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Mobilizing and transferring knowledge on post-2012 climate policy implications

D3.1: Status quo of climate negotiations

Project Coordinator: **JIN**

Work Package **3** Leader Organization: **Climate Strategies**

Authors: **Noriko Fujiwara, Centre for European Policy Studies**

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Preface

POLIMP intends to facilitate a process to identify, for different policy and decision making levels, knowledge gaps about implications of possible directions of international and EU climate policies. The core objective is to cover these gaps with knowledge packages derived from a broad range of existing reports, research and climate policy decisions at, e.g., EU and UNFCCC levels. With these information packages, climate policy associated stakeholders will be better able to extract key policy conclusions. Through series of workshops these packages will be communicated with stakeholders and collect feedback. In addition, POLIMP will develop a knowledge platform for EU policy makers on climate policy implications.

Knowledge gaps will be identified for a range of priority issues related to climate policy making in consultation with stakeholders, but as a starting point for discussion the following three (categories of) issues are suggested by the POLIMP partners:

- ⤴ What would different possible international climate policy scenarios entail for EU society, business, Member States and EU as a whole, in the terms of economic, social, and environmental impacts looking especially at likely reactions and resulting political acceptability for different groups such as those impacted by job losses and reductions in welfare as well as potential gains?
- ⤴ How can EU stakeholders deliberate in an evidence based manner about the advantages and disadvantages of these different scenarios?
- ⤴ How can EU and EU stakeholders learn from design and implementation of climate policies worldwide as well as share the experience the EU has gained in designing and implementing climate friendly actions?

Project Partners

N°	Participant name	Short Name	Country code
CO1	Joint Implementation Network	JIN	NL
CB2	Centre for European Policy Studies	CEPS	BE
CB3	University of Piraeus Research Center	UPRC	GR
CB4	Universität Graz	UNI GRAZ	AT
CB5	Ecologic Institut Gemeinnützige GmbH	ECOLOGIC	DE
CB6	Climate Strategies	Climate Strategies	UK
CB7	Fundacja Naukowa Instytut Badan Strukturalnych	IBS	PL



Table of Contents

EXECUTIVE SUMMARY	4
1 INTRODUCTION.....	5
PART I STATUS QUO AT COP19: SETTING THE STAGE	6
2 NECESSARY EMISSION REDUCTIONS	6
3 INTERNATIONAL NEGOTIATION PROCESS	10
3.1 The 2015 agreement	13
3.1.1 Nature of the 2015 agreement.....	13
3.1.2 Coverage of the 2015 agreement	13
3.1.3 Scope of the 2015 agreement: Who should take on commitments?	14
3.2 The post-2020 mitigation framework.....	15
3.2.1 National determination of mitigation commitments and international consultation	16
3.2.2 MRV and accounting	22
3.3 Pre-2020 pledges/ambition	23
3.3.1 Scope of the pre-2020 framework under the Convention.....	24
3.3.2 Scope of the pre-2020 framework under the Kyoto Protocol	25
3.3.3 Pre-2020 pledges.....	25
4 Expected outcomes from COP19 in Warsaw	28
4.1 2015 agreement.....	29
4.2 The post-2012 mitigation framework.....	29
4.3 Pre-2020 pledges/ambition	30
5 Outcomes of COP19.....	30
6 SUMMARY.....	31
PART II: STATUS QUO AT COP21 AND AFTER	33
7 OUTCOMES OF COP21	33
7.1 'PARIS FRAMEWORK': PARIS AGREEMENT AND COP DECISION	33
7.1.1 Nature of the Agreement and Decision: legally-binding or not.....	33
7.1.2 Coverage of the Agreement and Decision: comprehensiveness	34
7.1.3 Scope of the Agreement and Decision: differentiation	36
7.2 POST-2020 MITIGATION.....	37
7.2.1 Climate science and intended nationally determined contributions (INDCs).....	37
7.2.2 The COP21 outcome	39
7.3 PRE-2020 PLEDGES	41
8 NEXT STEPS FOR THE EU	41

REFERENCE..... 43

Glossary 47

Figures

Figure 1: Necessary emission reductions	7
Figure 2: GHG Emission pathways to 2030	38

Tables

Table 1: Estimates of the effects of the pledges on deviation from projected 2020 levels and per capita emission levels	9
Table 2: UNFCCC negotiation tracks relevant to science, mitigation and transparency	12

EXECUTIVE SUMMARY

The COP19 in Warsaw as well as the COP20 in Lima were crucial in determining the prospect for reaching a new climate agreement in 2015 for its entry into force in 2020 and its implementation onwards. This report reviews the current status of UNFCCC climate negotiations.

According to the latest emission trends and estimates, due to the continuous consumption of fossil fuel energy, the average global temperature rise is likely to approach by 2011 much higher than the level previously estimated to result from full implementation of existing and proposed policies to meet current pledges by Parties. To keep the likelihood of limiting the temperature rise below 2°C, it is necessary to shift the GHG emissions trajectory by 2020. The size of necessary emission reductions to stay on track within the 2°C limit depends on the degree of implementing the pledges. There are significant contributions in terms of both the number of Parties putting forward voluntary pledges, resulting in the Cancún Agreement, and the level of ambition in commitments by Parties staying in the 2nd Commitment Period of the Kyoto Protocol. Nevertheless, this is far from sufficient to meet the 2°C goal, creating a big emission gap to be filled by 2020.

To address this challenge, Parties agreed in 2011 on the goal of reaching a new climate agreement in 2015 and launched the negotiation process called the Ad-hoc Working Group on the Durban Platform for Enhanced Action (ADP). The ADP consists of two negotiating tracks focusing on the post-2020 framework and on the pre-2020 ambition. These tracks run in parallel with the ratification of the Doha Amendment to the Kyoto Protocol for the 2nd Commitment Period.

COP19 in Warsaw led to a new decision taking stock of the ADP work and moving forward. On the 2015 agreement, the ADP should elaborate in early 2014 elements for the draft negotiating text. On the post-2020 framework, Parties agree on presenting 'intended nationally determined contributions (INDCs)' in a clear and transparent manner by March 2015, and discussing the type of information to explain the contributions at COP20 in 2014. On the pre-2020 ambition, Parties agreed on the technical examination of mitigation potential options and information sharing on best practices.

The Paris Agreement was successfully adopted by 195 countries in December 2015. It is considered to be a legally-binding comprehensive agreement applicable to all parties and based on so-called 'self-differentiation' through (I)NDCs. The level of ambition in the Agreement is much higher than negotiators and observers anticipated: limiting the temperature increase well below 2°C, an aspirational goal of 1.5°C goal, and net zero-emissions in the second half of the century. The feasibility of the 1.5°C goal will be further examined by IPCC in a forthcoming special report in 2018, which will inform the first facilitative dialogue in the same year. The global emission level in 2030 resulting from the current INDCs is insufficient compared to what is required to stay below 2°C by 2100. Parties are committed to a five-year cycle of proposing and increasing the level of ambition in NDCs. Their progress towards the long-term goal will be subject to a review process called the *global stocktake* starting from 2023. Other notable achievements include establishment of a transparency framework, a facilitative compliance mechanism, and recognition of voluntary contribution to financial support by mid-income developing countries. The EU made a positive assessment over the COP21 outcome compared to what they had expected, and identified the next steps including signing and ratification of the Agreement, support for the IPCC study as well as the facilitative dialogue, and completion of the 2030 climate and energy framework combined with broader policies to support enabling conditions for economic and social transitions.

1 INTRODUCTION

The annual climate change conferences (the 19th Conference of Parties, COP19 in November 2013 and COP20 in December 2014) were crucial in determining the prospect for conclusion of an international climate change agreement under the UN Framework Convention on Climate Change (hereafter, the Convention). It was necessary to conclude the agreement in COP21 at the end of 2015 to enter into effect in 2020, The Ad-hoc Working Group on the Durban Platform for Enhanced Action (ADP) aimed to feed the outcome of the Warsaw session into a clear roadmap to be agreed in 2014 so that a draft negotiating text can be made available in May 2015 at latest.

This short paper presents the overview of the negotiation process and countries' positions in the run up to COP19, addressing two major topics, the post-2020 framework (ADP Workstream 1) and pre-2020 pledges (ADP Workstream 2). This paper was written before the start of COP19, revised with its outcome after the conference, then updated after COP21.

The paper first sets out the context: estimating necessary greenhouse gas (GHG) emission reductions up to 2050 and identifying the gap between where the emissions trajectory should be in 2030, then 2020 and where the sum of current pledges will likely lead. Then, it will address who should take mitigation commitments in the 2015 agreement and look into the state of discussions on the post-2020 framework (ADP Workstream 1) as well as pre-2020 pledges (ADP Workstream 2), highlighting Parties' positions on these questions. Finally, it highlights the key elements of the Paris Agreement as well as the implementing Decision, and indicates the next steps for the EU.

PART I STATUS QUO AT COP19: SETTING THE STAGE

2 NECESSARY EMISSION REDUCTIONS

The Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) shows the evidence that limiting the average global temperature rise to less than 2°C above pre-industrial levels would reduce the risk of causing irreversible changes to the climate system. A greater temperature rise is expected to have negative impacts on ecosystems, human health, water availability, agriculture, and economic activities, and these impacts are likely to be unevenly distributed across world regions.

Recent emission trends and estimates of the effects of existing and proposed policies lead to a new estimate that the average global temperature increase is likely to approach 4°C above pre-industrial levels by 2100, significantly above the level that would result from full implementation of current pledges by Parties, 3.3°C. The higher estimate takes into account the continuous consumption of fossil fuel energy in the past decade.¹

Among other scenarios developed for the IPCC AR5, the most stringent mitigation scenario assumes peaking CO₂ emissions in 2015-2024, then a peaking atmospheric CO₂ concentration below 450ppm around 2050 and a declining concentration afterwards through net CO₂ removals from the atmosphere (IPCC 2013 in Öko Institut 2013). To maintain the likelihood of a temperature rise below 2°C, it is necessary to limit the cumulative CO₂ emissions during the industrial period to about 1000 Gigatons (Gt) carbon (IPCC 2013 in Öko Institut 2013). Current emissions are estimated at 49 GtCO_{2e} per year. The following graph (Figure 1) shows where the emissions trajectory should be in 2020 to stay within the 2°C limit, i.e. about 44 GtCO_{2e} per year.

¹ Climate Action Tracker, Press Release, 12 June 2013.

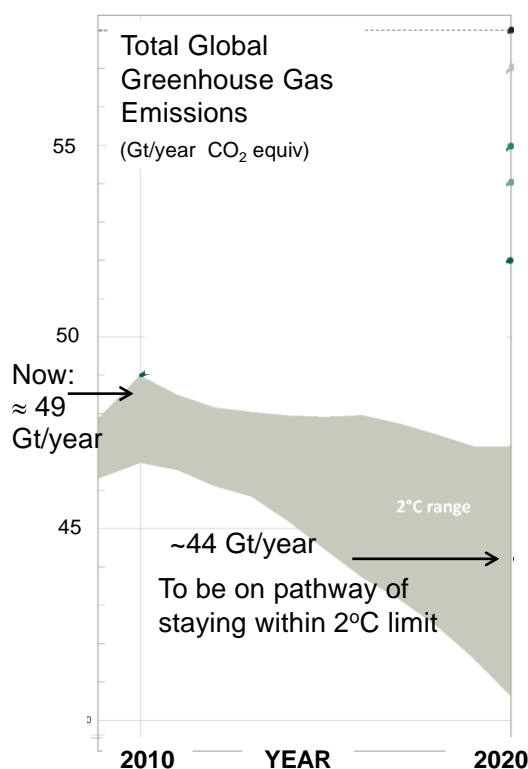


Figure 1: Necessary emission reductions

Source: UNEP (2013)²

The size of necessary emission reductions to stay on track within the 2°C limit varies between cases depending on how pledges are implemented (UNEP 2013):

- Under business-as-usual (BAU), the gap would be 14 GtCO₂e/yr;
- Under different cases of country pledges, the gap would be 8-13 GtCO₂e/yr³;
- Under the most ambitious case, the gap would be 8 GtCO₂e/yr.

