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Phoenix from the Ashes — An Analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change

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The views expressed in this paper are strictly those of the authors.

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Summary

After 25 years of UN climate diplomacy, the world's governments have for the first time in history negotiated a treaty that envisages climate action by all countries. Despite all shortcomings, the Paris Agreement may therefore be labelled a success. It also demonstrates that environmental multilateralism is not dead. The Parties to the UNFCCC were able to conclude a treaty under international law, with an innovative legal approach in order to satisfy the constitutional peculiarities of the USA. The successful outcome of Paris thus restored some of the confidence in international diplomacy lost over the last decade.

The agreement's ambition of limiting global warming to "well below 2 °C and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels" represents a quantitative increase compared to the previous wording and a re-interpretation of the Convention's ultimate purpose: The Convention's objective is to avoid dangerous climate change; the Paris Agreement now posits that any global warming is dangerous. Furthermore, countries agreed that the temperature limit is to be reached by, first, a peaking of greenhouse gas emissions "as soon as possible" and, second, "a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century". This is thus the main message from Paris: The age of fossil fuels is over.

Shortcomings include the lack of legal bindingness as far as national contributions relating to mitigation, adaptation and finance are concerned. And those contributions that countries have submitted fall far short of the stipulated global ambition: Even if fully implemented, global mean temperature would most likely still increase in the range of 2.7 °C to 3.5 °C. This is a serious shortfall and action to strengthen those contributions especially by large emitters must start already in 2018 in order to keep the world on a path that is considered safe for humanity.

But international negotiations can rarely take decisions that have not previously been prepared nationally. The role the international climate process can play at the moment is to serve as a catalyst for national developments by keeping the issue on the agenda and forcing national policy makers to continuously revisit it. The question is therefore not whether the Paris Agreement will deliver the emission reductions necessary, but whether the agreement has the potential to catalyse further changes, whether it becomes a pacemaker for policy processes – at the international level and in the capitals of the world. From this perspective, the Paris Agreement is much stronger than many had expected.

Instead of legal sanctions, the Paris Agreement relies on a mechanism of 'naming and shaming' to ensure implementation: it creates a reputational risk through the establishment of mandatory transparency and review provisions. This innovative review mechanism ("ratchet") aims for Parties to enhance their contributions every five years. Starting in 2018, these "stocktakes" will create moments of concentrated political attention every five years that may be used for fostering the dynamic of the process.

While there is no legal obligation to strengthen the first round of contributions, they are thus not necessarily the last word, given the growing awareness of climate change impacts and the growing dynamics in renewable energy, battery technologies and other solutions, which may

quickly render previous goals obsolete. Until now, the climate regime had no mechanism to confront governments with such developments – and to take up these dynamics.

It will be crucial for the success of the regular stocktakings that countries transparently report the implementation of their contributions, and subject their efforts to review. In this regard, the agreement defines a “transparency framework”, which has yet to be fleshed out. Apart from increasing the level of ambition, the details of the transparency framework will be the most relevant field of work in the coming years.

One reason the Paris Agreement won the support of developing countries was its recognition of two decade-long demands: First, it elevates the standing of adaptation in the international climate regime. Crucially, action on adaptation is to be reviewed and accelerated every five years in parallel to the contribution cycles for mitigation. However, while the need for substantial adaptation finance has been recognized in the Paris Agreement, it does not include a collective, quantified goal for adaptation finance.

And second, the Paris Agreement recognises that there are adverse climate impacts that cannot be adapted to – and that they must be dealt with. This was a crunch issue until the very end, because while developing countries wanted the concept of ‘Loss and Damage’ to be included in the final agreement text, developed countries feared it could be used for compensation and liability claims. The final outcome gives consideration to both positions: while the Paris Agreement features an article on loss and damage, the decision text contains a clause that excludes the concept to be used as a basis for compensation and liability claims.

The finance part of the Paris Agreement is weak. It does not contain any compulsory language to scale up climate finance. Only the accompanying decision text reiterates that the goal of mobilising an annual USD 100 billion of North-South financial flows in 2020 and beyond, promised already in Copenhagen, is still valid. Furthermore, Parties agreed to set a new, collective financing target by 2025. In this context, the USD 100 billion figure is now considered the floor of financial contributions – rather than the ceiling as before Paris.

The adoption of the Paris Agreement is not the end, but the beginning of a process. Its effectiveness depends on whether the momentum of Paris can be turned into a political force. This momentum was to a large extent created by the “high ambition coalition” of small island states, least developed countries and the EU. It ultimately even included traditional blockers such as Japan and the USA and was one of the main drivers of an outcome at the upper end of what seemed politically possible. Keeping this coalition alive, at least in its core, would help to work towards a progressive implementation and evolution of global climate policy, both inside and outside of the UNFCCC regime. Global climate diplomacy requires such a driver, as numerous occasions in the past have shown. The EU should not let this opportunity fade away and strengthen ties with those countries originally forming this group. This coalition would be in a position to push for the agreement’s early entry into force and for the quick strengthening of national contributions.

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List of Abbreviations

ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action
AILAC	Independent Association of Latin America and the Caribbean
CBDR-RC	Principle of common but differentiated responsibilities and respective capabilities
CDM	Clean Development Mechanism
CERs	Certified Emission Reductions
CfRN	Coalition of Rainforest Nations
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CO ₂	Carbon dioxide
CTCN	Climate Technology Centre and Network
DOEs	Designated Operational Entities
EU	European Union
G7	Group of Seven
G20	Group of Twenty
GHG	Greenhouse gas
ICAO	International Civil Aviation Organization
IEA	International Energy Agency
IMO	International Maritime Organization
INDCs	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
IPRs	Intellectual property rights
JMA	Joint Mitigation and Adaptation Mechanism
LAKI	Lima Adaptation Knowledge Initiative
LDCs	Least Developed Countries
LEG	Least Developed Countries Expert Group
LMDCs	Group of Like-Minded Developing Countries
LPAA	Lima-Paris Action Agenda
NAPs	National adaptation plans
NAZCA	Non-State Actor Zone for Climate Action
NGOs	Non-governmental organization
NWP	Nairobi Work Programme
OECD	Organization for Economic Co-operation and Development
OECD-DAC	The Organisation for Economic Co-operation and Development's Development Assistance Committee
REDD+	Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.
SBs	Subsidiary Bodies
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCF	Standing Committee on Finance
SIDS	Small Island Developing States
TEC	Technology Executive Committee
TEP	Technical Examination Process
TNA	Technology Needs Assessments
UK	United Kingdom
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USA	United States of America
USD	US Dollar
WIM	Warsaw International Mechanism on Loss and Damage associated with Climate Change Impacts
WS2	Workstream 2

1 Introduction

On 12 December 2015, the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) adopted the “Paris Agreement”. Paris thus finally concluded the long process of crafting a new international climate regime that began with the adoption of the Bali Roadmap in 2007, failed spectacularly in Copenhagen 2009, and resumed with a new approach in Durban 2011. The conference in Paris concluded this process, as demanded in the Durban Platform, with the adoption of a treaty under international law that represents the first really collective effort by the world community to tackle climate change.

