and commitment. This assessment will be based on the information submitted by Parties in their submissions for the stocktake and in their Biennial Update Reports.

According to the *The Emissions Gap Report 2017*, 13 G20 economies have 2020 pledges (counting the EU members France, Germany, Italy, and UK as one member), while three do not have pledges. These economies collectively generate around three quarters of total global GHG emissions and include the EU, the US, and China. Although it is critical that all countries advance as far as possible towards achieving their Cancún Pledges and Doha targets (where applicable), the role of the highest-emitting economies is particularly critical.

Four leading developed economies (the EU, Australia, Japan, and Russia) are on track to meet their Cancún pledges (and Doha targets, in the case of the EU and Australia) according to analyses by groups like the PBL Netherlands Environmental Assessment Agency, Climate Action Tracker, London School of Economics, University of Melbourne, and UNEP.¹⁹ The EU pledged a 20% reduction from 1990 levels, and official data for 2014 shows that this pledge has already been met or exceeded. According to the EU’s submission for the COP24 stocktake (see summary of submissions in **Annex B**), by 2016 the bloc had already cut emissions by 23% below 1990 levels and is on course for a 26% reduction. Lower than expected energy demand and success in deploying renewables, on the back of a new feed-in tariff, has helped Japan meet its pledges to reduce GHG emissions by 3.8% from 2005 levels by 2020.

Two major developed countries (Canada and the US) are likely to miss their targets and will require further action or the purchase of offsets (or both) to meet their pledges.²⁰ The US was on target to meet its submitted pledge to reduce GHG emissions levels by 17% below 2005 levels by 2020, but recent policy changes under the new administration has put this achievement in doubt.²¹ Independent analysis suggests that Canada is set to miss its 2020 emissions pledges by a wide margin.²² Canada’s Cancún pledge aims to reduce emissions by 17% below 2005 levels by 2020. According to official projections, Canada’s emissions are expected to reach 731 MtCO₂e annually in 2020,²³ well above the pledged level of 620 MtCO₂e annually.²⁴

Among large emitting developing countries, *The Emissions Gap Report 2017* assesses Brazil, China, and India to be on track to meet their Cancún pledges. China, which pledged a reduction of 40-45% in CO₂ emissions intensity, is projected by several studies to be on track to achieve a reduction of at least 42%. India looks set to meet its pledge to reduce its emissions intensity of GDP, excluding the agriculture sector, by 20-25% below 2005 levels by 2020. The Republic of Korea has not rescinded its pledge communicated to the UNFCCC, but has amended its Green Growth Basic Act to replace the 2020 pledge with the NDC target for 2030. Independent

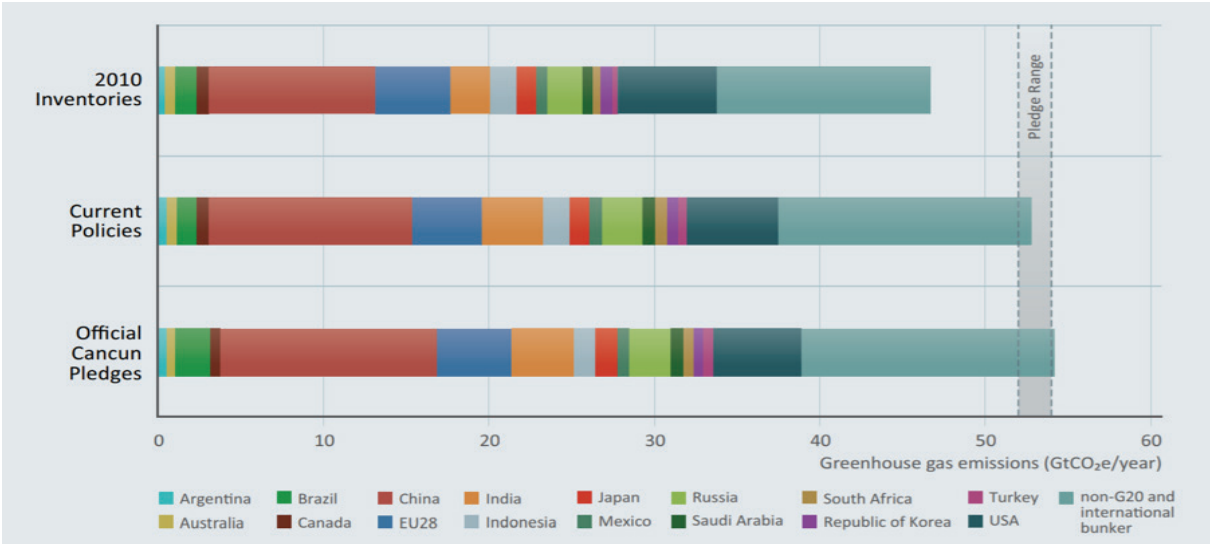
analysis suggests that the Republic of Korea is set to miss its 2020 emissions pledges by a wide margin, while South Africa is slightly short of reaching the upper end of this range. Mexico’s Cancún pledge to cut GHG emissions by 30% below BAU levels, including land use, is conditional on the provision of adequate financial and technological support from developed countries.²⁵ Under its current policies, Mexico is not on track to meet its pledge.

Better data is necessary to track progress in some countries, such as Indonesia. The three remaining G20 members (Argentina, Saudi Arabia, and Turkey) have proffered no Cancún pledges (although they have submitted post-2020 pledges to the UNFCCC as part of their NDCs, and Turkey has submitted a Biennial Report which includes projected emissions for 2020).

Altogether, *The Emissions Gap Report 2017* concludes that the 2020 emissions under current policies are estimated to be in the mid-range of the Cancún pledge scenario (see **Figure 2**). Any further delay in strengthened short-term action will decrease the chance of keeping global warming well below 2°C and will make the 1.5°C target increasingly unattainable.

The submissions by Parties to the upcoming stocktake at COP24 in December 2018 are a primary source of evidence on the status of actual implementation of the pre-2020 action, and are included in **Annex B**.

Figure 2: Emissions of key economies under current policies,* and with pre-2020 pledges



Source: *The Emissions Gap Report 2017*, UNEP

* Including international bunker emissions

Doha Amendment to the Kyoto Protocol

Acceptance and entry into force of the Doha Amendment to the Kyoto Protocol is another important element for maintaining and strengthening mutual trust amongst the countries. The Doha Amendment specified commitments by developed countries that are Party to the Kyoto Protocol for the period 2013-2020, as discussed earlier. Specifically, it includes:

- new commitments for Annex I Parties to the Kyoto Protocol (developed countries and economies in transition) in a second commitment period from 1 January 2013 to 31 December 2020. The composition of Parties in the second commitment period is different from the first, as the US and Canada withdrew from the Protocol, while Japan indicated that it does not have any intention to be under obligation of the second commitment period after 2012;

- a revised list of GHGs to be reported on by Parties in the second commitment period; and
- amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period, and which needed to be updated for the second commitment period.