Under the Cancún Agreement and until 2012, a large number of Parties have made pledges to stabilise or reduce GHG emissions by 2020. Emission reduction pledges have been made by more than 90 Parties whose emissions and removals represent around 80 % of the global total emissions, including emissions and removals from land use, land-use change and forestry (LULUCF). These pledges encompass quantified economy-wide emission reduction targets (QEERTs) under the Convention for all developed countries, and quantified emission limitation or reduction objectives (QELROs) under the

² J. Alcamo (UNEP), 'Bridging the emissions gap: closing the gap and reaping the co-benefits', presentation at the ADP workshop, climate negotiations meeting, Bonn, 5 June 2013; and for the full report, see UNEP (2013) http://unfccc.int/files/meetings/bonn_jun_2013/in-session/application/pdf/adp2-2_workshop_ws2_building_practical_approach_05062013_alcamo.pdf

³ If countries implement the lowest pledges with use of AAU surplus and LULUCF, emissions in 2020 would be reduced to 56-57GtCO₂e, leaving a gap of 13 GtCO₂e. If countries move to the higher pledges, avoiding a net increase of emissions through a limit to use of AAU surplus and LULUCF, emissions in 2020 would be reduced to 41-52GtCO₂e, leaving a gap of 8 GtCO₂e (UNEP 2011, 2012 in Öko Institut 2013).

second commitment period (2013-20) of the Kyoto Protocol by developed countries assuming commitments for this period. For developing countries, these pledges are in the form of nationally appropriate mitigation actions (NAMAs) (UNFCCC 2013a, b).

During the second commitment period, Parties are committed to reducing GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020.⁴ The level of pledges is significant but far from sufficient to meet the 2°C goal according to current scenarios, which creates a big gap to be closed by 2020. The sum of current pledges by Annex I countries amounts to only a 12-18% emission reduction in 2020, still about 10 percentage point short of reaching the lower end of the 25-40% emission reduction below 1990 levels, which the 2007 IPCC report (AR4) considered necessary to stay within the 2°C limit (Öko Institut 2013). The EU's domestic GHG emissions in 2011 were already 18.3% below 1990 levels (Council of the EU 2013), very close to reaching its 20% emission reductions target of 2020, yet still short of its more stringent conditional pledge of 30%.

On the other hand, total emission reductions in non-Annex countries including LULUCF are calculated to add up to 4.39 CO₂e in 2020 (Öko Institut 2013). This will be about 12% below BAU, yet still about 3 percentage point short of the lower end of the 15-30% emission reduction below BAU, which the 2007 IPCC report (AR4) considered necessary to stay within the 2°C limit (Fenhann 2012 in Öko Institut 2013). Table 1 summarises the data of G20 members.

⁴ http://unfccc.int/kyoto_protocol/items/2830.php; for further detail see A. Annex B to the Kyoto Protocol, Annex I, Decision 1/CMP.8, Amendment to the Kyoto Protocol pursuant to its Article 3, paragraph 9 (the Doha Amendment) <http://unfccc.int/resource/docs/2012/cmp8/eng/13a01.pdf#page=2>

Table 1: Estimates of the effects of the pledges on deviation from projected 2020 levels and per capita emission levels

	BAU 2020	2020 under pledges (unconditional/conditional)		Deviation from a base year emission levels (base/unconditional pledges/con. ones)			Eq. emission reductions from 2020 BAU (sensitive to the choice of BAU)	
	MtCO ₂ e	Uncon.	Con.	Base	Uncon. Ple	Con.	Uncon. Ple.	Con. Ple.
EU-27	5,589	4,471	3,912	1990	-20%	-30%	1,118	1,677
US	7,105	5,964		2005	-17%		1,141	
China	13,795	13,447		2020	Deviation in emission intensity estimated to - 3% (sensitive to GDP)		348 (very uncertain, sensitive to GDP, BAU)	
India	3,857	3,760		2020	Deviation in emission intensity estimated to - 2% (sensitive to GDP)		96 (very uncertain, sensitive to GDP, BAU)	
Japan	1,330	955		1990	-25%		375	
Russia	2,500	2,861	2,565	1990	-15%	-25%	Would allow for surplus: 64 to 364 above BAU	
Brazil	3,216	1,900-2,020		2020	-36%	-39%	1,106	1,219
South Korea	745	569		2020	-30%		176	
Mexico	882	617		2020	-30%		265	
Canada	832	636		2005	-17%		196	
Indonesia	2,533	1,816	1,548	2020	-26%		718	985
Turkey	613				No pledge		n.a.	
Australia	632	538	425	2000	-5%	-15%, - 25%	94	207
Argentina	391	n.a.		No quantified pledge			n.a.	
S. Arabia	793	n.a.		No pledge			n.a.	
S. Africa	715	493		2020	-34%		222	

Source: Reproduced from the table in European Commission (2013) sourcing from the UNEP emission gap report 2012, section 2.5

Among G20 members, this paper reviews submissions from the following Parties: EU-27, US, China, India, Japan, Brazil, South Korea, Canada, Indonesia, Australia, and South Africa (for further detail, see Chapter 3).

In addition to the emissions gap, surplus assigned amount units (AAUs) and land-use, land use change and forestry (LULUCF) would further undermine the environmental effectiveness of current pledges (Öko Institut 2013). The current emissions gap has increased from that of the previous UNEP assessment⁵ due to higher economic growth than expected and inclusion of double-counting of emission offsets in the calculations (Höhne and den Elzen 2013).

To narrow the gap, technical options are available but success depends on the political will to implement them. The technical potential for emission reductions by 2020 is estimated by UNEP around 17+/-3 GtCO₂e at marginal costs below US\$ 50-100/tCO₂e (UNEP 2012 in Öko Institut 2013). Against the estimated gap of 8-13 GtCO₂e, the implementation of the most stringent, conditional pledges (2-3 GtCO₂e/year), limit to the use of credits from forests and surplus emission units and avoidance of double-counting of emission offsets (1-2 GtCO₂e/year) could narrow the gap. Then implementation of measures beyond current pledges could potentially close the gap (Höhne and Den Elzen 2013).

3 INTERNATIONAL NEGOTIATION PROCESS

The UNFCCC (or called the 'Convention' interchangeably) adopts multiple negotiation tracks focusing on the science, mitigation, or/and transparency: the Ad-Hoc Working Group on the Durban Platform for Enhanced Action (ADP) with two workstreams; the Work Programme on clarification of QEERTs of developed countries under the Subsidiary Body for Scientific and Technological Advice (SBSTA); and the 2013-2015 Review under the SBSTA as well as the Subsidiary Body for Implementation (SBI). The ADP consists of the 2015 agreement to establish the post-2020 framework (Workstream 1) and pre-2020 pledges/ambition (Workstream 2). Decisions and conclusions at the Ad-Hoc Working Groups and SBSTA/SBI will be expected to feed into COP decisions. The table below (Table 2) summarises basic elements of individual negotiation tracks established under the Convention. In addition, the process for the ratification of the Doha Amendment to the Kyoto Protocol runs in parallel. The Doha Amendment has two objectives particularly relevant to the scope of this paper: QELROs of developed countries in the 2nd Commitment Period (CP2) of the Kyoto Protocol (2013-20) and a revised list of GHGs to be reported in this period. Its entry into force requires acceptance by at least 144 Parties.

As a background, this chapter summarises the status quo of climate negotiations based on review of submissions by Parties to the ADP's two Workstreams and the SBSTA concerning the Work Programme on clarification of QEERTs of developed countries between March 2013 and November 2013. The review was not intended to be comprehensive in coverage of countries or into technical detail, but to highlight the major points of discussions, especially where Parties disagree. A limited number of Parties' submissions were selected on the ground that i) these Parties are among G20 and therefore can be seen as major emitters who could make difference to the size of the emissions gap; and ii) their submissions include a concrete proposal with clear timelines and milestones. This review

⁵ The gap in 2020 has increased to 8-13 GtCO₂e from 6-11 GtCO₂e in the previous assessment (Höhne and Den Elzen 2013).

therefore took into account submissions by the following Parties in March-November 2013: EU-27, US, China, India, Japan, Brazil, South Korea, Canada, Indonesia, Australia, and South Africa.⁶

The chapter consists of three sections: the 2015 agreement; the post-2020 framework; and pre-2020 pledges/ambition. The first two sections focus on discussions at ADP Workstream 1: firstly on the coverage and scope of the 2015 agreement (section 3.1); and secondly on the key elements of the post-2020 framework (section 3.2). Section 3.1 first suggests how the 2015 agreement should look like, then briefly discusses mitigation commitments in the context of the coverage ('mitigation at centre' among other key elements) and scope ('applicable to all Parties'). Section 3.2 focuses on practical steps to nationally determine and adjust mitigation commitments while taking into account transparency requirements. Section 3.3 turns to discussions at ADP Workstream 2, pre-2020 pledges.

⁶ Among G20, Russia submitted only the Russian language versions. There is no record of submissions by Mexico, Argentina, Turkey and Saudi Arabia during the targeted period. <http://unfccc.int/bodies/awg/items/7398.php>

Table 2: UNFCCC negotiation tracks relevant to science, mitigation and transparency

	ADP Workstreams		SBSTA Work Programme	SBSTA/SBI
Process	WS1 (2015 agreement)	WS2 (pre-2020 ambition)	Work Programme on Clarification of QEERTs of Developed Country Parties	2013-2015 Review
Period	2012-15	2012-15	2013-2014	2013-15
Objectives	Developing the 2015 agreement	Enhancing mitigation ambition	Clarification of QEERTs of developed countries	Periodical review of the adequacy of the long-term global goal and of the overall progress towards the long-term global goal
Expected outcome	Adoption of the 2015 agreement, applicable to all Parties, at COP21 in 2015, for its entry into force and implementation from 2020	Identification of options for a range of actions that can close the ambition gap with a view to ensuring the highest possible mitigation efforts by all Parties	Identification of common elements for measuring the progress towards the; Ensuring the comparability of efforts among developed country Parties	Presentation of the review outcome
Forms of outcome	A protocol, another legal instrument or an agreed outcome with legal force under the Convention			COP decisions

Source: <http://unfccc.int>⁷

QEERTs: quantified economy-wide emission reduction targets

⁷ The table is produced by the author, compiling information sourced from the UNFCCC official website.

3.1 The 2015 agreement

In the Pre-COP Ministerial meeting in October 2013, Ministers noted that all elements such as mitigation, adaptation and means of implementation must be addressed in the agreement in a balanced manner, that the success of the new agreement depends on the level of participation by Parties. Clarification was needed on how to capture differentiation of the commitments to ensure universal participation, and how the 'legally-binding' concept will work in practice (Poland 2013).⁸ This section addresses the questions of differentiation as well as the coverage, highlighting contrast between different positions of Parties.

3.1.1 Nature of the 2015 agreement

The Ad-hoc Working Group on the Durban Platform for Enhanced Action aims at laying the foundation for developing a global and comprehensive legally-binding agreement under the Convention that is applicable to all Parties, and at ensuring that mitigation action before 2020 will be enhanced. In Durban, Parties agreed on the general terms that the 2015 agreement should be ambitious, sufficient, applicable to all Parties with fair share, comprehensive (mitigation, adaptation, means of implementation, and transparency of action and support), legally-binding and be adopted by 2015 at latest to enter into force by 2020 (EU 2013a, b).

To accomplish the broadest possible participation in the 2015 agreement, Canada believed that the new agreement should provide for flexibility, transparency and accountability; encourage greater and broader ambition continually; and facilitate Parties in meeting their commitments (Canada 2013). Stressing the equal importance of mitigation and adaptation, South Africa suggested that a future agreement shall be dynamic, cost-effective and fair (Öko Institut 2013). To realise broader participation through the 2015 agreement, Korea stressed the three points to be taken into account: national circumstances, balance between stringency and participation, and incentivising more ambitious action (Korea 2013).

3.1.2 Coverage of the 2015 agreement

The first major point of discussions was whether the 2015 agreement should have a comprehensive coverage as above or focus on the areas particularly in need of enhanced action.

Developed countries in general prioritised mitigation where the ambition gap should be narrowed. The US believed that the 2015 agreement should focus on the approach to mitigation, given that it was the main issue in need of updating as the Cancun mitigation commitments (and Kyoto commitments for those that undertook them) generally would not extend beyond 2020 (Öko Institut 2013). Japan believed that mitigation, in particular submission of a mitigation commitment, should be a core element of the post-2020 framework (Japan 2013b). Australia similarly argued that the core of the 2015 agreement must be a mitigation system in which all countries contribute to reducing or limiting

⁸ Also see <http://climate-l.iisd.org/news/pre-cop-19-meeting-focuses-on-business-involvement-2015-agreement-loss-and-damage/218860/>

emissions, deepening their contribution over time, while differences in circumstances and capacity are accommodated through a flexible and dynamic system of commitments (Australia 2013a).