Global political conditions at first sight did not seem to be particularly favourable for major advancements in environmental multilateralism. While Copenhagen had been overshadowed by the global financial crisis, in 2015, the world’s attention was riveted to the conflict between Russia and the Ukraine, the wars in the Middle East and the resulting mass refugee movement, and to the rise of Islamic terrorism. The conference’s host city itself had been shaken to the core by a terrorist attack taking more than one hundred lives two weeks before the conference’s start.

The political atmosphere of the climate negotiations going into the conference was, however, much more positive than in Copenhagen 2009. Of course, the negotiating text was still heavily bracketed, denoting areas of disagreement, and Parties were still rehashing the 25-year old arguments about who should contribute how much to the fight against climate change. But on the positive side, the negotiating text was much shorter than the text that had been on the table at the beginning of the Copenhagen conference. The workload was also much lighter than it had been in 2009. Copenhagen had had the task of forging an entirely new regime in all aspects, not only mitigation, but also adaptation, finance, technology and capacity building. Much of this work had been completed since 2010, with the creation of a raft of new institutions: the Green Climate Fund, the Adaptation Committee, the Technology Executive Committee and the Clean Technology Centre and Network.

Perhaps most importantly, the two traditional main antagonists, China and the United States of America (USA), had largely reconciled their differences in November 2014 already, with a highest-level announcement by the two presidents. Not only the traditionally progressive countries but also US diplomacy went into high gear to pave the way for the new agreement, with President Obama having defined climate policy as a legacy issue. This Sino-US rapprochement was supported by a host of multilateral efforts, peaking in September 2015 when United Nations (UN) Secretary General Ban Ki-Moon invited Heads of State and Government to a climate summit. On this occasion, civil society in the US staged the largest-ever climate demonstration, when more than 300.000 people gathered in New York to demand stronger climate action. This positive momentum was taken up and strengthened on the opening day of the conference by the attendance of 150 heads of state and government.

There was therefore much confidence that there would be some agreement in Paris. The question was whether it would be an agreement at the lowest common denominator or an agreement with actual impact. As environmental NGOs framed it: the choice was between an agreement that would limit the increase of global mean temperature to 1.5 °C compared to

pre-industrial levels or one that would take us to a world with an increase of 3 °C or more. In the end, the Paris Agreement leaves it open: The almost 200 countries assembled in Paris settled for a deal that offers the chance to keep global temperature rise at a level that does not endanger our civilisation – but only if the national and sub-national activities are swiftly and decisively strengthened and put into effect.

2 Tracing The Paris Outcome

2.1 Negotiation Dynamics

2.1.1 Overcoming Static Differentiation

While the Durban Platform contains a mandate to negotiate a new climate agreement “applicable to all”, the negotiations under the Durban Platform continued to be as dominated by disagreements over the respective roles of the so-called “industrialised” and “developing” countries as they have always been. The traditional industrialised countries (listed in Annex I of the UN Framework Convention on Climate Change) have been keen to break down the so-called “firewall”, the clear distinction between Annex I and non-Annex I countries (traditionally “developing countries”) that is laid down in the Framework Convention of 1992. While the Convention and its Kyoto Protocol have imposed obligations on Annex I countries, no such obligations have so far existed for non-Annex I countries. Annex I (industrialised) countries argued that this distinction was outdated since many non-Annex I (developing) countries were nowadays wealthier than many of the traditional industrialised countries and their contribution to global emissions had also grown rapidly.

By contrast, in particular the group of like-minded developing countries (LMDCs)¹ strongly resisted any explicit or implicit dissolution of the traditional distinction between the Annexes. They maintained that Annex I countries should continue to take the lead since they are the ones who caused the climate problem, even nowadays have much larger economic resources to do something about it, and have in the view of the LMDCs so far mostly failed to meet their previous commitments in terms of reducing their own emissions and in providing support to non-Annex I countries. However, the configuration of negotiation groups changed significantly over the last five years, with the G77 and China, the traditional coalition of most developing countries, losing much of its former coherence. Within this group, the countries most vulnerable to the impacts of climate change, the small island developing states (SIDS) and the least developed countries (LDCs), increasingly demanded strong mitigation action by all large emitters, be they from early countries or newly industrialised countries. Further differentiation was marked by the formation of the Independent Association of Latin America and the Caribbean (AILAC), a group of progressive countries that posited that all countries should contribute strongly to fighting climate change.

¹ The group of like-minded developing countries includes China, India, and other Asian countries such as Malaysia, countries in the Organization of Petroleum Exporting Countries such as Saudi Arabia, and some Latin American countries such as Bolivia and Venezuela

The negotiations were also strongly complicated by the inability of the USA to ratify any legally binding climate agreement under the constitution and the current configuration of national political realities. In the run-up to Paris, the US Republican Party made its opposition to any climate action clearer than ever before. The line had historically been that the USA should not commit to climate action unless its main competitors, in particular China, also committed. The Obama administration undercut this line of reasoning with a series of high-level initiatives demonstrating that China and others were in fact willing to step up their efforts. The US Republicans reacted by publicly declaring that US participation in the new climate agreement was not going to be reliable as they would do whatever they could to undermine any action the Obama administration was going to take.² The Durban Platform negotiations were thus strongly dominated by the US administration's desire to shape an agreement that would not require ratification by Congress. This entailed in particular avoiding adoption of any legally binding commitments.

The main breakthrough to overcome this series of obstacles was arguably already made at the 2013 conference in Warsaw, which created the concept of Intended Nationally Determined Contributions (INDCs). Using the term "contributions" instead of "commitments" accommodated the position of the LMDCs that there should be no binding commitments for non-Annex I countries – as well as the US's desire to avoid commitments. On the other side, Annex I countries prevented creating any differentiation between themselves and non-Annex I countries regarding the legal nature of participation in the new agreement; instead of differentiated provisions as demanded by the LMDCs, the Warsaw decision contained only one set of provisions applying to all countries.³ The world community therefore settled on a lower common denominator in the endeavour to establish common national activities for all countries.