Annex A provides a table summarising emission reduction targets for 2020 specified in the Doha Amendment side by side with the emission reduction pledges by the developed countries for 2020 made earlier under the Copenhagen Accord and codified in the Cancún Agreements. Most of the emissions reduction commitments under the Doha Amendment are the same as those made under the unconditional part of the pledges under the Cancún Agreements, reflecting lack of enhanced ambition.

The Doha Amendment is subject to acceptance by Parties to the Kyoto Protocol (Article 20, paragraph 4 and Article 21, paragraph 7 of the Kyoto Protocol). Following its adoption on 8 December 2012, it was circulated by the UN Secretary-General in his capacity as Depositary to all Parties to the Kyoto Protocol on 21 December 2012. The Amendment will enter into force on the 90th day after the date of receipt of an instrument of acceptance by at least three quarters of the Parties to the Kyoto Protocol by the [UN Depositary](#), for those Parties that accept it.

At the time of writing, there were 192 Parties to the Kyoto Protocol. Therefore, 144 Parties to the Kyoto Protocol need to deposit their instruments of acceptance for the entry into force of the Doha Amendment. Calls to the governments of all Parties to the Kyoto Protocol to accept the Doha Amendment have been included in several UNFCCC decisions and documents since 2012. In his letter dated 13 February 2013 to the governments of the Kyoto Protocol Parties, the UN Secretary-General encouraged prompt acceptance. Most recently on 17 January 2018, the President of COP23 and the UNFCCC Executive Secretary issued a joint letter, urging Parties to the Kyoto Protocol to accept the Doha Amendment as soon as possible. Despite this, as of 5 August 2018, 114 Parties had deposited their instrument of acceptance, with 30 more instruments of acceptance required for the Amendment to enter into force.

Our analysis of the notifications received shows that 35 Annex I Parties (including one regional block, the EU) with quantified emission limitation or reduction commitments under the Doha Amendment have deposited their instruments of acceptance. This represents 92% of Annex I Parties to the Kyoto Protocol at the time, with only four acceptances from economies in transition still outstanding – Kazakhstan, Russian Federation, Poland, and Ukraine. The Russian Federation has stated its intention not to accept the Doha Amendment following a controversy during the final stages of the negotiations in Doha,²⁶ so acceptance of the amendment by Russia is unlikely. Kazakhstan and Ukraine also disagreed with the final process and Decision in Doha. In 2015, Kazakhstan indicated, in its Second Biennial Update Report, that the government had not yet decided regarding the acceptance of the Doha Amendment in light of “*certain difficulties for fulfilment of obligations stated*”.²⁷

Of the non-Annex I (developing) countries, 79 have accepted the Doha Amendment, representing 51% of non-Annex I countries that are party to the Kyoto Protocol, with 80 acceptances outstanding. This means that the entry into force of the Doha Amendment can be achieved through acceptances by developing countries.

Some have questioned the practical significance of trying to achieve the entry into force of the Doha Amendment so close to 2020. However, informal consultations with legal experts suggest that there will be wider legal ramifications arising from the core provisions of the Kyoto Protocol, including a basis for the assessment of compliance, if the Amendment formally enters into force. There will be no legal grounds for an assessment if the Doha Amendment does not enter into force.

Pre-2020 finance

Climate finance is central for enabling developing countries to implement mitigation and adaptation actions. Through the Copenhagen Accord in 2009 and the Cancún Agreements in 2010, developed countries have committed to jointly mobilise US\$ 100 billion annually by 2020 to address the needs of developing countries for climate action and adaptation. This section provides an overview of the implementation of the pre-2020 finance pledge by the developed countries. The analysis summarises the latest submissions by Parties and external reports. Special attention is given to assessments of the “adaptation finance gap”, primarily based on UNEP’s Adaptation Gap Reports.

Key issues under consideration

COP21 in Paris reaffirmed the commitment to mobilise US\$ 100 billion per year by 2020 and emphasised that “developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention”.²⁸ Decision 1/CP.21 “strongly urges developed country Parties to scale up their level of financial support, with a concrete roadmap to achieve the goal of jointly providing US\$ 100 billion annually by 2020 for mitigation and adaptation while significantly increasing adaptation finance from current levels and to further provide appropriate technology and capacity-building support”.²⁹ In this context, Decision 1/CP.21 identified four priority areas:

- scaling-up public resources;
- significantly increasing finance for adaptation;
- using public finance and policy interventions to effectively mobilise private finance; and
- supporting enhanced access, capacity building, and investment readiness.

Meeting the US\$ 100 billion target for mobilisation of annual flows of climate finance by 2020 and progress towards implementation of the above objectives, is another important question for the stocktake on pre-2020 action. However, there has been ongoing disagreement over what is to be reported and counted towards the US\$ 100 billion. Developing countries have sought, among other things, more public finance; greater transparency relating to financial flows (source of climate finance, amounts and currency, financial instruments and channels used); clearer methodologies for accounting of leveraged finance; and more funds for adaptation. Hence, an important issue that emerged in the discussions on pre-2020 finance is transparency of financial flows and accounting rules for measuring progress in provision of finance. These issues are discussed in greater detail below.

The GCF and the Global Environment Facility (GEF) are the major channels for the financial support to developing countries to enhance their climate actions. Serving as the Financial Mechanism of the UNFCCC, they have an important role in the implementation of the above financial pledge. Discussions on climate finance includes assessments of both the GCF and the GEF, as the operating entities of the Financial Mechanism.

Technological and capacity-building support is being provided through the UNFCCC Technology Mechanism, which aims to enhance the development and transfer of climate technologies to developing countries, and through the capacity building frameworks that address the needs, conditions, and priorities of developing countries and countries with economies in transition. Inputs from these mechanisms could also be considered in the stocktake. In their 2018 [joint statement](#), BASIC country ministers called for an assessment of the effectiveness and adequacy of support under the Technology Mechanism together with elaboration of the technology framework and enhancement of the Paris Committee on Capacity Building (PCCB).