Developing countries, however, insisted that the four building blocks of the Convention, mitigation, adaptation, finance and technology, should be equally treated. Developing countries reiterated the importance of financial and technical assistance to developing countries (Japan 2013a). BASIC ministers stress the need for 'a balanced approach between all pillars of the Durban Platform' including mitigation, adaptation, finance, technology development and transfer, and transparency of action and support (BASIC 2013). According to South Africa, this meant that Parties should formulate their mitigation, adaptation, finance, technology and capacity building contribution to the global effort (South Africa 2013a). Outside the BASIC group, Indonesia suggested that the scope, structure and design of the 2015 agreement shall be legally binding and shall include a spectrum of commitments of each Party in terms of mitigation, adaptation and means of implementation (Indonesia 2013a).

3.1.3 Scope of the 2015 agreement: Who should take on commitments?

The second major point of discussions was the interpretation of the 2015 agreement to be "applicable to all Parties".

Developed countries in general understood that all Parties would participate in the 2015 agreement, taking on commitments primarily in enhanced mitigation action. The EU believed that all Parties should have mitigation commitments that are ambitious, fair, legally-binding and applicable to all Parties. Such commitments should reflect the changed and changing responsibilities and capabilities of Parties (EU 2013a, b). Australia argued that an effective 2015 agreement must be built on global participation, with a design that is fair, flexible, robust and dynamic (Australia 2013a). Japan believed that all Parties should have the same international obligation to submit their commitments in a way that allows comparing, evaluating and reviewing the performance and effects of each Party's efforts (Japan 2013b). In the Canadian view, 'applicable to all' meant that in practice, all Parties, particularly all major emitters, must take on meaningful mitigation commitments under the same agreement. This did not necessarily mean that all Parties would have the same commitments, taking into account different national circumstances. The new agreement must be underpinned by ambitious post-2020 mitigation commitments by all major emitters, consistent with the 2°C goal (Canada 2013).

Developing countries had mixed views on the interpretation of the notion, 'applicable to all Parties', which in their view is closely associated with the principle of 'common but differentiated responsibilities (CBDR) and respective capabilities' (the Convention, Article 3). The Independent Alliance of Latin America and the Caribbean (AILAC)⁹ applied a flexible interpretation to the principles of the Convention, and called for major emitting developing countries to make appropriate contributions (emission reductions and supports for other developing countries) (Öko Institut 2013).

⁹ AILAC: Chile, Colombia, Costa Rica, Guatemala, Panamá, Perú

BASIC (Brazil, South Africa, India, China) Plus Ministers recognised the need for commitments by all countries, and enhanced action on all the pillars of the Durban Platform (BASIC 2013).¹⁰ Emphasising on the importance of historical responsibility of developed countries and equity, however, BASIC countries and Like-Minded Developing Countries (LMDCs)¹¹ advocate the dichotomy embedded in the Kyoto Protocol structure (Öko Institut 2013). China, India and Brazil argued that the 2015 agreement must maintain the distinction of commitments in the Convention between Annex I and non-Annex I Parties in accordance with the principles of the Convention such as CBDR, reflecting historical responsibility and capability. China insisted that the applicability of the ADP outcome to all parties by no means suggests or implies uniformity of responsibilities and obligations for all parties (China 2013a). India stressed that Annex I Parties must continue to take QELROs, while non-Annex I Parties would take NAMAs enabled by finance and technology transfer (India 2013a). Brazil believed that in accordance with the Convention, all countries would have to demonstrate enhanced engagement (Brazil 2013a).

South Africa presumed that all Parties have the same legally-binding obligations, following agreed criteria to formulate their targets or commitments or actions (South Africa 2013a). Yet, in practice the distinction between developed and developing countries will remain in criteria, rules, or templates for international assessment to be agreed (see section 3.2). South Africa proposed two sets of criteria aligned with long-term trajectories to be applied to developed countries and developing countries respectively. Developed countries should set absolute economy-wide emission reduction commitments or targets¹², against a 1990 base year with flexibility for EITs. These commitments cover a period of multiple years, defining an emissions trajectory to 2030, with every year defined. Developing countries must strive to slow their emissions growth for the period 2020-2030, taking on relative emission reduction commitments and actions (South Africa 2013a).¹³

Outside the BASIC group, Korea argued that as long as the 2015 agreement is intended for universal application, it must give full consideration to the historical responsibilities and national circumstances, particularly those of developing countries. Korea believed that the principles would remain in effect beyond 2020 with a modern interpretation of these principles firmly based on the CBDR in order to increase the level of global ambition (Korea 2013).

3.2 The post-2020 mitigation framework

In the Pre-COP Ministerial meeting in October 2013, most Ministers noted that the sequence of rules and commitments should be further discussed and that nationally-determined mitigation actions would be the basis of the post-2020 pledges, while some stressed the importance of a top-down element (Poland 2013). The Pre-COP Ministerial meeting discussed the ambition of (mitigation) action in terms

¹⁰ In line with the "BASIC-plus" approach, Argentina, Fiji (Chair of the G-77 & China), Paraguay, Peru and Venezuela were also represented at the 16th BASIC Ministerial Meeting in Brazil in September 2013.

¹¹ LMDC: Bolivia, China, Cuba, Dominica, Ecuador, Egypt, El Salvador, India, Iran, Iraq, Malaysia, Mali, Nicaragua, Philippines, Saudi Arabia, Sri Lanka, Sudan, Venezuela as of 13 March 2013.

¹² Mitigation commitments for developed countries would take the form of QELROs or QEERTs (South Africa 2013a).

¹³ Mitigation commitments for developing countries might take the form of intensity targets (reducing carbon intensity of GDP) or NAMAs.

of 'ex-ante consultation' under the 2015 agreement and the scope of discussion on ambition. Regarding mitigation commitments, discussion centred on 'up front clarity' about the information and rules to be included, how to raise the level of ambition in nationally-determined commitments under international common rules, and the time schedule towards COP21 in 2015 (Japan 2013a). Clarification was still needed on how and when mitigation commitments will be incorporated into the 2015 package as well as the nature of the consultation phase (Poland 2013).¹⁴ This section primarily focuses on the sequence of rules and commitments regarding the post-2020 ambition, addressing the above issues in need of clarification.

3.2.1 National determination of mitigation commitments and international consultation

Main challenges to mitigation commitments lied in creating incentives for *wider* participation and *deeper* ambition in order to fill the emissions gap. An approach based on nationally-determined commitments and international consultation has gained broad support from most developed countries including the EU, the US, Japan and some non-Annex countries such as the AILAC and Singapore (Tamura 2013).

First, on incentives for *wider* participation, it was assumed that such a model would be most realistic to reflect diversity of national circumstances under the post-2012 framework that is applicable to all Parties, thereby increasing the chance of reaching an agreement. The US, one of the major advocates, called on all Parties to contribute to mitigation by defining their own mitigation commitments to allow for differentiation (Öko Institut 2013). The US emphasised the potential for such a model to provide Parties with incentives for participation: 'Parties are much more likely to participate in the agreement, and to implement their commitments, if they have designed their own commitments to be consistent with their circumstances and capabilities' (US 2013a). According to Japan, the key to establishing a framework "applicable to all Parties" was a flexible hybrid system in which each Party submits its nationally-determined commitment (emission reduction target and all possible measures) under internationally common accounting rules (Japan 2013b). In Australia's view, since a design that is sensitive to the genuine diversity between countries will encourage participation and promote equity, national schedules have significant potential as a model that can capture this diversity by accommodating a full spectrum in type and scale of effort (Australia 2013a). Among developing countries, Brazil believed that the extent to which each Party should contribute to global overall emissions reduction should be defined domestically, taking into account historical responsibilities, national circumstances and capacities (Brazil 2013a).

Second, on incentives for *deeper* ambition, it was assumed that an approach based on nationally-determined commitments can contain a mechanism for upward adjustment which could be triggered by Parties in domestic processes. The main challenge would be how to raise the level of ambition in national pledges beyond that of their initial offers. The US model relies on the adequacy of ambition in initial offers. The US argued that 'ambition and participation will be maximised if each Party can put forward a commitment it deems appropriate and fair for its circumstances and is in a position to implement' (US 2013a). Canada believed that to encourage greater and broader ambition continually,

¹⁴ Also see <http://climate-l.iisd.org/news/pre-cop-19-meeting-focuses-on-business-involvement-2015-agreement-loss-and-damage/218860/>

the 2015 agreement should provide countries with the flexibility to voluntarily modify and update their mitigation commitments, with a view to encouraging more aggressive action over time (Canada 2013). Other countries (e.g. the EU, South Africa) preferred to leave a space for upward adjustment in the consultation stage (Step 3) discussed below. The difference in approaches may reflect what the different countries expect from the outcome of international consultation in relation to essentially domestic processes for national determination (i.e. recognition in the US model versus scrutiny in the EU model).

The EU further looked into these issues as part of a 'step-wise approach' (Box 1).

Box 1. The EU proposal for a 'step-wise approach'

Step 1: Define the information to be presented up front, with proposed mitigation commitments, so they are easily understood. The information presented needs to ensure transparency, quantification, comparability, verifiability and ambition – the key criteria that proposed commitments must fulfil. The information requirements will depend of the type of commitment proposed;

Step 2: All Parties decide in Warsaw to propose commitments in 2014, in order to allow time for Step 3;

Step 3: A robust international assessment of individual and collective ambition of commitments in light of the below 2°C objective. This would involve comparison and an assessment of the ambition and fairness of proposed commitments, possibly against objective indicators; and

Step 4: Inscription of the commitments in the 2015 agreement.

Source: EU (2013b)

The main differences in Parties' positions are highlighted below step by step. Although not included in the EU's proposal, Step 5 on the ex-post review is added to the list for the logical sequence.

Up front information according to the agreed criteria (Step 1)

The first step was for Parties to nationally formulate initial pledges and present them with a minimum level of information required.

Developed countries argued that Parties should deepen discussions to agree on the scope of up front information or rules necessary for national determination of commitments and the future schedule (Japan 2013a). The US and the EU stressed the importance of up front clarity and ex-ante consultation. The US assumed that ex ante clarity and a public consultative period after submission of 'draft' contributions ('ex-ante consultation') would provide a significant incentive for Parties to put forward ambitious commitments. This ex-ante clarity (e.g. the scope, period, stringency of mitigation action) is important for Parties to understand the ambition embedded in the commitment (US 2013a). The US submission (2013a) included a notional indication of a possible format with indicators for

presentation of commitments. Similarly, the EU emphasised the importance of 'up front clarity' on the nature of proposed mitigation commitments. The Union argued that 'proposed mitigation commitments must be accompanied by a minimum level of up front information in order to ensure that they are transparent, quantifiable, comparable, (i.e. consistent with agreed accounting elements under the Convention), verifiable and ambitious' (Council of the EU 2013; see also EU 2013a, b). The EU regarded presentation of clear up front information with proposed mitigation commitments as a precondition to an effective assessment phase (Step 3).

There was no clear position on up front clarity taken collectively by major emitters among developing countries. According to South Africa, Parties should agree upfront that the criteria and rules for setting the targets/commitments/actions and the *ex-ante* process will be applied to domestic processes. The process of nationally determining commitments should take place according to a multilaterally agreed process, with two templates to be agreed at COP19. These templates, one for developed countries and another for developing countries indicate how to put forward their initial offers. Bringing initial offers in the agreed templates to COP20 would enable Parties to consider together targets/commitments/actions, rules and form, knowing what others are doing, and perceiving their relative efforts as fair (South Africa 2013a).

More specifically, Parties were expected to clarify what criteria/indicators would be used in determining the type and level of ambition of their proposed commitments (EU 2013b). The use of objective indicators would help Parties determine the ambition and fairness of proposed commitments. Examples of proposed criteria or indicators are summarised below (Box 2).

Box 2. Examples of proposed criteria or indicators

The EU: Relevant criteria/indicators could include those related to, inter alia:

- past/present/future emissions,
- projected GDP,
- projected population,
- development needs,
- mitigation potential and
- mitigation costs.

The US: the following list strikes the right balance, but not all of these items will apply to each Party's commitment:

- base year/period;
- gases and sectors covered;
- percentage of total national emissions covered;
- overall emissions reduction anticipated;
- any use/types of offsets and/or emissions trading; and
- any methodologies/assumptions relating to the commitment.