In contrast to Copenhagen, the basic shape of the Paris Agreement had therefore been defined well in advance of the crucial conference. There was thus increasing optimism that Paris would not become another Copenhagen. But the question was whether the new agreement was going to be worth the paper. Up until the second to last version of the new agreement submitted by the French presidency, the options for the outcome ranged from high ambition to near-meaningless.

Adoption of the more ambitious end of the range was helped along by the re-formation of the Durban coalition of the European Union (EU), LDCs, SIDS and other progressive countries that had secured the adoption of the Durban Platform. The "high ambition coalition" was initiated by the Marshall Islands and had been in the works for half a year before entering the limelight in the middle of the second week. This time it became even more broad-based than in Durban, ultimately effectively taking in all major groups except the LMDCs. The main goals of the "ambition coalition" were to achieve a legally binding agreement, an ambitious

² GOP to attack climate pact at home and abroad, <http://www.politico.com/story/2015/09/gop-congress-climate-pact-paris-213382>

³ Sterk, W., C. Arens, N. Kreibich, L. Hermwille, F. Mersmann, T. Wehnert (2013): Warsaw Groundhog Days – Old Friends, Positions and Impasses Revisited All Over Again at the 2013 Warsaw Climate Conference. Wuppertal: Wuppertal Institute for Climate, Environment and Energy. <http://wupperinst.org/en/info/details/wi/a/s/ad/2447/>

long-term goal, five-year cycles to review and strengthen countries' contributions, and strong transparency provisions to track countries' progress in implementing their contributions.⁴

What tilted the balance in favour of a comparatively ambitious agreement was apparently in particular Brazil's joining of the ambition coalition. Brazil had in recent years usually been aligned with China and India, who were opposing the ambition coalition's demands on the long-term goal, five-year cycles and transparency. Brazil's break with its usual allies was reportedly a game changer that gave the French presidency room to keep pushing for an ambitious outcome.⁵

The way to agreement was also paved by the strong alignment of the China and the US, which had been crucial in shaping the basic contours of the deal. How close the rapprochement of the traditional antagonists had become was highlighted in the final hours of the conference, when the USA sought to correct a "typo" in the final draft of the agreement, substituting "should" for "shall" in the sentence "Developed country Parties shall continue taking the lead by undertaking economy-wide absolute emission reduction targets." As noted above, the US was meticulous to ensure that no language would find its way into the agreement that could be construed as constituting new commitments which would require Congressional approval. This last-minute change might easily have unravelled the entire agreement, and it was reportedly China who bailed the USA out. Where the "shall" came from appears to be a mystery.⁶ The sentence echoes Article 3.1 of the UNFCCC, which also has "should."

2.1.2 A Climate Diplomacy Masterpiece

Maintaining the constructive spirit throughout the fortnight of negotiations was not least the result of the extraordinary leadership provided by the French Presidency. The French Minister of Foreign Affairs and International Development, Laurent Fabius and his team, headed by Climate Change Ambassador Laurence Tubiana, had meticulously studied the failure of Copenhagen as well as the much more successful negotiations in Cancún and Durban. Six diplomatic manoeuvres helped to ensure the success of the Paris talks:

- **Laying the ground early:** Already before the 2014 Conference of the Parties (COP) in Lima, the French worked together with the Peruvian presidency to organise a series of ministerial meetings "to get the ministers well-acquainted".⁷
- **Inviting Heads of States early to kick off the talks:** The attendance of Heads of State and Government at the opening of the talks set the scene for successful negotiations. It raised the stakes but at the same time allowed ministers to engage in the negotiations having the mandate for final submissions. In Copenhagen, negotiations had

⁴ EU and 79 African, Caribbean and Pacific countries join forces for ambitious global climate deal, http://ec.europa.eu/clima/news/articles/news_2015120802_en.htm

⁵ Foie gras, oysters and a climate deal: How the Paris pact was won, <http://www.climatechangenews.com/2015/12/14/foie-gras-oysters-and-a-climate-deal-how-the-paris-pact-was-won/>

⁶ China rescues US from Paris climate deal 'typo' fiasco, <http://www.climatechangenews.com/2015/12/12/china-rescues-us-from-paris-climate-deal-typo-fiasco/>

⁷ IISD Reporting Services (2015): Earth Negotiations Bulletin, Vol. 12, No. 663. Summary of the Paris Climate Change Conference: 29 November -13 December 2015. Paris: IISD Reporting Services. <http://www.iisd.ca/download/pdf/enb12663e.pdf>

entered an impasse because negotiators (and ministers) felt they had no mandate to make final decisions with their bosses coming in to seal the deal at the end of the negotiations. And since the Heads of State or Government were not in a position to negotiate substantive issues, the talks collapsed. This was avoided in Paris and the weight of Presidents and Prime Ministers turned into a positive force.

- **Ensuring participation and transparency:** All Parties including LDCs and SIDS highlighted the inclusive approach of the French presidency. Minister Fabius and his team relied heavily on the *indaba* negotiation format, which had been successfully employed by the South African hosts in Durban.⁸ *Indaba* is a technique applied by Zulu and Xhosa peoples in southern Africa. In this format, delegates must not repeat their stated positions but outline their “red lines” and at the same time provide solutions for common ground, so-called “landing zones”. This approach allowed every Party to voice its views and positions and at the same time proved to be very effective in identifying consensus.
- **Embracing potential critics:** COP President Fabius appointed some of the most vocal critics as facilitators for the different issues, effectively vesting them personally in finding solutions. For example, Venezuelan Head of Delegation Claudia Salerno, who had harshly criticised the Copenhagen process, facilitated negotiating the preamble text of the Paris Agreement. Similarly, Fabius appointed the Bolivian Minister René Orellana together with his Swedish colleague to facilitate negotiations on loss and damage, and Brazilian Minister Izabella Teixeira to host the consultations on differentiation in the context of mitigation, transparency and finance.
- **A ‘no surprise’ policy:** The French Presidency maintained a tight yet inclusive schedule. While in Copenhagen Parties spent almost the entire first week of the COP fighting over agenda issues, the roadmap of the COP21 negotiation process had been set well in advance. Also, the French Presidency did not attempt to short-cut the negotiation process by introducing its own negotiation text (as it had been attempted during the failed conferences in The Hague, 2000, and Copenhagen, 2009). Instead, they engaged ministers in the laborious process of cleaning up the heavily bracketed draft text that had been prepared by Parties themselves. This effectively created an understanding for collective responsibility for success or failure of the text.⁹
- **Providing an impeccable environment:** In contrast to the set-up in Copenhagen, the Paris talks were superbly organized. Decent food, spacious and a well-organized conference venue played their part in maintaining a positive atmosphere. Also, the unusual scheduling contributed to the success. For example, the talks commenced already one day early. Also in the decisive moments COP President Fabius did not rush to present new text but announced well in advance that new draft negotiation text would be