To put the climate finance flows in perspective, Climate Policy Initiative (CPI) estimates that investments needed in the energy sector alone, including energy use in power, transportation, and buildings, total over US\$ 1 trillion per year through 2050.³⁰ By comparison, total upstream and downstream fossil fuel investment in 2016 of US\$ 825 billion indicates that significant potentially stranded investments could be reallocated to meet low-carbon investment needs.³¹

Status of implementation of the US\$ 100 billion climate pledge

Over the past few years, several assessments have been carried out on progress in achieving the target of mobilising US\$ 100 billion annually for climate change by 2020. A key point of contestation has been whether only contributions from public sources should be counted, or the mobilisation of private capital through public investment should also be considered. If only public resources are counted, then the assessments indicate that further progress is required to reach US\$ 100 billion in annual flows. If a broad measure of mobilisation of private finance is included, then the evidence suggests that the US\$ 100 billion annual target has already been exceeded.

The *2016 SCF Biennial Assessment and Overview of Climate Finance Flows* figures for 2013-2014 show public flows of climate-specific finance from developed to developing countries averaging US\$ 41 billion annually. Of this, US\$ 23.1 billion and US\$ 23.9 billion in 2013 and 2014 respectively was channelled through bilateral, regional, and other channels. This represents an increase of about 50% from public finance reported through the same channels in 2011-2012. US\$ 14.9 billion and US\$ 16.6 billion was channelled through multilateral development banks in 2013 and 2014, respectively. The rest was channelled through multilateral funds under the UNFCCC. Mobilised private flows are harder to estimate, but the *2016 SCF Biennial Assessment and Overview of Climate Finance Flows* estimates that US\$ 2 billion was mobilised to support renewables, US\$ 24 billion was mobilised as foreign direct investment, and a further US\$ 14.8 billion was mobilised as private co-finance across a range of other projects (private finance leveraged through public bilateral and multilateral commitments).³² An updated SCF Biennial Assessment Report on climate finance is expected to be available for COP 24 in Katowice in December 2018, and will feed into the pre-2020 stocktake at the session.

A 2015 report on *Climate finance in 2013-14 and the US\$ 100 billion goal*, by the Organisation for Economic Co-operation and Development (OECD) in collaboration with CPI, estimates that US\$ 62 billion was mobilised in 2014, up from US\$ 52 billion in 2013, averaging US\$ 57 billion annually over the 2013-2014 period.³³ This data includes private funding for climate-related projects, directly mobilised through public finance from developed countries, and private non-concessional loans, which developing countries argue should not be counted towards the climate finance commitments (as discussed in more detail below). Preliminary estimates of the share of private co-financing suggests that it totalled around 25% of the total finance mobilised.

The OECD-CPI report has met with a mixed reception, with questions raised on the sources of data and the overall approach and lack of transparency in how financial institutions report on climate finance. Among the strongest critiques was a [paper](#) by the Department of Economic Affairs in India's Ministry of Finance claiming that, far from being in a position to claim that climate finance to developing countries totals close to US\$ 60 billion a year as reported in the study, the only verifiable cross-border flows are those originating from 17 special climate funds which, since their inception, have disbursed a mere US\$ 2.2 billion.

In 2016, developed countries published a *Roadmap to 100 billion*, explaining how they plan to meet the US\$ 100 billion pledge.³⁴ The Roadmap reported a rise in climate finance to US\$ 62 billion in 2014, up from US\$ 52 billion in 2013, in line with the OECD study. According to the Roadmap, "*modest assumptions about increased leverage ratios would lead to projected overall finance levels in 2020 above US\$ 100 billion*". This assessment was heavily criticised, however. Ministers from BASIC countries expressed concern over attempts by some

developed countries to unilaterally apply new eligibility criteria for developing country access to funding under the GEF and the GCF, noting that such attempts fall outside the mandates of the GEF Council and GCF Board.³⁵

Balance between adaptation and mitigation

An additional challenge that has emerged in the context of the US\$ 100 billion pledge is the lack of balance between financial support for adaptation and mitigation. To date, 70% of the public finance allocated for climate change has been allocated for mitigation, and only 25% has been allocated to adaptation. The *2016 UNEP Adaptation Gap Report on Finance* reported that total bilateral and multilateral finance for climate change adaptation reached US\$ 25 billion in 2014, of which US\$ 22.5 billion was targeted at developing countries. 84% of these funds originated from development finance institutions. By comparison, the report estimates that the cost of adaptation in developing countries is likely to be between US\$ 70 billion to US\$ 300 billion a year by 2030, and up to US\$ 500 billion a year by 2050. The *2017 Adaptation Gap Report* argued that there are no one-size-fits-all metrics given the diversity of resources, vulnerabilities, and adaptive capacity. However, it recommends that “*a transparent assessment of global progress is facilitated if national reporting of descriptive metrics (including activities and results) is clearly distinguished from evaluative metrics*”.

Transparency challenges

As a result of numerous gaps and ambiguities in reporting climate finance, many countries, especially from the developing world, are seeking further transparency on how countries report their financial contributions. A recent [study](#) suggests, for instance, that the OECD analysis is based on questionable data from member states. Others complain that the OECD-CPI report has not distinguished between grants and loans or reported plans to do so.

The challenges of transparency and clarity in reporting climate finance are further complicated by the requirement that the US\$ 100 billion should be additional to other development-related contributions, constituting mobilisation of new money and not merely annual totals. There is an underlying concern that money already committed previously has been counted in the figures, or even that money is diverted from alternate development funds in order to make up the numbers. This question can never be resolved definitively as there is no counterfactual to observe in the absence of the implementation of pledges. However, it does point to the need for increased transparency to understand the type, source, and destination of climate finance, and to avoid double counting.

Transparency in accounting is a prerequisite for distinguishing between BAU financial flows, and those that constitute new and additional finance. Without this, a commonly agreed assessment of the status of implementation of the US\$ 100 billion pre-2020 annual climate finance target will be evasive. Furthermore, according to the SCF's *2016 Biennial Assessment and Overview of Climate Finance Flows*, the need for international and national efforts to improve climate-related financial risk disclosures are important for improving transparency and promoting alignment of finance and investment.

Replenishment and functioning of the GCF

The GCF is the main vehicle to distribute the bulk of the US\$ 100 billion that industrialised countries aim to mobilise every year for climate mitigation and adaptation from 2020 onwards, but it remains underfunded. According to the [GCF pledge tracker](#), 43 governments have made pledges to the Fund, including nine developing countries, with US\$ 10.3 billion pledged as of 8 May 2018. Of this, around US\$ 6.5 billion was paid as of June 2018.³⁶ These include signed and disbursed cash and promissory notes (noting that non-US dollar promissory notes are subject to exchange rate risk at the time of disbursement). However, the US has since announced its intention not to pay the US\$ 2 billion remaining from its initial US\$ 3 billion pledge. Although

the GCF is meant to undergo a replenishment when it has allocated 60% of its pledged resources, the Board is yet to agree on its approach to replenishment. There are also issues around the ease of access to financial resources, which need to be resolved. In their May 2018 joint statement, BASIC country ministers expressed concern over “*attempts by some developed countries*” to unilaterally apply new eligibility criteria for developing country access to funding from the GEF and the GCF, noting that such attempts fall outside the mandates of the GEF Council and GCF Board.