Brazil: historical responsibilities, national circumstances, capacities and science

South Africa: national circumstances, responsibility and capability, science and equity

Criteria include:

- emissions profiles/actions
- Quantified Emissions Limitation and Reduction Objectives (QELROs) or quantified economy-wide emission reduction targets (QEERTs)
- carbon intensity of GDP (for developing countries)
- underlying assumptions and methodologies, sectors and gases covered, Global Warming Potential values used, support needs for the implementation of NAMAs and estimated mitigation outcomes (for developing country NAMAs)

Source: EU (2013b), US (2013a), Brazil (2013a), and South Africa (2013)

In addition, Brazil proposed to invite the IPCC to develop a methodology which would enable Parties to quantify national historical contributions to climate change since 1850¹⁵, and to develop guidelines to allow Parties to provide simplified estimates of their historical emissions since 1850 (Brazil 2013a). On the criteria or indicators, other Parties do not express views as detailed as the above-mentioned Parties.

Time-frame for submission of pledges (Step 2)

The second step was to ensure timely submissions of initial pledges in order to deliver commitments as part of the overall agreement at COP21 in 2015.

The EU encouraged all Parties to start the domestic processes immediately preparing national mitigation commitments as soon as possible, in order to propose international commitments in 2014 (EU 2013a, b). Should Parties submit their preliminary pledges by the end of 2014, this would leave the whole year of 2015 for consultation in order to inscribe commitments in the 2015 agreement (Step 4).

However, most Parties found it too early (Öko Institut 2013). For example, the US believed that Parties should be able to submit draft commitments by early 2015, in time for a consultative process to start around the end of the 1st quarter in 2015, so that final commitments can be submitted in late 2015 (US 2013a). The country considered a period of about 9 months to be sufficient for 'ex-ante consultation'.

South Africa proposed even a longer time-frame in which Parties would submit initial pledges at COP21 in 2015 towards finalisation by 2017, prioritising agreement on the process and format. The country suggested the ADP to focus on reaching agreement on criteria and the templates by COP19 in 2013. Parties would develop nationally initial offers during 2014, and bring them to COP20 with a minimum level of information required in the agreed templates. After an ex-ante assessment, Parties should present targets/commitments/actions at COP21 in 2015 with a view to inscribing the targets by 2017 at the latest (South Africa 2013a).

Although adopting a longer time-frame for finalising commitments, the South African approach could increase predictability by scheduling commitments. The country called on all Parties to propose mitigation commitments for implementation periods of 5, 10 or 15 years: the targets/commitments/actions should be stronger/more ambitious for the period 2020 to 2025 than they were submitted for the period up to 2020, and then those for the periods to 2030 and to 2035 even stronger. In this model adjustments may be enabled by schedules setting long-term trajectories, with single numbers 5 years ahead, a narrow range of numbers 10 years ahead, and a wider, indicative range 15 years ahead (South Africa 2013a).

On the time-frame, other parties did not express views as detailed as the above-mentioned Parties.

¹⁵ The methodology to be developed by the IPCC should be based on Parties' individual cumulative greenhouse gas emissions since 1850, cover all Kyoto gases and all sectors, and should take into account the double accumulation process, both with respect to emissions and concentration of greenhouse gases in the atmosphere. Based on the guidelines, Parties could estimate their individual historical emissions for all Kyoto gases and all sectors (Brazil 2013a).

Comparison and assessment of mitigation commitments (Step 3)

The third step was an ex-ante assessment process to assess the adequacy and fairness of initial offers in targets/commitments/actions domestically determined by Parties.

Developed countries argued that the assessment process should proceed in a way to facilitate common understanding about nationally-determined commitments and that Parties should continue discussions on how to raise the level of ambition in this process (Japan 2013a).

The EU suggested that the 2015 agreement would need to include a process for regular assessment and, if necessary, upward adjustment (step up of ambition) of individual and collective mitigation commitments, guided by considerations of evolving capability and responsibility (Council of the EU 2013).¹⁶ It was presumed that the assessment phase would need to be transparent, robust, simple, flexible, consistent across Parties and science-based (EU 2013b). The Union believed that such assessment should use the information on which Parties have based their mitigation commitments (Step 1), including balanced and objective indicators (Box 2).

Japan believed that 'ex-ante consultation' as well as international assessment and review of commitments would ensure ambitious commitments and effectiveness in their implementation (Japan 2013a). The country suggested that ex-ante consultation can be implemented in the following way, for example (Japan 2013b):

- Each Party submitted its initial commitment to the Secretariat several months before an official submission. This would be open to the public on the UNFCCC website.
- Interested actors such as Parties, international organizations, the private sector and NGOs make submissions in the form of questions or opinions to presented commitments on the UNFCCC website.
- Each Party examined its initial commitment, taking account of questions and opinions by others, and then decided its official commitment to submit to the Secretariat.

Consultation in the US view would mean simply involving governments in exchanging proposals and responses bilaterally (Diringer 2013). In this model international consultation does not necessarily lead to re-submission of draft commitments with upward adjustment to the level of ambition.

There is no clear position on up front clarity taken collectively by developing countries. South Africa suggested that informed by the 2013-15 Review¹⁷, an *ex-ante* multi-lateral assessment process would precede COP21 with a view to inscribing the targets by 2017 at the latest. The results of the assessment process should be recommendations to Parties to adjust their numbers and increase their contributions at COP21. Although these steps for assessment focus on mitigation commitments, they must also be assessed in relation to adaptation and support. In practice this assessment process will involve reviewing the initial offers of targets/commitments/actions in accordance with multilaterally-agreed and legally-binding criteria in agreed templates and subject to agreed rules, in particular against the requirements of science and equity, e.g. using an equity reference framework (ERF) (South

¹⁶ Also see some elaboration on the evolutionary concept, '[The EU] STRESSES that responsibilities and capabilities are differentiated but evolve over time and that the agreement should reflect those evolving realities by including a spectrum of commitments in a dynamic way' (Council of the EU 2013).

¹⁷ In Doha Parties launched a process to review the long-term temperature goal in 2013-2015, followed by discussion in Bonn in 2013 on information gathering and compilation as the first step (Öko Institut 2013).

Africa 2013a).

On the comparison and assessment process, other parties did not express views as detailed as the above-mentioned Parties.

Inscription of commitments into the 2015 agreement (Step 4)

Parties did not express detailed views on how commitments can be inscribed into the 2015 agreement.

Review and compliance (Step 5)

The final step was ex-post review and compliance closely associated with the MRV system, the topic of the next section, 3.2.2.

Several Parties pointed out the need for the 2015 agreement to include provisions to enable a regular review. The US proposed a regular review beyond 2020 to check Parties' progress towards the commitments in which the same rules shall apply to major emitters among developing countries and developed countries (US 2013a).

Japan believed that effective and efficient ex-post international evaluation and review of each Party's performance should be established based on experiences of and lessons from the existing MRV process introduced under the Cancun Agreements (to be discussed in the next section), with a view to facilitating each Party's fulfilment of its commitment. Japan suggests that the review process can be implemented in the following way, for example (Japan 2013b):

- Each Party submits a regular report, which can be made open to the public on the UNFCCC website.
- Interested actors such as Parties, international organizations, the private sector and NGOs can send questions or opinions on the performance and other information included in the above report.
- Review sessions discuss performance and efforts of each Party in line with its commitment and its potential for emission reduction. Frequency and depth of the ex-post international evaluation and review (e.g. at SBSTA/SBI) should be effective and equitable, taking into consideration the impacts of GHG emissions of each Party on global warming.
- On the occasion of revising commitments for the next phase, each Party is subject to an ex-ante consultation, taking into account the results of the previous international evaluation and review.

The EU further suggested possibility for an increase in the level of ambition of Parties' commitments through the regular review (EU 2013b). South Africa proposed a periodic review of the implementation of individual commitments and the adequacy of aggregate efforts, based on science and equity. The periodic review under the Convention should enable dynamic adjustments of commitments. Future reviews would then specify individual numbers within the ranges and set new longer-term ranges (South Africa 2013a).

Other Parties stressed the importance of the compliance system as part of the 2015 agreement and

in relation to nationally-determined commitments. Indonesia believed that the scope, structure and design of the 2015 agreement shall ensure a strong pull of compliance to all Parties (Indonesia 2013). India argued that the compliance system must build on the existing Kyoto compliance system and contain a differentiated structure for Annex I and non-Annex I Parties: the former are subject to compliance and consequences for the breach of their obligations; and the latter are encouraged to remain in compliance through a set of incentives. In the Indian view, a key incentive will be a prohibition on use of unilateral actions by a country against another in the name of climate change (India 2013a). The US, however, strongly opposed an international compliance system with consequences (Öko Institut 2013). South Africa noted that compliance would be linked to countries applying the agreed criteria and rules and following the process in formulating their domestically-determined targets/commitments/actions. The country suggested that lack of achievement of a number in the pledge would not lead to punitive compliance measures, but would inform the process of putting forward further targets/commitments/actions (South Africa 2013a).

On the ex-post review and compliance, other parties did not express views as detailed as the above-mentioned Parties.

3.2.2 MRV and accounting

National determination of mitigation commitments requires not only international consultation and review to check their adequacy and fairness in the level of ambition, but also measurement, reporting and verification (MRV) to ensure transparency and accountability in Parties' implementation of these commitments.

The EU emphasised the need for a multilaterally-agreed common robust monitoring, reporting and verification framework and accounting rules to ensure environmental integrity, avoid double-counting and enhance transparency, comparability of efforts and effective implementation. It believed that this system should build on the provisions of and experience with the current MRV system, noting that international assessment and review (IAR) (for developed countries) and international consultation and analysis (ICA) (for developing countries) would go into their first rounds in 2014 and 2015 and would be subject to a review respectively in 2016 and 2017. The EU believed that the common MRV framework and accounting rules should eventually develop into a common, coherent international MRV system for all Parties, and that Parties should set the basic principles of that framework, specific to different types of commitment, in the 2015 agreement (Council of the EU 2013).

The US believed that an accounting system should generate understanding of Parties' commitments, prevent double-counting of international units, and provide assurances that countries are doing what they said they would. This accounting system should be flexible enough to be applied to all Parties. For the post-2020 period, the US supported a single transparency system with built-in flexibility to enable all Parties to participate according to their capabilities (US 2013a). Japan believed that submission of a mitigation commitment including an emission reduction target and all possible measures, basic accounting rules, and basic rules on transparency mechanisms, should constitute a core new legal agreement applicable to all Parties (Japan 2013b). Canada viewed that a robust MRV system is critical to ensure transparency and accountability in the new agreement (Canada 2013).

India argued that work under the transparency of action pillar must extend to the Durban Agreements, in particular by further substantiating MRV requirements. In the Indian view, it is important to have

common accounting rules for MRV of developed country mitigation targets. The country believed that MRV of the flow of finance should also be an important part of the IAR (India 2013a).

South Africa suggested that the MRV process would involve regular reporting of progress in implementation of commitments including IAR and ICA during the agreed period. The country believed that the Kyoto accounting rules, together with the clarification of these rules for pre-2020 pledges, should provide the basis for a common accounting framework for developed countries' commitments¹⁸ to enter into effect from 2020. Over time, developing countries should be able to phase in similar accounting rules to those for developed countries. In many cases, developing countries already voluntarily apply stronger rules than required (e.g. 2006 IPCC guidelines for inventories instead of the 1996 guidelines prescribed) (South Africa 2013a).

On MRV and accounting, other parties did not express views as detailed as the above-mentioned Parties.

3.3 Pre-2020 pledges/ambition

In the Pre-COP Ministerial Meeting in October 2013, Ministers broadly shared a view that ambition of climate action is not only related to mitigation but also to adaptation and means of implementation. They highlighted the need for encouraging universal participation in pre-2020 and post-2020 climate action, recognising the link between the ambition of post-2020 action and the 2015 agreement. They agreed that the consultative phase aims at enhancing transparency and understanding of the proposed pledges. Ministers reiterated the need to identify barriers related to ambitious universal participation in the new agreement (Poland 2013).¹⁹

For the period up to 2020, the emissions gap will remain a major concern shared among Parties and therefore on the agenda mainly under the ADP Workstream 2 but also, for technical assessment, under the SBSTA (e.g. Work Programme on clarification of developed country quantified economy-wide emission targets). Acknowledging the urgent need to close the pre-2020 mitigation gap in order to stay below 2°C, the EU stressed that enhancing the global pre-2020 mitigation ambition would contribute to an ambitious 2015 international agreement (Council of the EU 2013).