⁸ Sterk, W., C. Arens, F. Mersmann, H. Wang-Helmreich, T. Wehnert (2011): On the Road Again. Progressive Countries Score a Realpolitik Victory in Durban While the Real Climate Continues to Heat Up. Wuppertal: Wuppertal Institute for Climate, Environment, Energy. <http://wupperinst.org/en/info/details/wi/a/s/ad/1593/>

⁹ IISD Reporting Services (2015): Earth Negotiations Bulletin, Vol. 12, No. 663. Summary of the Paris Climate Change Conference: 29 November -13 December 2015. Paris: IISD Reporting Services. <http://www.iisd.ca/download/pdf/enb12663e.pdf>

distributed only on Saturday morning, allowing everybody to at least get some sleep before the final consultations began.

And crucially, the French team had an intimate technical knowledge of all the negotiation issues. This enabled the Presidency to pursue a “high-level equilibrium”, where all negotiation groups had to make concessions, rather than a low-level equilibrium, the lowest common denominator.¹⁰ Due to these factors, the French Presidency was able to reverse the traditional negotiation script: Typically, in the final hours draft texts tend to be watered down. In Paris, though, the level of ambition was increased with the final draft that was ultimately agreed.

2.2 Legal Form – Treaty or Not?

The Paris outcome consists of two parts: the Paris Agreement, and the COP decision which adopts the agreement and sets out steps to be taken in the next years until the agreement enters into force.

The Paris Agreement was the result of a process that had been initiated by the 17th Conference of the Parties in Durban 2011. There, the Parties had decided “to launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties”.¹¹ This formula was a compromise between, on the one hand, the EU and many developing countries calling for a legally binding treaty and, on the other hand, the US who was adamant to achieve an outcome that did not need the approval of the Senate, and China and India who insisted that there should be no new commitments for developing countries.¹²

The ‘natural’ legal form of the Paris Agreement would have taken the shape of a protocol like the Kyoto Protocol, as provided for in Article 17 of the UNFCCC.¹³ This convention-protocol construction was the preferred approach developed in the late 20th century for environmental treaty regimes.¹⁴ This, however, would have forced the US Government to submit the protocol to the Senate for ratification. The Parties in Paris thus chose a legal form that is not provided for in the UNFCCC because it is neither an amendment to the convention nor a protocol. This innovative legal approach immediately sparked a discussion in the US whether the Paris Agreement is a treaty and whether it has to be submitted to the Senate for ratification.¹⁵

¹⁰ The Paris Agreement: historic! What’s next? <http://www.blog-iddri.org/2015/12/14/the-paris-agreement-historic-but-whats-next/>

¹¹ Decision 1/CP.17: Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, FCCC /CP/2011/9/Add.1, 15 March 2012.

¹² Sterk, W., C. Arens, F. Mersmann, H. Wang-Helmreich, T. Wehnert (2011): On the Road Again. Progressive Countries Score a Realpolitik Victory in Durban While the Real Climate Continues to Heat Up. Wuppertal: Wuppertal Institute for Climate, Environment, Energy. <http://wupperinst.org/en/info/details/wi/a/s/ad/1593/>

¹³ As for the history, see Oberthür, S., H. E. Ott (1999): The Kyoto Protocol. International Climate Policy for the 21st Century. Berlin/Heidelberg et al.: Springer Verlag, pp. 239ff.

¹⁴ Cf. Ott, H. E. (1998): Umweltregime im Völkerrecht. Eine Untersuchung über neue Formen internationaler institutionalisierter Kooperation am Beispiel der Verträge zum Schutz der Ozonschicht und zur Kontrolle grenzüberschreitender Abfallverbringungen. Baden-Baden: Nomos Verlag, pp. 88.

¹⁵ Is the Paris Climate Agreement a Treaty? <http://beforeitsnews.com/environment/2015/12/is-the-paris-climate-agreement-a-treaty-2543856.html>

The answer to this question requires a distinction between the international legal system and the national legal sphere of the United States of America. In public international law, a treaty is defined as meaning “an international agreement concluded between States in written form and governed by international law”.¹⁶ The Paris Agreement was certainly concluded between states and in written form, but is it also governed by international law? Since the agreement was concluded at an international conference “in pursuit of the objectives of the Convention” and since it uses the bodies and procedures developed in the context of the Convention (undoubtedly an international treaty), it may safely be concluded that it is governed by international law. The Paris Agreement is thus a (dependent) treaty under international law. It is dependent on the UNFCCC because only Parties to the Convention may ratify and because it cannot stand alone, since many clauses refer to the respective procedures and bodies of the UNFCCC.

Inside the US legal system, the analysis looks different. The executive branch may conclude “treaties” and “international agreements other than treaties”. The former need a two-thirds majority in the Senate for ratification, whereas other international agreements can be enacted by the US Government alone. The core question is thus whether the Paris Agreement is considered a “treaty” under US constitutional law. The issue is addressed by the Foreign Affairs Manual of the US State Department, which provides that a president may conclude “international agreements other than treaties” in three cases, e.g., pursuant to a treaty authorized by the Senate, on the basis of existing legislation, and pursuant to his authority as chief executive when such an agreement is not inconsistent with legislation enacted by Congress.¹⁷ Since the Paris Agreement has been adopted pursuant to the UNFCCC, which has been ratified by the Senate, can be implemented based on the existing Clean Air Act and other legislation¹⁸, and does not impose new substantive obligations upon the USA, it may be considered an “international agreement other than a treaty”¹⁹ under US law and thus not require the approval of the Senate.²⁰

There is thus a real chance that the Paris Agreement might be spared the fate of the Kyoto Protocol, which was never even submitted to the Senate and which lacked the support of the USA. It may therefore fulfil its function as a truly global agreement. The price to pay was one lesser one, namely the choice of a legal form that is not supported by specific provisions of the convention. The second price weighs heavier, though: The Paris Agreement does not contain any binding obligations with regard to emission reduction or financing activities. These contributions were framed in non-binding language and/or relegated to decisions that

¹⁶ Vienna Convention on the Law of Treaties (1969), Article 2.1 (a).