Future outlook

While recognising the challenges outlined above, there is reliable evidence that the broader scale of public commitments on climate finance is on the rise. For example, the Inter-American Development Bank pledged to double climate finance to 30% of annual commitments by 2020. The World Bank (which currently channels around US\$ 10 billion climate finance annually) announced that it will grow its climate work by a third to 28% of its annual commitment by 2020. Several efforts to strengthen capacity to access climate finance are now underway, and the GCF has **recently stepped up its efforts** in this regard.

Submissions by Parties for the pre-2020 stocktake show that the EU is increasing its mobilisation of climate finance. Contributions from EU Member States amounted to approximately US\$ 17 billion in 2016, a rise of 14.7% compared to 2015.³⁷ Japan is looking to increase its financial support to developing countries to about US\$ 11.6 billion in 2020 (see **Annex A**).³⁸ The US has yet to submit evidence to the stocktake at COP24 in 2018.

Resolving all the outstanding issues and closing the pre-2020 finance gap is hardly possible now before the year 2020. Yet much can be done to enhance progress and initiate actions that could help close the gap more rapidly and avoid jeopardizing implementation of the 2030 objectives. In this context a number of initiatives have been launched or proposed, including the Mission 2020 initiative convened by former UNFCCC Executive Secretary Christiana Figueres, which includes a financial goal of mobilising US\$ 1 trillion annually for climate action, mostly from the private sector.³⁹ Other initiatives like the Solar Alliance also have an important role to play in closing the pre-2020 gap.

Some negotiating groups, like the African Group, have proposed “*carrying over*” any financial gap that might remain at the end of 2020, and launching international cooperative initiatives to support actions in developing countries that would help close the gap, whilst avoiding a formal commitment under the UNFCCC.⁴⁰

KEY ISSUES AND RECOMMENDATIONS

All countries claim to share the view that pre-2020 implementation and ambition are of utmost importance. The rising stock of atmospheric GHGs, the risks posed by continued investment in, and lock-in of, carbon intensive infrastructure as well as the emergence of growing impacts of climate change make action pre-2020 an urgent agenda. It is widely accepted that climate efforts before 2020 are necessary to reduce global emissions, help countries adapt to climate change, and accelerate sustainable development. It is agreed that developed countries should take the lead, but that all countries will be involved in efforts to address climate change. The provision of financial, technological, and capacity-building support to developing countries, to enable them to accelerate their national action, plays a key role in this regard. Consequently, it is important to take stock of what has been achieved and build on the lessons learnt.

Developed countries need to demonstrate and affirm sustained commitment to leadership. The findings in this review suggest the pressing need for developed economies to demonstrate progress made,

and continued commitment to, taking the lead on mitigation and climate finance through the stocktake on pre-2020 ambition and also through other related workstreams, including the High-level Ministerial Dialogue on Finance, the Marrakech Partnership, and the TEP. These countries need to demonstrate good faith by reaffirming their sustained commitment to early action. This requires all developed countries to step up on the provision of financial support to developing countries, especially in terms of climate adaptation, technology transfer, and capacity building. The agreed US\$ 100 billion climate finance target needs to be clearly defined using recognised and agreed criteria for comparable and transparent data, and clear guidelines for reporting information on finance. This report finds that clarity on this issue requires robust guidelines and methodologies to track and account for the provision of finance, and consistently communicate the level of developed country support.

All countries should learn from successes and failures pre-2020. Countries that are behind on implementing their 2020 mitigation pledges need to explain their position, reaffirm plans, and consider credible actions to deliver on ambitious post-2020 action, rather than transfer these gaps into the post-2020 period. Full account needs to be taken of progress and lack of progress in reducing emissions and providing support to developing countries. Such a stocktake, and related processes, present an opportunity to understand and learn from the barriers preventing countries from meeting pledges and address how to overcome them in future.

Developing countries hold the key to the entry into force of the Doha Amendment. At the time of writing, the Doha amendment required a further 30 countries that are Parties to the Kyoto Protocol to accept it, for it to enter into force. These outstanding depositions of acceptance need to come from among the 4 remaining Annex 1 Parties (Russia, Kazakhstan, Ukraine and Poland) and the 80 remaining non-Annex 1 Parties.

Discussions on pre-2020 action should not delay progress on post-2020 action. It is important to avoid using the pre-2020 stocktake and the related processes as a vehicle for broader political posturing which may delay progress on the implementation of the Paris Agreement. There is growing recognition that most extreme near-term impacts of climate change are likely to fall disproportionately on those countries most vulnerable to climate risks and least able to adapt to them. Moreover, these same countries tend to be the ones least responsible for the growing atmospheric stock of GHGs. With this in mind, it is important that the stocktake is used constructively to learn lessons and move the agenda forward without delay, noting that delay is not in any country's interests and will be particularly harmful for vulnerable developing countries.

Developing countries should prioritise pre-2020 mitigation actions with high co-benefits. As well as avoiding a game of politics, all countries need to assess what climate actions can be undertaken immediately, which are politically viable and in their near-term interests, rather than lapse into the mindset of zero-sum games. Examples include investment in reducing particulate emissions, limiting urban congestion, promoting energy efficiency and reducing waste, investing in fast growing renewable sectors, and facilitating energy security.⁴¹

Enhanced pre-2020 ambition lays a solid foundation for enhanced post-2020 ambition. With less than two years remaining till 2020, it is unlikely that the stocktake will lead to many new commitments being announced. It could, however, provide a useful avenue for assessing progress made to date and help deliver practical recommendations for Parties, not only for countries that are behind on implementing their pre-2020 pledges, but for all countries in the context of the Talanoa Dialogue and in preparation for the 2020 ratchet of the NDCs. In this context countries could consider the following issues at the stocktake:

- Factors of success for implementing the pledges and for enhancing the level of ambition.

- Challenges in implementation and how to address them.
- Challenges in raising ambition and how to address them.
- Agreed frameworks for standardisation and transparency of climate finance data.