The Doha decision aimed at selecting and exploring in 2013 options for a range of actions that can close the pre- 2020 ambition gap with a view to identifying further activities for the ADP in 2014 to ensure the highest possible mitigation efforts (ADP 2013). Parties already identified a number of options to bridge the gap such as raising the level of ambition in national targets, implementing measures in areas with untapped but high mitigation potentials, and enhancing measures already set in place (Öko Institut 2013). This section concentrates on the scope of the existing pre-2020

¹⁸ South Africa argued that common accounting rules for developed countries must comprise (South Africa 2013a):

- base year, GWP values, sectors and gases;
- treatment of LULUCF and carbon credits;
- associated assumptions and conditions related to the ambition of the pledges and demonstrating progress towards QELROs/ QEERTs.

¹⁹ See also, <http://climate-l.iisd.org/news/pre-cop-19-meeting-focuses-on-business-involvement-2015-agreement-loss-and-damage/218860/>

frameworks and the sequence of rules and commitments without looking into individual options for enhanced mitigation.

3.3.1 Scope of the pre-2020 framework under the Convention

ADP Workstream 1 aims at enhancing existing pledges and encouraging new pledges for the period up to 2020 under the Convention.

Based on the findings of the IPCC 4AR and recent updates, the EU reiterated that developed countries as a group should reduce their GHG emissions by 25- 40% below 1990 levels by 2020, while developing countries as a group should achieve a substantial deviation below the currently predicted emissions growth rate, in the order of 15- 30% by 2020. The Union reaffirmed its conditional²⁰ offer to move to a 30% reduction from the current 20% reduction by 2020 compared to 1990 as part of a global and comprehensive agreement for the period beyond 2012 (Council of the EU 2013). The EU strongly encouraged Parties, which had not yet done so, to come forward with their mitigation pledges by COP19 in Warsaw. The Union called on all Parties to implement fully and without delay their mitigation commitments and actions put forward so far (Council of the EU 2013). It called on Parties to increase ambition of existing pledges and to consider any other actions that could be taken in areas of high mitigation potential (EU 2013c).

The US also believed that Parties, who had not yet submitted pledges, should be encouraged to come forward with pledges so that they can get due acknowledgment for their actions already in place (US 2013b). Australia called on all Parties to make a pledge²¹, to look again at how deeply their pledges cut emissions, and consider doing more. Parties with pledges, including those with conditional targets and target ranges, should consider whether they could commit to more ambitious emissions reductions or limitations. A broader effort by all UNFCCC countries will be required to raise pre-2020 mitigation ambition (Australia 2013b).

Developing countries advocate that developed countries should take a lead in raising the ambition of commitments based on historical responsibility. The former regarded the year of 2014 as crucial in raising the ambition of the latter in mitigation commitments up to 2020. BASIC countries and LMDCs argue that any process to increase the level of ambition should only apply to developed countries (Öko Institut 2013). BASIC reiterated their concern with the inadequacy of developed countries' current commitments on not only emission reductions but also provision of financial and technological support (BASIC 2013).

China and India stressed that developing country parties are doing more in mitigation efforts than developed country parties in the pre-2020 period, in terms of voluntary pledges for emissions reductions, i.e. NAMAs (China 2013a; India 2013b). They suggested that developed countries should raise at least their ambition to the level indicated by the IPCC 4AR, i.e. a 25-40% reduction below 1990 levels by 2020. In the Chinese view, since developing countries shall implement those mitigation commitments and targets mainly through domestic actions (NAMAs), developed countries shall

²⁰ The conditions are that other developed countries commit themselves to comparable emission reductions and that more advanced developing countries contribute adequately according to their responsibilities and respective capabilities.

²¹ Many countries, including 20 of the world's top 50 emitters, were yet to make a pledge (Australia 2013b).

similarly increase their mitigation ambition mainly through their domestic efforts (China 2013). China and India suggested that those developed countries, not participating in the CP2 of the Protocol, shall undertake comparable mitigation commitments under the Convention and must equally raise their mitigation ambition by 2014 (China 2013a; India 2013b). India further stressed the importance of the developed country parties meeting their commitments under the Convention in the pre-2020 period in order to bridge the ambition gap (India 2013b).

On the pre-2020 framework under the Convention, other parties did not express views as detailed as the above-mentioned Parties.

3.3.2 Scope of the pre-2020 framework under the Kyoto Protocol

The other framework to enhance current pledges and encourage new pledges can be found under the Kyoto Protocol. This framework assigns targets to only Annex I countries.

Under the Kyoto Protocol, Parties were due to re-consider raising the ambition of commitments for the second commitment period (CP2, 2013-20) by 2014. Therefore, developing countries insisted that developed countries should urgently ratify the Doha Amendment to the Kyoto Protocol on commitments for the CP2, raise the level of ambition for emission reductions, and make other comparable efforts in order to achieve emission reductions required for the 2°C goal (Japan 2013a). Australia also suggested that a process involving only CP2 Parties would not be meaningful (Australia 2013b).²²

BASIC countries called for the expeditious ratification of the Doha Amendment, and emphasised the importance of revisiting and then increasing ambition of QELROs in 2014 and raising the ambition of the comparable pledges in the same timeframe by Annex I Parties not participating in the CP2 of the Kyoto Protocol. BASIC countries, including China and India, stressed that the pre-2020 ambition gap shall be primarily addressed through the implementation of the QELROs CP2 and the outcome of the Bali Action Plan (BASIC 2013; China 2013a; India 2013b). China and India suggested that those developed countries, taking up QELROs CP2 under the Kyoto Protocol, shall revisit and raise their mitigation ambition by 2014 at the latest (China 2013a; India 2013b).

South Africa viewed that there would be no need to amend (and therefore ratify the amendments to) the Protocol for further periods of implementation beyond e.g. 2025, 2030 or 2035 (Öko Institut 2013).

On the pre-2020 framework under the Kyoto Protocol, other parties did not express views as detailed as the above-mentioned Parties.

3.3.3 Pre-2020 pledges

To achieve progress on pre-2020 pledges under Workstream 2, some Parties proposed the following steps for consideration by the ADP (UNFCCC 2013c):

²² Those with commitments under the Kyoto Protocol second commitment period (CP2) account for less than 14 % of global emissions today (Australia 2013b).

- (a) Clarification of pledges
- (b) Recognition of efforts
- (c) Transparency
- (d) Assessment

The above steps for determining pre-2020 pledges look similar to those identified in the previous section to determine post-2020 commitments. This section does not cover other issues in Workstream 2 such as examination of individual mitigation potential options that are equally important but too detailed for the purpose of this report.

Clarification and review of pledges

Clarification of pledges has been addressed at two levels under the Convention: on the rules and commitments at ADP Workstream 2; and on the technical assessment at the SBSTA Work Programme on clarification of quantified economy-wide emission reduction targets (QEERTs) of developed countries.

In ADP Workstream 2, several Parties expressed views on clarification of pre-2020 pledges. The EU called on all Parties to consider in 2014 how they could enhance their mitigation efforts with a view to closing the ambition gap as soon as possible (Council of the EU 2013). It believed that in 2014 all parties should be prepared to review their mitigation ambition and to discuss options to increase their mitigation effort in line with the below 2°C objective (EU 2013c). In this context, the EU stressed the importance of clarifying existing pledges of both developed and developing countries, supporting the continuation of the process to further clarify mitigation pledges in the SBSTA (Council of the EU 2013). The US similarly believed that Parties, who have not clarified their pledges and the ambition embedded, should do so as soon as possible (US 2013b). The country suggested that Parties' biennial reports (IAR and ICA) can be used as a means of reviewing actions to enhance ambition in the pre-2020 time frame.²³ India believed that Annex I Parties should clarify that their commitments/targets in the time frame of 2012-2020 are not subject to any conditions, and that Parties should launch a review of the adequacy of the mitigation commitments in 2012-20 during this time frame (India 2013b).

In the SBSTA Work Programme, Parties also submitted views on clarification of quantified economy-wide emission reduction targets (QEERTs) of developed countries at technical levels. These submissions addressed how to identify common elements for measuring progress towards the achievement of QEERTs and how efforts can be made comparable. The EU believed that identifying common elements is at the core of the work programme, and calls on all Parties to submit pledges and provide all information necessary to clarify the pledges. The Union suggested that the outcomes of the clarification exercise and the first biennial reports (IAR and ICA) should be used to learn about the quality and usefulness of this information (EU 2013d). The US and Australia believed that requirement for clarification of targets should apply to both developed and developing countries (Öko Institut 2013). More specifically, the US believed that the clarification process for developed countries should be based on the submissions by Parties clarifying their national approaches to reporting

²³ Developed country Parties should provide their biennial reports in a timely manner, on January 1, 2014. Developing country Parties should provide their biennial update reports by December 31, 2014.

progress towards UNFCCC mitigation pledges; and the clarification process for developing countries should be based on the submissions by Parties clarifying their NAMAs (US 2013c).²⁴

China and Saudi Arabia asked for further clarification about detail of developed countries' commitments, calling them to raise the level of ambition in GHG emission reductions (Öko Institut 2013). China further suggested the need for further clarification and discussion on the following issues: how developed countries implement the Decisions 1/CP.16, 2/CP.17 and 1/CP.18²⁵ with the current pledges; the planned trajectory of developed countries to achieve the emission reduction targets; the shares of domestic action and carbon offsetting in efforts towards the target; contributions of sectors or industry to the economy-wide targets; comparability in methodologies for GHG inventory and the accounting rules for LULUCF sector; the effectiveness of the domestic compliance system in case of non-compliance; and any remedy for non-compliance of a developed country with the target (China 2013b).

On clarification and review, other parties did not express views as detailed as the above-mentioned Parties.

International reporting and accounting

The EU, Norway and developing countries argued for a common international accounting framework for mitigation action (Öko Institut 2013). According to the EU, common accounting rules should be the backbone of the 2015 agreement, and the 2020 clarification of pledges process enables Parties to understand the building blocks of this future accounting system by exploring the methodological aspects of measuring progress towards the achievement of targets. (EU 2013d). Developing countries also called for robust accounting rules (Öko Institut 2013).

On the other hand, the US, the Environmental Integrity Group (EIG), Australia and New Zealand favoured a flexible system (Öko Institut 2013). The US believed that Parties should develop a system to prevent the double-counting of emission reductions among countries that are using offsets to meet part of their international mitigation commitments pre-2020. The US suggested that completing the technical guidance for the Cancun MRV system could contribute to enhancing the implementation of mitigation actions, consequently enhancing the ambition (US 2013b). Australia urged all Parties to participate fully and constructively in MRV processes including submissions of biennial reports: developed countries should submit their initial biennial IAR reports by 1 January 2014, and developing countries should submit their initial biennial ICA reports by 31 December 2014 respectively (Australia 2013b).

Brazil believed that the quantified emission reduction results arising from early-action should be accounted for the fulfilment of its post-2020 commitments under the new instrument. More specifically, the country proposes that the following categories of actions should be accounted for the achievement of commitments under the 2015 agreement, provided that they have delivered concrete additional emission reduction results before 2020 (Brazil 2013b, also see UNFCCC 2013c):

²⁴ Information may be needed on underlying assumptions and methodologies of mitigation pledges, including sectors and gases covered, GWP values, and estimated mitigation outcomes (US 2013c).

²⁵ The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention; Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention; and Agreed outcome pursuant to the Bali Action Plan.

- voluntary nationally appropriate mitigation actions (NAMAs) communicated to the UNFCCC by non-Annex I Parties,
- actions that are supplementary to communicated quantified economy-wide emission reduction targets (QEERTs) by Annex I Parties,
- the increase of ambition of quantified emission limitation or reduction objectives (QELROs) under the second commitment period (CP2) of the Kyoto Protocol
- Cancellation of assigned amount units (AAUs) resulting from the actual decrease of QELROs CP2
- Voluntary cancellation of other Kyoto Protocol units including certified emission reductions (CERs) and emission reduction units (ERUs)

Brazil suggested that assurance that early supplementary emission reduction results would be carried-over to the post-2020 period under the 2015 agreement for domestic use would greatly promote pre-2020 ambition (Brazil 2013b). This proposal has two important elements: one is banking from pre-2020 to post-2020; another is the risk of double-counting across the listed categories of actions that could be accounted for the achievement of commitments.