¹⁷ Foreign Affairs Manual - Chapter 700 Treaties and other international agreements, <http://www.state.gov/e/oes/rls/rpts/175/1319.htm>

¹⁸ New analysis even concludes that the Paris Agreement unlocks the potential for the US Administration to use provisions of the Clean Air Act that could so far not be applied to addressing climate change, see How The Paris Climate Agreement Super-Charges The Clean Air Act, <http://thinkprogress.org/climate/2016/01/14/3739649/paris-climate-agreement-clean-air-act/>

¹⁹ Not an “Executive Agreement”, however, because “the term ‘executive agreement’ is appropriately reserved for agreements made solely on the basis of the constitutional authority of the President.”, see Foreign Affairs Manual - Chapter 700 et seq TREATIES AND OTHER INTERNATIONAL AGREEMENTS, at 721.1.b, <http://www.state.gov/e/oes/rls/rpts/175/1319.htm>

²⁰ This approach is not new and was, e.g., also chosen 2013 for the conclusion of the Minamata Convention on Mercury: <https://www.washingtonpost.com/news/powerpost/wp/2015/11/30/trick-or-treaty-the-legal-question-hanging-over-the-paris-climate-change-conference/>. See also the note of the State Department: <http://www.state.gov/r/pa/prs/ps/2013/11/217295.htm>

are not considered legally binding. And, one may conclude, the Paris Agreement provides just another example where the political and constitutional peculiarities of one country determine the shape of a vital agreement to protect the global commons.

However, the agreement contains legally binding obligations to communicate new national contributions every five years. The Paris agreement therefore does not resolve anthropogenic climate change in the same way as the Montreal Protocol resolved the issue of atmospheric ozone. Instead, it creates periodical political space that needs to be filled through national ambition (see section 3.5).

2.3 Purpose of the Agreement

The basic purpose of the agreement was one of the many areas where the issue of differentiation was fought out. While in particular the LMDCs wanted language that the agreement should “enhance the implementation of the Convention”, implying a continuation of the distinction between the Annexes, developed countries and AILAC supported language to “further the objective of the Convention”. The USA would have preferred having no separate article on purpose and to instead reflect purpose in the respective parts of the agreement.

There was also controversy on whether to explicitly reference the Convention’s principle of common but differentiated responsibilities and respective capabilities (CBDR-RC). The USA had opposed including any references to this principle in the Durban Platform decision, reading it as shorthand for continuing the dichotomy of the Annexes.²¹ However, in 2014, the joint announcement by China and the USA had explicitly referenced CBDR-RC, but adding the phrase “in light of different national circumstances”, thus maintaining the basic principle but accommodating the US demand for a “dynamic” interpretation. This wording was subsequently also included in the Lima Call for Climate Action²², but in Paris there was nonetheless resistance to including this wording in the agreement.

Regarding specific objectives of the agreement, in 2010, at COP16 in Cancún, Parties had agreed to keep global temperature increase below 2 °C compared to pre-industrial levels. However, this had only been a COP decision, the question was therefore whether it would be possible to enshrine this temperature limit in the treaty that was to come out of Paris. In addition, SIDS and the LDCs had long argued that 2°C was too weak a limit for them, with the associated sea-level rise and other impacts threatening the mere survival of some of their members. They had therefore long pushed for strengthening the limit to 1.5 °C, and due to their insistence the 2010 COP in Cancún agreed that a review of the temperature limit would be conducted in 2013-2015. This review notwithstanding, until Paris the push for 1.5 °C had found little favour with the large emitters – the ones who would need to undertake the necessary emission reductions. Industrialised countries thus for a long time argued for maintaining the below 2 °C limit, while in particular many oil-exporting countries preferred not to have any temperature limit at all in the Paris agreement, and definitely not 1.5 °C. The LMDCs

²¹ Sterk, W., C. Arens, F. Mersmann, H. Wang-Helmreich, T. Wehnert (2011): On the Road Again. Progressive Countries Score a Realpolitik Victory in Durban While the Real Climate Continues to Heat Up. Wuppertal: Wuppertal Institute for Climate, Environment, Energy. <http://wupperinst.org/en/info/details/wi/a/s/ad/1593/>

²² Decision 1/CP.20, Lima Call for Climate Action, FCCC/CP/2014/10/Add.1, 2 February 2015.

argued that they could agree to 1.5 °C under the condition that there was clarity on how this limit was going to be met. In their view, achieving 1.5 °C would be the responsibility of the industrialised countries, requiring a massive scale-up of their own reductions and of support to developing countries, which were, however, not forthcoming.

Completion of the 2013-2015 review of the temperature limit was similarly blocked. The review process had included a structured expert dialogue with scientists which had, among other things, concluded that holding global warming below 2 °C was inadequate to prevent dangerous climate change. However, in Paris, in particular China and Saudi Arabia blocked adopting any substantive conclusions on the review, preferring to adopt only procedural conclusions, taking note of the report from the expert dialogue and thanking the experts involved.

Positions on the temperature limit shifted substantially during the Paris conference. While before the conference few expected agreement on the 1.5 °C limit, in Paris, first individual EU member states and then the entire EU came around to support 1.5 °C as part of forming the “high ambition coalition”. Support for 1.5 °C was a *conditio sine qua non* for AOSIS and the LDCs, with whom the EU sought to align. The USA and other industrialised countries subsequently also shifted their position in favour of 1.5 °C. One may surmise that these changes in position were motivated by negotiation tactics to separate the poorer developing countries from the large emerging economy countries.

The final agreement includes as objective to hold the increase in the global average temperature to “well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels”. In addition, the agreement sets objectives to increase “the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production”, and to make “finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development”. All these objectives are set in the context of sustainable development and efforts to eradicate poverty.²³ The latter is an acknowledgement of developing countries development concerns, which need to be taken into account in efforts to combat climate change.

The agreement also repeats the Sino-US compromise on the Convention’s CBDR-RC principle, adding “in the light of different national circumstances.”²⁴ While developing countries thus won a hard-fought battle for re-iteration of the differentiation principle, the new language can be interpreted to move beyond the static dichotomy of the Convention’s Annexes.