Actions to address the pre-2020 gap can be taken beyond 2020. Proposals by the African Group, and initiatives like the Mission 2020, call for explicitly recognising the pre-2020 gaps and agreeing on a set of conscious actions to address the gaps going forward beyond 2020. Such actions could take the form of international cooperative initiatives to support actions in developing countries necessary to close the gap. This could mean committing to broader sets of milestones, such as prioritising investments in: cleaner energy technologies, mainly renewables; zero emissions transport for new mobility in major cities and transport routes; large-scale land restoration to replace deforestation; commitment from high emitting industries to comply with the Paris Agreement; and scaling up climate finance beyond US\$ 1 trillion annually, with a disclosed transition strategy for all financial institutions.

ANNEX A

Emission reduction targets for 2020 action by developed countries		
Annex I Parties	Quantified economy-wide emissions reduction targets for 2020 pledged under the Cancún Agreements	Target under the Doha Amendment for 2020
Australia	25% below 2000 levels by 2020 conditional upon a global deal capable of stabilising levels of GHGs at 450 ppm CO ₂ e or lower. Unconditional reduction by 5% below 2000 levels by 2020 and by up to 15% by 2020 if there is a global agreement which falls short of securing stabilisation at 450 ppm CO ₂ e under which major developing economies commit to substantially restraining their emissions and advanced economies take on commitments comparable to Australia.	Unconditional 5% below 2000 levels. Retains the option later to move to 15, or 25% below 2000 levels, subject to certain conditions being met.
Belarus	Reduction of 5-10% by 2020 compared with 1990 levels. Conditional on: existence of and access to the flexibility mechanisms under the Kyoto Protocol; the technology transfer, capacity-building and taking into consideration of the economies in transition, clarity on the use of new rules and modalities for LULUCF.	8% reduction below 1990 levels (however the amendment including Belarus into Annex B of the Kyoto Protocol has not entered into force at the time of writing).
Canada	17% below 2005 by 2020, to be aligned with the final economy-wide emission reduction target of the US, in enacted legislation. Made with the expectation that other Annex I Parties and major Parties not included in Annex I to the Convention (non-Annex I Parties) would submit information on their emission targets and mitigation actions by 31 January 2010, pursuant to paragraphs 4 and 5 of the Copenhagen Accord.	None.
Croatia	A temporary target of a 5% reduction by 2020 below 1990 levels. Base year calculated according to Decision 7/CP.12. Upon the accession to the EU the target will be replaced in line with, and as part of, the EU mitigation effort.	20% below 1990 levels, which could be increased to 30% (part of the EU commitment).
EU	Unconditional 20% reduction by 2020 below 1990 levels. If a global and comprehensive agreement for post-2012 is adopted, then 30% reduction by 2020 below 1990 levels. Also committed to: keeping temperature increase below 2°C degrees; peaking of global GHG emissions by 2020 at the latest, to be reduced by at least 50% below 1990 levels by 2050; and IPCC recommendation that developed countries as a group should reduce their GHG emissions to below 1990 levels by 25-40% by 2020 and by 80-95% by 2050, while developing countries as a group should achieve a substantial deviation below the currently predicted rate of growth in emissions, in the order of 15-30% by 2020.	8% reduction below 1990 levels (however the amendment including Belarus into Annex B of the Kyoto Protocol has not entered into force at the time of writing).
Iceland	30% reduction by 2020 below 1990 levels, in a joint effort with the EU, as part of a global and comprehensive agreement for the period beyond 2012. In addition, the Government of Iceland adopted in 2009 the goal of reducing the net GHG emissions by 15% by 2020 below 1990 levels, if the rules governing the Kyoto Protocol would continue to apply after 2012.	20% below 1990 levels, which could be increased to 30% (part of the EU commitment).
Japan	3.8% or more reduction in 2020 below 2005 levels.	None.
Kazakhstan	15% reduction by 2020 below 1990 levels.	5% below 1990 levels (7% if ambition is expanded).
Liechtenstein	20% below 1990 levels by 2020. If other developed countries agree to comparable reductions and emerging economies contribute within a global agreement, then Liechtenstein is prepared to raise this target to 30%.	20% below 1990; would consider up to 30% reduction subject to comparable emission reduction commitments from other developed countries and adequate contribution from developing countries.
Monaco	30% by 2020 below 1990 levels with the use of the flexibility mechanisms established under the Kyoto Protocol (in particular the Clean Development Mechanism). Aims to become carbon neutral by 2050 and maintains the possibility of exceeding its emission reduction target for 2020 through the use of mechanisms.	30% reduction below 1990.

New Zealand	Unconditional target of 5% reduction below 1990 levels by 2020. Prepared to take on a target of 10-20% reduction below 1990 levels by 2020, if there is a comprehensive global agreement.	None.
Norway	As part of a global and comprehensive agreement for post-2012, will move from its initial pledge of 30% reduction by 2020 below 1990 levels, to a 40% reduction.	30% reduction below 1990 levels.
Russian Federation	The Russian Federation communicated a target within the range of a 15-25 % emission reduction by 2020 compared with 1990 levels. The range of its emission reductions will depend on the appropriate accounting of the potential of its forestry sector and the undertaking by all major emitters of the legally binding obligations to reduce GHG emissions.	None.
Switzerland	As part of a global and comprehensive agreement for post-2012, will move from an unconditional 20% reduction by 2020 below 1990 levels to a 30% reduction.	20% below 1990; would consider up to 30% reduction subject to comparable emission reduction commitments from other developed countries and adequate contribution from developing countries.
Ukraine	20% reduction by 2020 below 1990 levels provided that: <ul style="list-style-type: none"> • Developed countries have an agreed position on the quantified emission reduction targets of Annex I Parties • Ukraine maintains its status as a country with an economy in transition and the relevant preferences arising from such status. • The existing flexibility mechanisms under the Kyoto Protocol are kept. • 1990 is kept as the single base year for calculating Parties commitments. • The provisions of Article 3, paragraph 13, of the Kyoto Protocol are used for the calculation of the quantified emission reductions. 	20% below 1990 levels.
US	17% reduction by 2020 below 2005 levels, recognizing that the final target will be reported to the secretariat in the light of the enacted legislation. The pathway set forth in pending legislation would entail a 30% reduction by 2025 and a 42% reduction by 2030, in line with the goal to reduce emissions by 83% by 2050.	None.

Source: Summary based on UNFCCC (2014). Compilation of economy-wide emission reduction targets to be implemented by Parties included in Annex I to the Convention. FCCC/SBSTA/2014/INF.6

ANNEX B: SUMMARY OF PARTY SUBMISSIONS THE 2020 STOCKTAKE IN 2018

Australia

Australia's emissions reduction targets are supported by Australian Government policies and measures, initiatives by state, territory and local governments, as well as business, industry and the community.