On reporting and accounting, other parties did not express views as detailed as the above-mentioned Parties.

4 Expected outcomes from COP19 in Warsaw

In the Pre-COP Ministerial meeting in October 2013, Ministers stressed the need for a decision in COP19 on a timeline or roadmap for negotiations up to COP21 in 2015. This decision was expected to send the right signals encouraging Parties to launch domestic preparations of initial pledges for post-2020 mitigation action. In their view, efforts by Parties towards forging their commitments must be visible and concrete by 2015. Given an extremely short time-frame, ministers emphasised that COP19 must mark a shift towards a focused mode of work under the ADP in order to advance the task of preparing the draft negotiation text of the 2015 agreement in time.²⁶ They noted that the draft negotiating text must be distributed to all Parties by the end of May 2015 (Poland 2013).

The ADP was expected to consider elements of a negotiating text no later than COP20 in 2014, and make a draft negotiating text available before May 2015 (ADP 2013, see also IISD 2013). Noting COP19 in Warsaw as a halfway in the lifetime of the ADP, the Co-Chairs stressed the importance of starting clarification about preparatory work by Parties to start their domestic processes, including clarity on national contributions (ADP 2013).

This section briefly summarises what the EU expected from the outcome of COP19 on the three major issues. Only the EU position was addressed here due to limited availability of background information at the highest level.

²⁶ This builds on the Co-Chair's summary of general agreement among Parties: the ADP has laid the foundations that will allow it to move from developing an understanding of concepts ('conceptual and scoping discussions') to defining the content of the 2015 agreement and achieving results on pre-2020 ambition ('the content-forming phase') (ADP 2013).

4.1 2015 agreement

The EU called on COP19 to take stock and plan the remaining work in 2014 with a view to considering elements for a draft negotiating text at COP20 at the end of 2014 in order to distribute the text well before May 2015. In their view, Parties should agree at COP19 on a process for all Parties to formulate ambitious mitigation commitments for the 2015 agreement including (Council of the EU 2013):

- A timetable to prepare their proposed commitments in 2014
- The provision of the necessary up front information
- A process to assess proposed commitments before the conclusion of the 2015 agreement

The EU believed that the outcome of COP19 should guide Parties in developing a text with elements of the 2015 agreement by COP20 as a basis for producing a negotiating text before May 2015 at the latest (EU 2013a).

4.2 The post-2012 mitigation framework

The EU expected a balanced package of decisions in Warsaw as a result of advancing work under the ADP by closing as quickly as possible the gap in the pre-2020 level of mitigation ambition and by preparing the ground for adopting by 2015 at the latest an ambitious single global legally-binding agreement applicable to all (Council of the EU 2013). Points of discussion included (EU 2013b):

- expectations about the ambition of proposed mitigation commitments and explore to what extent these are shared;
- designing how such an assessment phase would work in practice, e.g. whether the assessment could be informed by an independent analysis of the environmental effectiveness and adequacy of the proposed commitments;
- the minimum information that will need to be presented with proposed mitigation commitments

The list of expected outcomes from COP19 in Warsaw was the following (EU 2013b):

- Ministerial discussions related to the work of ADP Workstream 1, including on the stepwise approach;
- A Decision:
 - setting out the process for Parties coming forward with proposed mitigation commitments and inscribing them in the 2015 agreement;
 - committing all Parties to propose mitigation commitments in 2014;
 - setting out the requirements for up front information that must accompany proposed mitigation commitments and ensure they adhere to the criteria of transparency, quantification, comparability, verifiability and ambition;
- A clearer understanding of how an international assessment of proposed mitigation commitments will be organised;
- Progress towards defining the elements of an accounting framework that are to be set out in the 2015 agreement.

4.3 Pre-2020 pledges/ambition

The EU expected an outcome from COP19 that would result in real action to close the pre-2020 mitigation ambition gap. The Union stressed the need to move to the next stage in work and consider what specific actions could be taken. Thus expected outcomes included an agreement on a process for all Parties to consider and present options for enhancing their mitigation effort in 2014. The EU had to ensure that progress is made on implementation and clarification of existing pledges, and continue to build pre-2020 accounting rules to avoid double-counting, and ensure environmental integrity in the system (EU 2013c). A decision in COP19 in Warsaw should also include outcomes of technical work on clustering key features of a common framework (e.g. metrics, gases and sectors, banking, use of market mechanisms, estimated emission reduction) to recommend further action to the COP on lessons learnt, including how it should be used for the review of biennial reports and during the IAR process (EU 2013d).

5 Outcomes of COP19

The COP19 confirmed that the COP21, where the new agreement is to be adopted, would take place in Paris from 30 November to 11 December. Hosting the crucial COP in another European capital could help EU policymakers and stakeholders raise the priority of climate agenda and increase public awareness in the next two years.

The conference adopted a decision on 'Further advancing the Durban Platform'. Key elements of the decision are the following:

On the 2015 agreement,

- To request the ADP to further elaborate, at its first session in 2014, elements for a draft negotiating text, taking into consideration its work including, inter alia, on mitigation, adaptation, finance, technology development and transfer, capacity-building and transparency of action and support (Decision/CP.19, 2(a));

On the post-2020 framework,

- To invite all Parties to initiate or intensify domestic preparations for their *intended nationally determined contributions*, without prejudice to the legal nature of the contributions, in the context of adopting a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties and to communicate them *well in advance of the COP 21 (by the 1st quarter of 2015* by those Parties ready to do so) in a manner that *facilitates the clarity, transparency and understanding of the intended contributions*, without prejudice to the legal nature of the contributions (Decision/CP.19, 2(b))²⁷;
- To request the ADP to identify by the COP20 the information that Parties will provide when putting forward their contributions, without prejudice to the legal nature of the contributions (Decision/CP.19, 2(c));

²⁷ Emphasis added by the author.

On the pre-2020 ambition,

- Intensifying, as from 2014, the technical examination of opportunities for actions with high mitigation potential, including those with adaptation and sustainable development co-benefits, with a focus on the implementation of policies, practices and technologies that are substantial, scalable and replicable, with a view to promoting voluntary cooperation on concrete actions in relation to identified mitigation opportunities in accordance with nationally defined development priorities (Decision/CP.19, 5(a));
- Facilitating the sharing among Parties of experiences and best practices of cities and subnational authorities, where appropriate, in identifying and implementing opportunities to mitigate GHG emissions and adapt to the adverse impacts of climate change, with a view to promoting the exchange of information and voluntary cooperation (Decision/CP.19, 5(b));
- Inviting Parties to promote the voluntary cancellation of CERs, without double counting, as a means of closing the pre-2020 ambition gap (Decision/CP.19, 5(c));

Among others, it is important to highlight the notion of 'intended nationally determined contributions' as well as the timing and manner of communicating the contributions in relation to the post-2020 framework. At least this was a progress in which Parties agreed on the approach with short-term milestones. Parties agreed in the last stage when developed countries and some developing countries, particularly LMDCs settled on the notion of 'contributions' as distinct from 'commitments' (cf. QELROs, QEERTs) or 'actions' (cf. NAMAs) (ENB 2013). While 'up front clarity' of commitments (now 'contributions') entered into the Decision text, ex-ante assessment did not. The agreement on scheduling in COP20 a discussion on the type of information to explain was a step forward. This left enough time for Parties to come forward with the intended contributions by March 2015 and with final submissions in COP21. Despite all these positive results, however, the divide over the overarching question, how to reflect the CBDR on the new agreement 'applicable to all', remained a major challenge (ENB 2013).

The EU was satisfied with the decision setting out the above time-frame for Parties to prepare and table their intended contributions post-2020 along the lines of the step-wise approach they proposed. The Union also welcomed the decision finding ways to enhance mitigation action in the pre-2020 period.²⁸

6 SUMMARY

The challenge of narrowing the emissions gap in 2013-20 and in long-term trajectories rests on success in COP19, especially in the ADP with two Workstreams and the SBSTA Work Programme. On the 2015 agreement, all Parties accept the notion of mitigation commitments being 'applicable to all', but they disagree on exactly what this means in practice. Developed countries view it as a departure from the dichotomy embedded in the Kyoto Protocol structure. Major emitters among emerging economies (BASIC) see it without a rupture from the Protocol. This overshadows the pre-2020 debate. Major emitters among emerging economies insist that for this period developed countries have not made adequate commitments which should be primarily met through domestic actions. Increasing the

²⁸ EU press release, 'EU welcomes progress on international climate action at Warsaw conference', Warsaw, 23 November 2013.

pre-2020 ambition is largely a matter of developed countries either through the ratification of the amendments to the Kyoto Protocol or alternatively through comparable efforts by those who do not ratify it. They also stress that their post-2020 ambition depends on developed countries' contributions to pre-2020 pledges and their implementation.

While developed countries (including the EU and the US) and BASIC (primarily China and India) remain in head log, it is interesting to see middle-positions taken by new players such as the AILAC and through concrete and structured proposals from Brazil and South Africa. A couple of key issues at stake in Warsaw centre on the 'up front clarity' about the scope and content of country information as the basis for setting post-2020 mitigation commitments, the time-frame for bringing initial offers in post-2020 commitments, which is linked with the nature of ex-ante consultation, and further clarification about pre-2020 mitigation commitments. Mitigation commitments need to be discussed in close links with means of implementation as well as MRV and accounting rules. Essentially domestic processes of determining and updating mitigation commitments may require enhanced international oversight on MRV and accounting.

PART II: STATUS QUO AT COP21 AND AFTER

7 OUTCOMES OF COP21

At the COP21 in Paris in December 2015, 196 delegations (195 states and the EU) successfully adopted a legally-binding global climate change agreement. In doing so, they fulfilled the mission of the Ad-hoc Group on the Durban Platform and closed the four-year UNFCCC negotiation process. The French Presidency, hosting the COP21, was widely praised for driving the process, keeping all the parties on board while addressing disproportional impacts of adverse effects particularly on small island developing states (SIDS) and least developed countries (LDCs), and recognising the roles of non-state actors in mitigation and adaptation actions.²⁹ Across countries from all the world regions and despite differences in viewpoints, seasoned negotiators and observers agreed that the final deal was better than what they anticipated. The so-called 'High Ambition Coalition', a group of more than 100 countries led by the EU with a common interest in a list of ambitious tasks such as 'a clear long-term goal' and 'five-year review cycles', played a crucial role: announcement of large countries such as the US and Brazil to join the coalition created a momentum at the final stage. Bearing in mind this positive impression about the outcomes, this chapter gives an overview of the Paris Agreement and COP21 Decision, then focus on the post-2020 mitigation framework and pre-2020 pledges respectively.³⁰

7.1 'PARIS FRAMEWORK': PARIS AGREEMENT AND COP DECISION

The Paris Agreement can be regarded as the first legally-binding global climate change agreement applicable to all parties for their shares of contributions to long-term ambition. The 'Paris framework' encompasses not only the Agreement itself but also adopted and future Decisions.

7.1.1 Nature of the Agreement and Decision: legally-binding or not

The legally-binding Paris Agreement is in fact annexed to the Decision CP.21 to implement the agreement. The Decision itself is not legally-binding. This results in:

- Legally-binding: long-term goals; communicating NDCs (national mitigation targets post-2020); monitoring and national reporting; a transparency framework; procedural aspects of the Paris Agreement
- Not legally-binding: the content, specific goals, and level of NDCs;

The Decision aims at operationalising the principles and specific provisions embodied in the Agreement. In addition, modalities and procedures for mechanisms established by the Agreement and

²⁹ See cooperative climate action registered in the Non-State Actor Zone for Climate Action (NAZCA) led by the Lima-Paris Action Agenda (LPAA) initiative. Both were launched to build a momentum in support of reaching a universal climate change agreement at COP21. <http://climateaction.unfccc.int>

³⁰ Emphasis in italic is added by the author to the quotation from or summary of the Agreement or Decision provisions.

operationalised by the Decision will be further elaborated in the next conference, COP 22 scheduled in Marrakech in November 2016. For this purpose, the Decision CP.21 established the Ad Hoc Working Group on the Paris Agreement to complete its work by the first COP serving as the meeting of the Parties to the Paris Agreement (i.e. the first COP after the Paris Agreement enters into force).