2.4 Individual Efforts

The negotiations on countries’ contributions also largely revolved around the issue of differentiation. As noted above, many developing countries demanded that the Paris Agreement should continue the clear differentiation between Annex I and non-Annex I in the

²³ Paris Agreement, Art. 2.1. Decision 1/CP.21, Adoption of the Paris Agreement. FCCC/CP/2015/10/Add.1, Annex: Paris Agreement, 29 January 2016.

²⁴ Ibid., Art. 2.2.

Convention while developed countries wanted to dismantle this “firewall”. They argued that this issue had been put to rest with the introduction of the concept of INDCs, where countries could “self-differentiate” by adopting contributions in line with their individual national circumstances.

One main controversy in the negotiations was whether particular groups of countries should be required to adopt particular types of contributions. In particular the LMDCs demanded that industrialised countries should adopt legally binding commitments without any conditions attached, while mitigation contributions by developing countries should continue to be voluntary and conditional on the provision of support by industrialised countries. They therefore wanted to effectively copy-paste the Convention’s provision that the extent to which developing countries would implement the agreement would depend on the effective provision of finance, technology and capacity-building by developed countries. Industrialised countries in turn held that all countries should be obliged to offer an unconditional mitigation contribution (with the possibility to indicate further efforts that would be subject to the provision of support).

On the content of contributions, developing countries demanded that industrialised countries should adopt absolute economy-wide emission reduction targets while developing countries’ contributions should be allowed to be diverse in nature, in accordance with respective national circumstances. By contrast, many industrialised countries demanded that all major economies should be required to adopt economy-wide emission targets. Furthermore, industrialised countries wanted to limit the scope of contributions to mitigation, while developing countries held that industrialised countries’ contributions should also include support to developing countries and that developing countries should be allowed to also include adaptation. Many developing countries strongly rejected a “mitigation-centric” agreement, demanding that there should be parity between mitigation, adaptation and provision of support.

The USA had introduced a twist into the issue of bindingness. They had for a long time suggested that while all countries should be legally bound to provide contributions under the new agreement, the content of the contributions should not be legally binding. In Paris, there was thus a controversial debate on whether the agreement should require Parties to only “prepare and communicate” contributions, or whether Parties should also be required to “implement” them.

Art. 3 of the final agreement reads as follows: “As nationally determined contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in Article 2.”²⁵ The article thus reflects developing countries’ demand that contributions should cover not only mitigation but all elements, as Art. 4 covers mitigation, Art. 7 adaptation, Art. 9 finance, Art. 10 technology, Art. 11 capacity-building, and Art. 13 transparency. However, the agreement does not make developing countries’ contributions conditional on the provision of support, but it does recognise “the need to support developing country Parties for the effective implementation of this Agreement.”²⁶

²⁵ Ibid., Art. 3.

²⁶ Ibid.

The subsequent Art. 4 spells out the details on the contributions, stipulating that each Party “shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve.” In addition, “Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.”²⁷ The contributions are to be housed in a public registry maintained by the Secretariat.²⁸ The agreement also enshrines the principle that there shall be no backsliding in contributions by requiring that each successive contribution “will represent a progression beyond the Party’s then current nationally determined contribution”.²⁹

Differentiation is addressed by the provision that developed countries “should continue taking the lead by undertaking economy-wide absolute emission reduction targets”, while developing countries are called upon to “continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances.”³⁰ Furthermore, support “shall be provided to developing country Parties for the implementation of this Article (...) recognizing that enhanced support for developing country Parties will allow for higher ambition in their actions.”³¹ The section also repeats the compromise on the CBDR-RC principle, stipulating that a Party’s contribution will reflect “its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.”³²

Further guidance on features of contributions, such as common timeframes, is to be developed in the coming years. Earlier drafts had included language that mitigation contributions should include unconditional parts, but this provision did not survive in the final agreement. Neither are there mandatory information requirements for the submission of contributions yet. Here as well further guidance is to be developed in the coming years.³³

2.5 Mitigation

The mitigation part of the negotiations involved a complex set of sub-issues. At the aggregate level, there was the question of whether to further operationalize the temperature limit by means of another qualitative or quantitative long-term goal. Further discussions revolved around whether to have specific provisions addressing emissions from deforestation and from international aviation and shipping, and whether to include market-based mechanisms as in the Kyoto Protocol. The issue of individual efforts was already discussed in section 2.4, as these notably cover not only mitigation, but also adaptation and provision of support.

2.5.1 Ambition

On ambition, a key discussion revolved around whether to adopt a global long-term emission target or other types of targets in order to turn the temperature limit into a concrete goal. The process under the Bali Roadmap from 2007 to 2012 had included this topic already, but the

²⁷ Ibid., Art. 4.2.

²⁸ Ibid., Art. 4.12.

²⁹ Ibid., Art. 3.

³⁰ Ibid., Art. 4.3.

³¹ Ibid., Art. 4.5.

³² Ibid., Art. 4.3.

³³ Decision 1/CP.21, Adoption of the Paris Agreement, paras 26-28. FCCC/CP/2015/10/Add.1, 29 January 2016.

diplomats at that stage were unable to agree on a long-term global emission goal. The 2015 Group of Seven (G7) meeting in Elmau, Germany, had taken an unexpected step and called for a “decarbonisation of the global economy over the course of this century” and supported setting a global emission target at „the upper end of the latest IPCC recommendation of 40 to 70 % reductions by 2050 compared to 2010“. ³⁴ In the climate negotiations, the EU and AILAC furthermore called for reaching zero net emissions of CO₂ and other long-lived GHGs by the end of the century, while AOSIS and the LDCs called for global emission reductions of at least 70-90% by 2050. Some SIDS also called for full decarbonisation by 2050. By contrast, in particular Arab and other oil exporting countries opposed including any language on decarbonisation or emission neutrality.