Australia's policy suite includes a strong emphasis on the role of research, development and innovation in forging a path to a low-emissions future. Policies aim to contribute to technology development and demonstrate possibilities to other countries. Policies include:

- The Emissions Reduction Fund, which helps Australian farmers and businesses reduce emissions while generating new income and boosting productivity;
- The Safeguard Mechanism complements the Emissions Reduction Fund by providing a framework for Australia's largest emitters to measure, report and manage their emissions;
- The Renewable Energy Target which will grow the share of renewable energy to around 23 % of electricity supply by 2020;
- The National Energy Productivity Plan (NEPP), which consolidates national, state and territory government and industry measures to provide a national framework and an initial economy-wide work plan. It aims to accelerate delivery of a 40% improvement in Australia's energy productivity by 2030; and
- The National Carbon Offset Standard, a voluntary standard to manage greenhouse gas emissions and provides benchmarks for organisations seeking to make their operations, products, services, buildings, precincts or events carbon neutral.

The Government provides support for clean energy innovation, including the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC), which together have more than US\$ 7.4 billion to invest in renewable energy, energy efficiency and low emissions technologies. The CEFC has made cumulative commitments of US\$ 3.8 billion to projects with a total value of US\$ 10 billion.

Australia pledged to provide at least US\$ 0.7 billion in climate finance over five years. This includes US\$ 220 million dedicated to climate action in Pacific countries, and US\$ 150 million contribution to the GCF.

Canada

Through the Pan-Canadian Framework on Clean Growth and Climate Change, Canada is implementing policies and measures now which will help us to achieve economy-wide emissions reductions in the pre- and post-2020 period. The Pan-Canadian Framework outlines over fifty measures to reduce carbon pollution, improve resilience to the impacts of a changing climate, and foster clean technology solutions.

Good progress has been made in implementing the Pan-Canadian Framework, including pricing carbon pollution, as well as several regulations including to phase-out coal fired electricity, reduce methane emissions from oil and gas operations, and reduce the use of climate-warming hydrofluorocarbons.

Canada is also delivering on our US\$ 2.65 billion commitment to support developing countries transition to low-carbon and climate-resilient economies.

China

China submitted its first biennial update report on January 12th, 2017 showing a comprehensive picture of China's national circumstances, climate policies, and climate actions. The technical analysis on China's first BUR was completed in April 2018.

China will endeavour to lower its carbon dioxide emissions per unit of GDP by 40~45 % by 2020 compared to the 2005 level, increase the share of non-fossil fuels in primary energy consumption to around 15 % by 2020, and to increase forest coverage by 40 million hectares and forest stock volume by 1.3 billion cubic meters by 2020 compared with the 2005 levels.

China has:

- set ambitious targets for developing and installing renewable energy, enhancing energy efficiency and optimizing energy and resource efficiency in industry;
- introduced restrictions on coal utilization. In 2017, the share of China's coal consumption in primary energy consumption was 60.4 %, decreased by 1.6 % compared with 2016 level;
- carried out pilot Emission Trading System in seven provinces/cities;
- implemented measures for adapting to climate change impacts have been taken in key sectors and regions, including agriculture, forest, and coastal areas;
- developed green finance. By the end of 2016, the outstanding green loans of the 21 major banking and financial institutions amounted to US\$ 1.1 trillion (RMB 7.51 trillion), a year-on-year increase of 7.13%. In 2016, China issued a total of US\$ 35 billion (RMB230 billion) in green bonds, accounting for 39 % of the global total. In first half of 2017 alone, China issued a total of US\$ 38 billion (RMB251.2 billion) worth of green bonds in both the domestic and overseas markets, accounting for 32.16 % of the global total.

Egypt

According to the IPCC, Egypt's Nile Delta is one of the world's top three areas vulnerable to "extreme" impacts of climate change. Egypt has developed a strong policy framework underpinned by the 2011 National Adaptation Strategy⁴² The strategy aims at increasing the resilience of Egypt to tackle the risks and impacts of climate change. In addition, the country is:

- increasing the share of electricity generation from renewable energy sources;
- reducing energy subsidies;
- applying Feed-in-Tariff to promote extensive use and dissemination of photovoltaic and wind power generation as well as waste to energy projects;
- improving transport sector using natural gas in commercial vehicles; extending the electrified underground transportation to new areas in Greater Cairo;
- preparing a National Energy Efficiency Action Plan (NEEAP) for the electricity sector to improve energy efficiency standards, expand energy efficiency labelling for household appliances, buildings, and disseminate efficient lighting; and
- enhancing the institutional structure for identifying NAMAs in various sectors in the context of national development.

European Union

EU actions, in the form of pre-2020 targets and structural policies, have already resulted in the EU exceeding its 2020 target to reduce emissions by 20% compared to 1990 levels. By 2016, the bloc had already cut them by 23 %, and was on course for a 26 % reduction.

The EU's mobilisation of climate finance has systematically and consistently increased. Total contributions from the EU and its Member States amounted to approximately US\$ 17 billion (€20.2 billion) in 2016, a significant increase of 14.7 % compared to 2015.

G77 and China submission on pre-2020 action

The submission notes that enhanced post-2020 ambition and action are inextricably linked to enhanced pre-2020 ambition and actions. It emphasises the need for:

- Increased ambition and effective action by developed countries to address their pre-2020 implementation gaps with respect to their mitigation targets, and to the provision of adaptation support, and provision of finance and technology to developing countries.
- Enhanced pre-2020 action, and support in terms of finance, technology development and transfer, and capacity building from developed countries to developing countries, to provide a solid foundation for post-2020 implementation.
- Ensuring that the developing countries are not unduly burdened in the event the gap is transferred to the post-2020 period. The group calls for an examination of how to deal with this gap in post-2020 period.

India

Even though no obligation exists on developing countries, India has voluntarily declared a goal of reducing its emissions intensity of GDP by 20-25 %, over 2005 levels, by 2020.

India's emission intensity per unit of GDP fell by 12 % between 2005 and 2010. Per capita emissions in India remain extremely low by international standards at 1.8 tonnes.

India continues to support renewables through a variety of policies to encourage wind, renewables and biofuels as well as policies to promote energy efficiency, clean transport and sustainable urban development

India has also set up a National Adaptation Fund for Climate Change.

Iran, on behalf of on behalf of Like-Minded Developing Countries

The submission calls for ratification of the Doha Amendment and greater ambition in developed country 2020 pledges. It calls for scaled up provision of finance under the Convention, noting that there exists “a huge gap in the expectations of the developing countries and delivery of the promised pre-2020 finance”.