The combination of binding and non-binding documents under the 'Paris framework' would facilitate the process leading to the entry into force of the Agreement. The Paris Agreement will enter into force on the 30th day after adoption (ratification, acceptance, approval or accession) by at least 55 Parties representing at least 55% of total global greenhouse gas emissions based on the amount updated before or at the time of the adoption (PA Art 21.1 & 2).

Ultimately the distinction between binding and non-binding would matter most to consequences of Parties' non-compliance with commitments or pledges. Similar to the Kyoto Protocol, the Paris Agreement is 'non-adversarial and non-punitive but facilitative in nature and function'. The Agreement establishes a mechanism to facilitate parties' implementation of and their compliance with specific provisions such as mitigation, adaptation, and means of implementation (PA Art 15.1-3, also see CP.21, Art 102-103).

7.1.2 Coverage of the Agreement and Decision: comprehensiveness

The Paris Agreement sets three long-term objectives that complement each other (PA Art 2).

- a) ambition with risk reduction: '*holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels*';
- b) adaptation with food security: '*increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development*';
- c) finance: '*making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development*'.

To meet these objectives, the agreement has a comprehensive coverage of actions. Four building blocks of the agreement are the following:

- i) mitigation (emission reductions and removals by sinks, PA Art 4, 6 for emissions and 5 for removals respectively),
- ii) adaptation and loss and damage (PA Art 7, 8 respectively),
- iii) means of implementation (finance, technology, capacity-building) (PA Art 9, 10, 11 respectively) and
- iv) process (accountability and transparency (PA Art 13), stocktaking (PA Art 14), compliance (PA Art 15)).

The two building blocks, i) in relation to iv) are further discussed in section 7.2.2. Key points on progress in the other building blocks, ii) and iii) are summarised below.

Adaptation

The Paris Agreement sets the adaptation goal of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change (PA Art 7.1). Many developing countries expressed needs for adaptation in INDCs (PA Art 7.4; CP.21, 18). Therefore, parties '*should* strengthen cooperation on enhanced adaptation action, taking into account the Cancun adaptation framework' (PA Art 7.7). Each party '*should* submit and periodically update an adaptation communication' including its priorities, implementation and support needs, plans and actions (PA Art 7.10), which will inform *global stocktake* (PA Art 7.14). The concept of stocktake is introduced in section 7.2.2.

Loss and damage

The Paris Agreement includes a stand-alone article independent from Art 7 on adaptation, aiming at '*averting, minimising and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events*' (PA Art 8.1). The Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts is to be implemented under the Agreement (PA Art 8.2). Through the mechanism or other means, Parties '*should enhance understanding, action and support on a cooperative and facilitative basis*' (PA Art 8.3). Parties agree that this article in the Agreement '*does not involve or provide a basis for any liability or compensation*' (CP.21, 51).

Means of implementation

Finance

Under the Paris Agreement developed countries agree to provide financial resources to assist developing countries for both mitigation and adaptation (PA Art 9.1), and the provision of scaled-up financial resources '*should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies and the priorities and needs of developing countries*' (PA Art 9.4). The Agreement requires developed countries to lead mobilising climate finance from multiple sources, instruments and channels with an emphasis on the significant role of public funds (PA Art 9.3). For supporting instruments, Parties identify the Green Climate Fund (GCF) and the Global Environment Facility (GEF) as well as the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) (CP.21, 58), and possibly the Adaptation Fund (AF) (CP.21, 59).

Such mobilisation of climate finance '*should represent a progression beyond previous efforts*' (PA Art 9.3), which also applies to the NDC process (see section 7.2.2). The Agreement itself does not include any specific figure as a target or milestone. However, developed countries expressed their intention '*to continue their existing collective mobilisation goal through 2025*'. Prior to 2025 the CMA³¹ is expected to '*set a new collective quantified goal from a floor of USD 100 billion per year*', taking into account the needs and priorities of developing countries. Developed countries agree to biannually provide information on the provision and mobilisation of finance including '*projected levels of public financial resources*' to support developing countries while other parties providing support are encouraged to do so on a voluntary basis (PA Art 9.5). Review of efforts to provide climate finance

³¹ Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)

will inform the *global stocktake* (PA Art 9.6). Developed countries also agree to provide information on support for developing countries (actually) provided and mobilised through public intervention while other Parties are encouraged to do so (PA Art 9.7).

Technology

A new technology framework is established to provide oversight and guidance in promoting and facilitating enhanced action on technology development and transfer (PA Art 10.4). For 'accelerating, encouraging and enabling innovation', there will be technological and financial support for 'collaborative approaches to research and development, and facilitating access to technology, in particular for early stages of the technology cycle, to developing country Parties' (PA Art 10.5). Such support will be provided with a view to achieving a balance between mitigation and adaptation. Available information about efforts to support technology development and transfer will feed in the *global stocktake* (PA Art 10.6).

7.1.3 Scope of the Agreement and Decision: differentiation

The Paris Agreement has been hailed as a global and universal agreement that is applicable to all parties, adopted by 196 Parties with submissions of 189 INDCs. The implementation of the Paris Agreement will remain guided by 'equity and the principle of common but differentiated responsibilities and respective capabilities, considering different national circumstances' (PA Art 2). This means that the Paris Agreement maintains the guiding principle of the Convention, allowing some dynamic interpretation of 'national circumstances'. The Paris style of differentiation has been widely called 'self-differentiation' (e.g. Mbeva and Pauw 2016) because the Agreement allows their own interpretations by parties about what they are committed to and how they intend to realise these commitments in form of (Intended) Nationally Determined Contributions (INDCs, now NDCs).

Even though the Paris Agreement refers to developed and developing countries, it avoids a semi-permanent distinction between groups of Parties such as Annex vs non-Annex parties under the Convention and the Kyoto Protocol, and enables parties to take up different degrees of responsibilities for actions. The latter is possible because responsibilities for specific actions are differentiated through the specific provisions of the Agreement or Decision. For example, on mitigation, developed countries '*should* continue taking the lead by undertaking on *economy-wide absolute emission reduction targets*' whereas developing countries '*should* continue enhancing their mitigation efforts' by gradually 'moving over time towards such emission reduction or limitation targets' under national circumstances (PA Art 4, 4). Similarly, developed countries '*should* continue to take the lead in mobilising climate finance' (PA Art 9.3). On the other hand, for financial transfer, developed countries '*shall* provide financial resources' to support developing countries while *other countries* 'are encouraged to provide such support voluntarily' (PA Art 9, 1-2), which implicitly assumes convergence in action among groups of countries over time.

Among developing countries, two groups of countries are granted a special status for their vulnerability to the adverse effects of climate change. Special circumstances of the LDCs and SIDs are considered in the context of adaptation, finance, capacity-building and transparency (PA Art 7.6; Art 9.4 & 9.9; Art 11.1; and Art 13. 3 respectively).

7.2 POST-2020 MITIGATION

A majority of the negotiators and observers welcomed that the level of ambition in the Paris Agreement was much higher than they had anticipated before. One of the main reasons is that the COP21 had been well informed by the latest climate science, particularly by the IPCC 5th Assessment Report (AR5) and UNEP's 2015 emissions gap report.

7.2.1 Climate science and intended nationally determined contributions (INDCs)

The AR5 Working Group III (WG III) on mitigation estimates that, driven by global population and economic growths, and without additional mitigation efforts beyond those in place now, the global mean surface temperature will increase by 3.7°C to 4.8°C by 2100, compared to pre-industrial levels (IPCC 2014). Mitigation scenarios consistent with a *likely* chance to keep temperature change below 2°C relative to pre-industrial levels³² involve substantial cuts in anthropogenic GHG emissions by mid-century through large-scale changes in energy systems and potentially land use (IPCC 2014). Moreover, the annual UNEP report concludes from assessment of the latest IPCC data that in order to stay below 2 °C temperature rise, CO₂ emissions need to be reduced to net zero by 2060-2075 (UNEP 2015). Key issues are: i) for scenarios analysing 2°C pathways based on the Cancun pledges until 2020 require strong reductions after 2020, part of which may rely on negative emission technologies such as bioenergy CCS (or BECCS) which remain controversial; and ii) scenarios analysing 1.5°C pathways require steeper reductions (UNEP 2015).

In response to these challenges, cost-effective mitigation scenarios on track to stay below 2°C require annual GHG emissions in 2030 of roughly between 30 GtCO₂eq and 50 GtCO₂eq. Scenarios with annual GHG emissions above 55 GtCO₂eq in 2030 lead to substantially higher rates of emissions reductions from 2030 to 2050 (IPCC 2014). Similarly, UNEP estimates that the median emission level in 2030 on track to stay below 2°C is 42 GtCO₂e and the level for staying below 1.5°C is 39 GtCO₂e (UNEP 2015).

In this context, the COP21 Decision noted concerns that the estimated aggregate GHG emission levels in 2025 and 2030 resulting from the INDCs do not fall within least-cost 2 °C scenarios but rather lead to a projected level of 55 Gt in 2030. Much greater emission reduction efforts will be required than those foreseen with the INDCs in order to hold the increase in the global average temperature to below 2 °C above pre-industrial levels, by reducing emissions to 40 Gt, or to 1.5 °C above pre-industrial levels (CP.21, Art 17).

³² These scenarios reach atmospheric concentration levels of about 450 ppm CO₂eq by 2100.

GHG Emissions Pathways to 2030

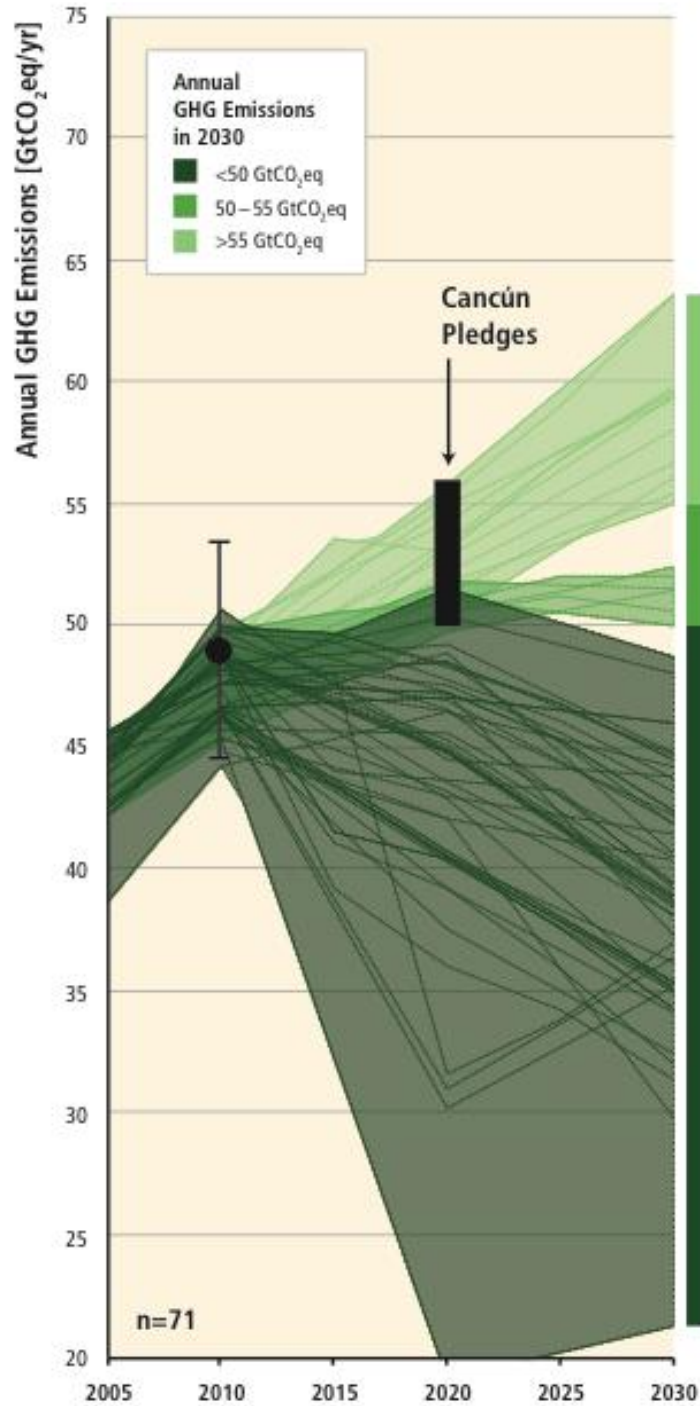


Figure 2: GHG Emission pathways to 2030

Source: Figure SPM.5, IPCC 2014

This panel shows the pathways of GHG emissions (GtCO₂eq/yr) leading to these 2030 levels. The black bar shows the estimated uncertainty range of GHG emissions implied by the Cancun Pledges.