The penultimate negotiation draft still included a reference to “reaching greenhouse gas emissions neutrality in the second half of the century”. In the final negotiation hours, compromise language was included which had also been used in the Convention and practically represents a scientific definition of the term “greenhouse gas neutrality”. Parties agreed to “aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, 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, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.” ³⁵

Since almost all of the INDCs had been communicated before COP21, the projected impact on emissions was well known before the conference started. According to an analysis conducted by independent research institutes, the 158 INDCs submitted by the beginning of December have the potential to limit warming to 2.7 °C by 2100, if all governments meet their pledges. ³⁶ Other estimates ranged the likely impact to a projected warming of 3 – 3.5 °C. ³⁷ It was thus apparent from the outset that the Paris Agreement would fall well short of the goal to limit global mean temperature rise to below 2 °C, not to mention 1.5°C. The Parties acknowledge this shortfall in the decision adopting the agreement, which “notes with concern” that the contributions “do not fall within least-cost 2 °C scenarios but rather lead to a projected level of 55 gigatonnes in 2030”. ³⁸

The effectiveness of the Paris Agreement in limiting global warming therefore depends on the quick strengthening of the national contributions. The instrument for such strengthening is an innovative review mechanism (“ratchet”) that aims for Parties to strengthen their contributions every five years (see section 2.9.1 below).

³⁴ Leaders’ Declaration G7 Summit Germany, 7-8 June 2015,

http://www.international.gc.ca/g8/g7_germany_declaration-g7_allemande_declaration.aspx?lang=eng

³⁵ Paris Agreement, Art. 4.1. FCCC/CP/2015/10/Add.1, 29 January 2016.

³⁶ Climate pledges will bring 2.7°C of warming, potential for more action,

<http://climateactiontracker.org/news/253/Climate-pledges-will-bring-2.7C-of-warming-potential-for-more-action.html>

³⁷ For an assessment of the different calculations see Levin, K, T. Fransen (2015): INSIDER: Why Are INDC Studies Reaching Different Temperature Estimates? <http://www.wri.org/blog/2015/11/insider-why-are-indc-studies-reaching-different-temperature-estimates>

³⁸ Decision 1/CP.21, Adoption of the Paris Agreement, para 17. FCCC/CP/2015/10/Add.1, 29 January 2016.

Analyses immediately after Paris seem to indicate that an optimal use of the ratchet mechanism would be sufficient to keep global mean temperatures below 2 °C.³⁹ This would imply, however, that already in 2018 countries communicate strengthened contributions by 2030 and that they commit to longer term targets with substantial emission reductions. Especially if cuts by developing countries are envisaged, this would imply greater financial support from developed countries.

The technological means for staying below 1.5 °C are basically the same as those required to stay below 2 °C – but they would have to be developed faster.⁴⁰ According to this analysis, “negative CO₂ emissions technology“ will be required to reach both temperature goals, referring to technologies that take carbon out of the air. This could mean, in order to achieve such large-scale negative emissions, the usage of technologies that combine biomass energy systems with carbon capture and storage.

2.5.2 Reducing Emissions from Deforestation and Forest Degradation (REDD+)

Deforestation and forest degradation activities are a major source of greenhouse gas (GHG) emissions, being responsible for more than ten per cent of the global GHG emissions. At the same time, forests store large amounts of carbon and provide numerous environmental and social functions. In order to support developing countries in their efforts to reduce emissions from forest activities and to protect and enhance forest carbon stocks, negotiations to establish a dedicated instrument, the REDD+⁴¹ mechanism, had been ongoing since 2005.

In Paris, negotiators dealing with the issue of REDD+ met with their homework done. Technical issues had already been resolved in advance: In 2013, Parties had adopted a package of 7 decisions that resulted in the Warsaw Framework for REDD+.⁴² Three outstanding issues had been further agreed at the SBSTA session in Bonn in June 2015 and were forwarded as draft decisions to the COP, who adopted all three of them. The first decision⁴³ gives additional guidance regarding the information Parties are to provide when informing on how social and environmental safeguards are being addressed and respected when implementing REDD+ activities. The second decision⁴⁴ assists developing countries willing to develop non-market based approaches as an alternative to results-based payments. With the decision on non-carbon benefits⁴⁵, Parties further agreed that while benefits resulting from the implementation

³⁹ Climate Interactive’s “Ratchet Success” scenario yields expected warming by 2100 of 1.8°C (3.2°F), with a range of uncertainty from 0.9 to 2.4°C (1.7 to 4.4°F): <https://www.climateinteractive.org/blog/press-release-with-an-ambitious-review-cycle-offers-to-paris-climate-talks-could-limit-warming-below-2c/>

⁴⁰ This is suggested by an analysis of Climate Analytics: <http://climateanalytics.org/hot-topics/feasibility-of-limiting-warming-to-below-1-5c>

⁴¹ REDD+: Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

⁴² Sterk, W., C. Arens, N. Kreibich, L. Hermwille, F. Mersmann, T. Wehnert (2013): Warsaw Groundhog Days – Old Friends, Positions and Impasses Revisited All Over Again at the 2013 Warsaw Climate Conference. Wuppertal: Wuppertal Institute for Climate, Environment and Energy. <http://wupperinst.org/en/info/details/wi/a/s/ad/2447/>

⁴³ Decision 17/CP.21, Further guidance on ensuring transparency, consistency, comprehensiveness and effectiveness when informing on how all the safeguards referred to in decision 1/CP.16, appendix I, are being addressed and respected. FCCC/CP/2015/10/Add.3, 29 January 2016.

⁴⁴ Decision 16/CP.21, Alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests. FCCC/CP/2015/10/Add.3, 29 January 2016.

⁴⁵ Decision 18/CP.21, Methodological issues related to non-carbon benefits resulting from the implementation of the activities referred to in decision 1/CP.16, paragraph 70. FCCC/CP/2015/10/Add.3, 29 January 2016.

of REDD+ activities are to be incentivized, they do not constitute a requirement for developing countries seeking to receive support for these activities.

With the technical details being settled, the focus of the negotiations in Paris shifted to the role REDD+ would have post-2020: Would REDD+ be explicitly mentioned in the agreement text or would the Paris Agreement be sector-neutral? And if yes, what message would the respective section convey to those already implementing and supporting REDD+ action? Forests were high on the Paris agenda, in particular outside the negotiation rooms: The climate negotiations took off with the announcement by Norway, United Kingdom (UK) and Germany to provide USD 5 billion of finance for REDD+ over the next five years and in numerous side events, practitioners shared experiences made with REDD+ on the ground.