Iran

Iran comments on the lack of ambitious pre-2020 mitigation commitments and the failure of developed countries to “fully live up to their pre-2020 promised actions to provide the means of implementation to developing country Parties”. It calls for an updated roadmap that lays out the real amount of climate financing annually raised by Annex 1 countries up until end of 2020 in order to meet the annual minimum US\$ 100 billion target.

Japan

Japan is most likely to achieve its Cancún target with a 4.6 % reduction in GHG emissions compared to 2005.

Japan has provided a variety of financial support for developing countries including “Action for Cool Earth 2.0 (ACE 2.0)”. This seeks to increase financial support to developing countries from about US\$ 8.9 billion to about US\$ 11.6 billion in 2020, through support for programmes to build capacity and strengthen innovation.

Japan is supporting specific capacity building programmes on adaptation, mitigation and transparency to assist the implementation of NDCs in developing countries through its Assistance Initiative to Address Climate Change.

Mexico

Mexico continues to enhance its General Law on Climate Change (LGCC). Mexico maintains its aspirational target of reducing GHG emissions by 30% by 2020 below the emissions baseline, as indicated for the Cancún Agreements. The 2013 Energy Reform opens up by auction competition from private investment in the oil, gas and electricity sectors, supports the transition towards a low carbon development, starting with projects and investments in the pre-2020 period. Mexico adopted energy efficiency targets of improved efficiency by 1.9 % annually between 2016 and 2030. Support for bus rapid transit systems and other mass transport options became a priority for allocation of federal funding.

Norway

In June 2017, the Norwegian Parliament adopted a Climate Change Act, which establishes by law Norway's emission reduction targets for 2030 and 2050. Norway's climate target for 2020 is to reduce emissions by 30% relative to 1990 which Norway is on target to meet. Action on land use and participation in the European ETS continue to reduce emissions. Over 80% of Norway's domestic emissions are subject to mandatory emissions trading or a tax on GHGs, or both. The CO2 tax is now levied on about 60% of total GHG emissions. The standard CO2 tax was US\$ 50 per tonne in 2017, and was increased to 500 kroner per tonne in 2018. In 2107, the Norwegian government set new ambitions for zero emission vehicles in 2025 and 2030.

In 2016, total public development climate finance amounted to around US\$ 500 million.

Oman

Oman plans to implement the Doha Amendment to the Kyoto Protocol and submit a Biennial Update Report.

Singapore

Singapore has committed to reduce GHG emissions by 16% below BAU (based on 2005 projections) by 2020 and is well on track to meet this. Singapore will implement a carbon tax starting at US\$ 3.80 per tonne of CO2-eq of GHG emissions in the first instance, between 2019 and 2023, as a transition period. The carbon tax will apply uniformly to all sectors, without exemption, and cover around 80% of national emissions. It is intended to increase the tax to US\$ 7.60 - US\$ 11.40 per tonne of CO2-eq by 2030.

Singapore established the Sustainable Development and Climate Change (SDCC) programme in 2012. The SDCC is tailored to meet the needs of our developing country partners, including Small Island Developing States and Least Developed Countries.

Singapore is on track towards achieving 4.179 million tonnes (MT) of CO2-eq abatement from these measures to shift Singapore towards cleaner energy sources by 2020, with an estimated 4.015MT of CO2-eq abatement achieved in 2014. Singapore has introduced a raft of measures to improve industrial efficiency and promote investing and green buildings high rating Green Mark (GM) certified building standards.

Singapore continues to shift travel demand towards low-emission modes and reducing vehicular emissions while increasing the public transport modal share, building on existing public transport infrastructure and electronic road pricing. At the same time Singapore continues to implement tough emissions standards. Singapore continues to set world standards on water and waste water treatment and recycling of materials.

New Zealand

New Zealand is on track to meet its 2020 target to reduce emissions to 5 % below 1990 by 2020 and is poised to introduce a Zero Carbon Bill this year, setting a 2050 emissions reduction target. The act will establish carbon budgets and an independent Climate Change Commission to keep New Zealand on track to meet its goals. In addition, the government has announced it will end the granting of permits for new offshore oil and gas exploration in New Zealand. The country has also set a target of increasing the share of electricity generated using renewable resources to 90% by 2025.

New Zealand is set to deliver on its pledge to provide US\$ 90 million of climate-related support over four years (2015-2019). New Zealand's Third Biennial Report reports climate-related support for developing countries across 2013-2016 to have totalled approximately US\$ 110 million over those years.

New Zealand established the Global Research Alliance on Agricultural Greenhouse Gases (GRA) in 2009, which now has 50 member countries and 17 partner organisations and has invested approximately US\$ 33 million to lead international efforts in developing and transferring best practices that address agricultural mitigation challenges and improve farm productivity.

Switzerland

Switzerland's GHG emissions have declined to 89.9% compared to their 1990 level in spite of a 49% growth of the per capita GDP in the same period, and a population growth of 23%. In 2016, Switzerland provided US\$ 330 million in public finance through bilateral and multilateral channels to its partner countries to support them in their effective climate mitigation and adaptation action.

Switzerland continues to promote innovation in and diffusion of low carbon technologies through the Swiss interdepartmental platform on Renewable Energy and Energy Efficiency Promotion in International Cooperation. Switzerland has currently one of the highest rates of CO₂ levy in the OECD (€77 per tonne). The CO₂ levy on combustible fuels is enshrined in the CO₂ Act with proceeds targeted towards a green buildings programme and a clean technologies fund.

REFERENCES

1. IPCC (2018). *Global Warming of 1.5°C*. Intergovernmental Panel on Climate Change, Geneva.
2. IPCC (2014). *Fifth Assessment Report*. Intergovernmental Panel on Climate Change, Geneva.
3. Ibid.
4. Ibid. See also: Fay, M., Hallegatte, S., Vogt-Schilb, A., Rozenberg, J., Narloch, U. & Kerr, T. (2015). *Decarbonizing Development: Three Steps to a Zero-Carbon Future*. *Climate Change and Development*. World Bank.
5. Stern, N. (2015). *Why Are We Waiting? The Logic, Urgency, and Promise of Tackling Climate Change*. Cambridge, MA: MIT Press. See also: Pfeiffer, A., Millar, R., Hepburn, C. & Beinhocker, E. (2016). *The '2°C capital stock' for electricity generation: Committed cumulative carbon emissions from the electricity generation sector and the transition to a green economy*. *Applied Energy*. ISSN 0306-2619.
6. BASIC (2018). *Joint Statement Issued at the Conclusion of the 26th BASIC Ministerial Meeting on Climate Change*. 28 May 2018.
7. UNFCCC (2010). *Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009. Addendum Part Two: Action taken by the Conference of the Parties at its fifteenth session*. Decision 2/CP.15. FCCC/CP/2009/11/Add.1. 30 March.
8. The Talanoa Dialogue is a process designed to help countries implement and enhance their NDCs by 2020 by sharing

ideas and experiences.