Both the UNFCCC and UNEP provide a scientific assessment over aggregated effects of mitigation contributions from 119 INDC submissions (as of 1 Oct, 2015), and compare the resulting emission levels in 2030 with what is required to stay on the track to limit the global temperature increase below 2°C by 2100 (UNEP 2015). While the emission level in 2030 on track to stay below 2°C is estimated to be 42 GtCO₂e, the level of emissions based on assessment of the INDCs submitted by Oct 2015 is projected to be 56 GtCO₂e in 2030 for implementation of unconditional INDCs and 54 GtCO₂e in 2030 for including implementation of conditional INDCs. In the latter case, the estimated emission level is most consistent with scenarios limiting the temperature increase to *below* 3-3.5 °C by the end of the century (UNEP 2015).³³ The UNFCCC estimates the implementation of the communicated INDCs (both unconditional and conditional) results in aggregate emission levels of 56.7 Gt CO₂eq in 2030 (UNFCCC 2015).

7.2.2 The COP21 outcome

Strong support from the scientific community as described above helped Parties agree on the combination of explicit references to long-term goals such as 2°C, 1.5°C and net-zero emissions in 2050-2100, taking into consideration the special circumstances of the LDCs and SIDS:

- i) '*holding* the increase in the global average temperature to *well below* 2°C above pre-industrial levels and *pursuing efforts* to limit the temperature increase to 1.5°C above pre-industrial levels' (PA Art 2, 1 (a));
- ii) aiming 'to reach *global peaking of greenhouse gas emissions as soon as possible*, recognising that *peaking will take longer for developing country Parties*, and to undertake *rapid reductions thereafter* in accordance with best available science' (PA Art 4, 1);
- iii) 'so as to achieve a *balance between anthropogenic emissions by sources and removals by sinks* of greenhouse gases *in the second half of this century*' (PA Art 4, 1), which can be interpreted as aiming at net zero-emissions.

It is important to note that the exact wording is different for 2°C and 1.5°C goals with the latter being aspirational because policymakers found scientific findings not conclusive enough for policy implications. IPCC WGIII reports that only a limited number of studies have explored scenarios that are more likely than not to limit the temperature change to below 1.5 °C by 2100 above pre-industrial levels (IPCC 2014). On the other hand, assessment over the aggregated effects of the communicated INDCs on the global emission levels was done in October 2015 and will be updated by April 2016 (CP.2, 19). This information will feed in two tasks planned in 2018: one is to hold 'a *facilitative dialogue* to take stock of the collective efforts' of parties and assess the progress towards the long-term goal, and to inform the preparation of nationally determined contributions (NDCs) (CP.21, 20 and 115); the other is for the IPCC to provide a special report in 2018 on the impacts of climate change with the

³³ The Climate Action Tracker projects that the full implementation of the INDCs submitted by 1 Oct 2015 will lead to holding the temperature increase to 2.7°C. See Climate Action Tracker (2015).

temperature increase to 1.5°C and related emission pathways (CP.21, 21). The IPCC report could inform the facilitative dialogue.

The Paris Agreement formally recognises all Parties' efforts as NDCs to the global response to climate change, considering the need to support developing country Parties for the effective implementation of this Agreement (PA Art 3). Each Party's successive NDC 'will represent a *progression over time beyond the Party's then current nationally determined contribution* and reflect its *highest possible ambition*' (PA Art 3; Art 4.3) (i.e. the future level of ambition should be higher or equal to the current one), which can be called 'ratcheting (up)'. Each party agrees to communicate an NDC *every five year*, informed by the outcomes of *the global stocktake* (PA Art 4.9) (to be introduced below). Not bound by the five-year cycle, however, a Party may at any time adjust its existing NDC with a view to enhancing its level of ambition (PA Art 4.11). Beyond communicating and implementing NDCs (PA Art 4.13), all Parties '*should strive to formulate and communicate long-term low greenhouse gas emission development strategies*' in line with the three goals (ambition, adaptation, finance) described in Art 2 (PA Art 4.19).

The Paris Agreement organises successive NDC submissions in a bottom-up manner and therefore requires a strong and effective review process and a framework to ensure accountability and transparency. Parties agreed on a review process called *global stocktake* under the COP to 'periodically take stock of the implementation' of the agreement in order to assess the collective progress in a facilitative manner (PA Art 14.1). The first stocktake is scheduled in 2023 and every five year thereafter (PA Art 14.2). This review process is comprehensive in coverage: including not only mitigation but also adaptation and the means of implementation and support (PA Art 14.1). The outcome of the review process is expected to help Parties update and enhance national actions as well as enhance international cooperation for climate actions (PA Art 14.3).

It is important to note that the timing of the review is designed at halfway of the five-year cycle of NDCs so that these two processes can reinforce each other:

- NDCs: (2016 submission), 2020, 2025 ...
- Assessment and review: (2018 facilitative dialogue informed by an IPCC special report), 2023, 2028 ...

Parties agree to account for anthropogenic emissions and removals in relation to their NDCs, ensuring 'environmental integrity, transparency, accuracy, completeness, comparability and consistency' (PA Art 4.14). Among these norms, transparency and flexibility deserve special attention in the Paris Agreement. A new transparency framework established by the Agreement provides flexibility needed for developing countries to carry out climate actions, taking into consideration their different capacities (PA Art 13. 1-2). The transparency framework will be 'implemented in a *facilitative, non-intrusive, non-punitive* manner' (PA Art 13.3). Two main aims of the framework are clarification of both action and support in progress (PA Art 13.5-6):

- i) to provide a clear understanding about climate *action*, including clarity and tracking of progress towards achieving Parties' individual NDCs (PA Art 4) and 'good practices, priorities, needs and gaps, to inform the global stocktake' (PA Art 14); and
- ii) to provide clarity about *support* provided and received by Parties (including PA Art 4) and, where possible, to provide 'a full overview of aggregate financial support provided, to inform the global stocktake' (PA Art 14).

In practice, Parties are required to provide the following information. The coverage of information requested is comprehensive, concerning national inventories of emissions and removals using good practice methodologies accepted by the IPCC, (necessary to track the) progress in implementing and achieving their NDCs, climate impacts and adaptation, and financial, technology transfer and capacity-building support provided and received (PA Art 13.7-10).³⁴ The communicated information will be subject to a technical expert review for the Party's support provided, implementation and achievement of its NDC, and identification of areas for improvement (PA Art 13.11-12).

7.3 PRE-2020 PLEDGES

Decision CP.21 also calls for enhanced action prior to 2020, which applies immediately, to ensure the 'highest possible mitigation efforts' (CP.21, 105). The level of post-2020 ambition by developing countries largely depends on the level of their pre-2020 ambition and achievement. That is why the ADP workstream 2 focused on the pre-2020 emission gap. Moreover, governments and investors will need to make investment decisions today to stay in line with the emission trajectories in 2025 or/and 2030.

In 2016-2020, the Decision proposes to enhance the existing technical examination process on mitigation involving the technology and financial mechanisms of the Convention, and to establish a new one on adaptation (CP.21, 109, 124). The assessment of the process will take place in 2017 (CP.21, 113).

The Decision reiterates the need of finance, technology and capacity-building support by developed countries to enhance the level of ambition by parties including developing countries. It '*strongly urges*' developed countries to 'scale up the level of finance with a roadmap to achieve the goal of jointly providing US\$ 100 billion per year by 2020 for mitigation and adaptation while significantly increasing adaptation finance' (CP.21, 114). The facilitative dialogue in 2016 also aims at identifying opportunities to enhance the provision of finance, technology and capacity-building support (CP.21, 115).

In relation to the Kyoto Protocol, the Decision encourages Parties to promote the voluntary cancellation of units issued under the Kyoto Protocol, including Certified Emission Reductions (CERs) under the Clean Development Mechanism that are valid during the second commitment period, 2013-2020 (CP.21, 106). A particular concern about environmental integrity and need to avoid double counting prompts both host and purchasing Parties to 'report transparently on *internationally transferred mitigation outcomes*, including outcomes used to meet international pledges' (e.g. Assigned Amount Units, AAUs) as well as emission units issued under the Kyoto Protocol (e.g. CERs) (CP.21, 107).

8 NEXT STEPS FOR THE EU

Following the successful conclusion of the Paris Agreement and COP Decision, the European Council (EU heads of state or government) invited the European Commission and the Council of Ministers to

³⁴ Among the four categories, it is voluntary for each party to regularly inform about the national inventories and progress in implementation of NDCs and for developed and other countries to inform about their provision of support (using the wording of 'shall'). It is obligatory for each party to inform about climate impacts and adaptation and for developed countries to inform about their receipt of support (using the wording of 'should').

assess the results, particularly in relation to the 2030 climate and energy framework and the next steps. Procedural issues on the agenda include signing and ratification of the Agreement, which is a precondition for its entry into force, and formal submission of the NDC due in April 2016. The policy agenda relevant for the NDC implementation includes a proposal for the reform of the EU emissions trading system (EU ETS) under review by the Council and the European Parliament, proposals for the Effort Sharing Decision (ESD) to cover non-ETS sectors and integration of the Land Use, Land Use Change and Forestry (LULUCF) sector into the GHG emission reduction target, all of which are expected in the first half of 2016. Other legislations to implement the 2030 energy and climate framework, such as the Energy Efficiency Directive and the Renewable Energy Directive, are also expected later in 2016 and 2017.

The European Commission published results of their assessment over the COP21 outcome in March 2016 (European Commission 2016). The EU will participate in the facilitative dialogue in 2018 and provide inputs to the IPCC special report aimed at providing a clearer understanding about implications of the aspirational goal of 1.5 °C. By 2020 the EU will also need to prepare a long-term decarbonisation strategy up to 2050 and intend to participate in the first *global stocktake* in 2023. The assessment is based on the current target, which was agreed by EU heads of state/government in October 2014, of *at least 40%* GHG emission reductions by 2030 from 1990 levels. Implementation of the 2030 EU climate and energy framework is a priority, and in this context the Commission asks the Council and the Parliament to handle with the above-mentioned legislative proposals. The implementation of the 2030 framework will be complemented by other broader policies to foster the enabling conditions for economic and social transitions. Finally, regaining confidence from the success of the COP21, in particular through the High Ambition Coalition, the Commission proposes to strengthen the EU's climate diplomacy, looking ahead to the next COP in Marrakech, Morocco in November 2016.

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Glossary

AAU	Assigned Amount Unit
ADP	Ad-hoc Working Group on the Durban Platform for Enhanced Action
AILAC	Independent Alliance of Latin America and the Caribbean (Chile, Colombia, Costa Rica, Guatemala, Panamá, Peru)
AR4	The 4 th Assessment Report
AR5	The 5 th Assessment Report
BASIC	Brazil, South Africa, India, China
BAU	Business As Usual
CBDR	Common But Differentiated Responsibilities
CER	Certified Emission Reduction
COP	Conference of Parties
CP2	the 2 nd Commitment Period (of the Kyoto Protocol)
ERF	Equity Reference Framework
ERU	Emission Reduction Unit
EIG	Environmental Integrity Group (Mexico, Liechtenstein, Monaco, the Republic of Korea and Switzerland)
EIT	Economy In Transition
EU	European Union (EU-27+Croatia)
EU-27	Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom
G20	Group of 20 (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States, EU)
GHG	Greenhouse Gas
GDP	Gross Domestic Product

Gt	Gigaton
GWP	Global Warming Potential
IAR	International Assessment and Review
ICA	International Consultation and Analysis
IPCC	Intergovernmental Panel on Climate Change
LMDC	Like Minded Developing Countries (Bolivia, China, Cuba, Dominica, Ecuador, Egypt, El Salvador, India, Iran, Iraq, Malaysia, Mali, Nicaragua, Philippines, Saudi Arabia, Sri Lanka, Sudan, Venezuela)
LULUCF	Land Use Land Use Change and Forestry
MRV	Measurement, Reporting and Verification
NAMA	Nationally Appropriate Mitigation Action
QEERTs	Quantified Economy-wide Emission Reduction Targets
QELROs	Quantified Emission Limitation or Reduction Objectives (or commitments)
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change