9. UNFCCC (2013). *Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013. Addendum Part two: Action taken by the Conference of the Parties at its nineteenth session*. Decision 1/CP.19. FCCC/CP/2013/10/Add.1
10. UNFCCC (2014). *Report of the Conference of the Parties on its twentieth session, held in Lima from 1 to 14 December 2014. Addendum Part two: Action taken by the Conference of the Parties at its twentieth session*. Decision 1/CP.20. FCCC/CP/2014/10/Add.1
11. The first high-level champions in 2016 were Dr. Hakima El Haite, Delegate Minister in Charge of Environment and Climate Champion, Morocco; and Ambassador Laurence Tubiana, Climate Champion, France. Currently this role is fulfilled by Inia Seruiratu, Minister for Agriculture and Minister for Rural and Maritime Development and National Disaster Management, Fiji; and Tomasz Chruszczow, Special Envoy for Climate Change, Ministry of Environment, Poland.
12. For more information on the TEP-A, see [here](#).
13. For more information on the Facilitative Dialogue, see the UNFCCC website on *Facilitative Dialogue on Enhancing Ambition and Support - Assessing the progress in implementing paragraphs 3 and 4 of decision 1/CP.19*.
14. UNFCCC (2018). *Additional information on progress in implementing enhanced action prior to 2020 in accordance with Decision 1/CP.21, section IV: Synthesis report by the secretariat*. 14 September.
15. BASIC (2018). *Joint Statement Issued at the Conclusion of the 26th BASIC Ministerial Meeting on Climate Change*. 20 May 2018.
16. IPCC (2007). *Climate Change 2007: Synthesis Report*. Contribution of Working Groups I, II and III to the *Fourth Assessment Report* of the Intergovernmental Panel on Climate Change. ISBN 92-9169-122-4.
17. UNEP (2010). *The Emissions Gap Report 2010*. UN Environment Programme.
18. UNEP (2012). *The Emissions Gap Report 2012*. UN Environment Programme.
19. The full reference list of contributing studies is listed in the references to Chapter 2 of *The Emissions Gap Report 2017*.
20. According to *The Emissions Gap Report 2017*, the potential impact of using offsets to achieve pledges is not quantified for the emission trajectories considered. Most countries have not clarified their intentions concerning their use of offsets to meet their 2020 pledges. Australia, Brazil, Canada, the EU, and the US have explicitly not excluded the possibility; other members have not formally commented.
21. This assessment is based on a number of recent studies, including: Climate Action Tracker, Climate Analytics, Ecofys and New Climate Institute (2017). *Action by China and India slows emissions growth, President Trump's policies likely to cause US emissions to flatten*, Policy Brief; Climate Advisers (2017). *TrumpBackTracker*; Climateinteractive (2017). *What Slashing Climate Rules Means For the U.S. Pledge to Paris*; Hafstead, M. (2017). *On Trump, Paris, and Greenhouse Gas Emissions*. Resources for the Future; and Larson, K. et al. (2017). *Taking Stock 2017: Adjusting Expectations for US GHG Emissions*. Rhodium Group.
22. See *Climate Action Tracker* (2017) and PBL (2017). *PBL Climate Pledge NDC tool*. PBL Netherlands Environmental Assessment Agency.
23. Government of Canada (2017). *Canadian Environmental Sustainability Indicators: Progress Towards Canada's Greenhouse Gas Emissions Reduction Target*. Environment and Climate Change.
24. Government of Canada (2016). *Canada's Second Biennial Report on Climate Change*. Environment and Climate Change.
25. UNFCCC (2011). *Compilation of information on nationally appropriate mitigation actions to be implemented by Parties not included in Annex I to the Convention*. FCCC/AWGLCA/2011/INF.1.
26. For more detail on the controversy see, for example, Parnell, J. (2020). *Belarus threaten to leave Kyoto Protocol after Doha controversy*. *Climate Home News*.
27. Ministry of Energy of the Republic of Kazakhstan (2015). *The Second Biennial Report of the Republic of Kazakhstan*.
28. UNFCCC (2015). *Paris Agreement*. Article 9.1.
29. UNFCCC (2015). *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum Part two: Action taken by the Conference of the Parties at its twenty-first session*. Decision 1/CP.21. FCCC/CP/2015/10/Add.1
30. CPI (2017). *Global Landscape of Climate Finance 2017*. Climate Policy Initiative.

31. IEA (2017). *World Energy Investment 2017*. Paris, France. International Energy Agency.
32. SCF (2016). *2016 Biennial Assessment and Overview of Climate Finance Flows Report*. Standing Committee on Finance.
33. OECD (2015). *Climate finance in 2013-14 and the USD 100 billion goal*. Organisation for Economic Co-operation and Development, in collaboration with Climate Policy Initiative.
34. Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, European Union, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and United States (2016). *Roadmap to US\$100 Billion*.
35. BASIC (2018). *Joint Statement Issued at the Conclusion of the 26th BASIC Ministerial Meeting on Climate Change*. 20 May 2018.
36. GCF (2018). *Risk Dashboard Q2 2018*. Green Climate Fund.
37. EU (2018). *Submission by Bulgaria and the European Commission on Behalf of the European Union and its Member States*. Bulgarian Presidency of the Council of the European Union.
38. Government of Japan (2018). *Submission from Japan - Pre-2020 implementation and ambition*.
39. M2020 (2017). *The Climate Turning Point*. Mission 2020.
40. AGN (2015). *Statement on behalf of the African Group of Negotiators (AGN) by the Republic of the Sudan, at the Opening Plenary of Ninth Part of the Second Session of the Ad Hoc Working Group on Durban Platform for Enhanced Action (ADP 2.9) Bonn, Germany, 01-11 June 2*. Africa Group of Negotiators.
41. See, for example, Averchenkova, A., Stern, N. and Zenghelis, D. (2014). *Taming the beasts of 'burden-sharing': An analysis of equitable mitigation actions and approaches to 2030 mitigation pledges*. Grantham Research Institute. London School of Economics.
42. Government of Egypt and UNDP (2011). *National strategy for adaptation to climate change and disaster risk reduction (2011)*.