Within the negotiations on the Paris Agreement, Parties built on the outcome of the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) session from October in Bonn. The draft agreement contained several references to REDD+ in numerous sections, including a separate article on REDD+. This article foresaw the establishment of a genuine REDD+ mechanism, a proposal pushed for by the Coalition of Rainforest Nations (CfRN), which supports a market-based approach for REDD+ financing. The REDD+ section also featured Bolivia's proposal to establish a Joint Mitigation and Adaptation Mechanism (JMA) as a non-market based alternative of implementing forest protection activities. In the second week of the negotiations, however, the proposal to establish a new mechanism for REDD+ was dropped and was not reinserted despite several Parties from the CfRN repeatedly calling for it to be part of the final text, as other Parties thought REDD+ could be better operationalized under existing institutions.

The Paris Agreement does therefore not install a new REDD+ mechanism, but instead builds on the Warsaw Framework for REDD+ and the related decisions: Article 5 of the Agreement, which is exclusively devoted to REDD+, states that Parties “are encouraged to take action to implement and support [...] the existing [REDD+] framework”⁴⁶, including through results-based payments. The text also mentions the use of alternative policy approaches, such as joint implementation and adaptation approaches. It further states that “Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases”⁴⁷.

Despite the fact that the wording of this paragraph has been strengthened in the course of the negotiation process (from “are encouraged to take action” to “should take action”), the general wording of the REDD+ article remains rather weak. However, the relevance of the concept is underscored with its explicit mention in the finance section of the COP Decision adopting the Paris Agreement, which contains a paragraph that stresses the importance of providing financial resources for REDD+ activities.⁴⁸

2.5.3 Aviation and Shipping

Emissions from international aviation and shipping activities account for an ever larger share of greenhouse gas emissions globally. If they were a country, they would rank among the world's top 10 emitters and have in recent years grown twice as fast as emissions in general,

⁴⁶ Paris Agreement, Art. 5.2. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁴⁷ Ibid., Art. 5.1.

⁴⁸ Decision 1/CP.21, Adoption of the Paris Agreement, para 54. FCCC/CP/2015/10/Add.1, 29 January 2016.

with projected increases of 250-300 percent until 2050.⁴⁹ Over the years, many attempts have been made to include these ‘bunker fuels’ into the efforts to curb emissions, but without much success. The Kyoto Protocol in Article 2.2 requests that “Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases (...) from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.” However, these organisations have to date not been able to agree on a common approach to deal with this issue.

The first draft of the Paris Agreement, submitted on 5 December 2015, included a comparable formulation in the draft Article 3.20, requesting Parties to pursue their efforts through the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) respectively. It went further, however, suggesting that these organisations should develop “procedures for incorporating emissions from international aviation and marine bunker fuels into low-emission development strategies”. While in particular the EU and the environmental integrity group supported such a clause, China, India, the USA and others were opposed, and it was ultimately dropped from the draft early in the second week of negotiations. The Paris Agreement and the related decision do not mention aviation and marine transport emissions once.

This leaves the issue completely to ICAO and IMO without any guidance from the climate regime – two organisations that are heavily influenced by the respective industries. Because of the growing emissions in this sector, the issue will have to be seriously addressed in the next years if the purpose of the Paris Agreement, enshrined in Article 2, is to be fulfilled. If not, any reduction efforts in the land transport sector might be compromised if there are not equally ambitious actions on international aviation and shipping.

2.5.4 Cooperative Mechanisms

Market-based policy schemes are spreading worldwide. About 40 national or subnational systems for emissions trading or taxing GHG emissions have been implemented to date.⁵⁰ However, “national or subnational” are the key words here, demand for emission reductions from international mechanisms continues to be low. Out of 86 countries that stated that they planned or considered using international market mechanisms in their INDCs, only thirteen emerged as potential buyers, notably excluding the EU, which has been a major proponent of market mechanisms so far.⁵¹ The EU and others nonetheless pushed strongly for the inclusion of market mechanisms in the Paris Agreement. On the other side, leftist Latin American governments strongly resisted including market mechanisms in the new agreement.

To accommodate these countries, the final outcome makes no explicit mention of markets, but enables market-based approaches in several ways. One distinct feature is a new mechanism

⁴⁹ Lee, D. S., L. L. Lim, B. Owen (2013). Bridging the aviation CO2 emissions gap: Why emissions trading is needed. Manchester: Dalton Research Institute / Manchester Metropolitan University. http://www.cate.mmu.ac.uk/wp-content/uploads/Bridging_the_aviation_emissions_gap_010313.pdf

⁵⁰ The World Bank (2015): State and Trends of Carbon Pricing 2015. <http://documents.worldbank.org/curated/en/2015/09/25053834/state-trends-carbon-pricing-2015>

⁵¹ Obergassel, W., M. Gornik (2015): Update on the Role of Market Mechanisms in Intended Nationally Determined Contributions. Wuppertal: Wuppertal Institute for Climate, Environment and Energy (JIKO Policy Brief 04/2015). <http://www.carbon-mechanisms.de/en/2015/update-on-role-of-market-mechanisms-in-intended-nationally-determined-contributions/>

which is to "promote the mitigation of greenhouse gas emissions while fostering sustainable development".⁵² While building on the experiences of the flexible mechanisms of the Kyoto Protocol⁵³, the scope of this mechanism is broader in that it is not restricted to project-type activities. Furthermore, it is to "deliver an overall mitigation in global emissions"⁵⁴, thus going beyond the zero-sum game of the Kyoto Mechanisms to date. The deviation from the Kyoto world is also mirrored in the fact that both developed and developing countries can use the mechanisms, leading to a kind of hybrid between the Clean Development Mechanism and Joint Implementation, respectively. Other features of this mechanism include oversight by the UNFCCC, participation of public as well as private entities, and the prohibition of double counting (i.e. accounting for emission reductions at the same time in the inventories of the host country as well as in the budget of the receiving country).

The decision text tasks the SBSTA with elaborating modalities and procedures for this mechanism.⁵⁵ The decision text names important principles in this context, namely that reductions must be "real, measurable and long-term".⁵⁶ This last attribute was a major bone of contention. An earlier draft of the negotiation text stated that emission reductions must be "permanent", but forest countries strongly pushed for the ultimately accepted formulation in order to open-up the mechanism to land-use and forestry activities. Further, reductions must be additional, relate to yet-to-be defined 'specific scopes' of activities, and be verified and certified by designated operational entities (DOEs)⁵⁷.

Moreover, the Paris Agreement allows Parties to conduct "cooperative approaches."⁵⁸ Under these, mitigation outcomes can be "internationally transferred" and "used" against nationally determined contributions.⁵⁹ The respective article 6.2 names environmental integrity, transparency and robust accounting as the core principles guiding these approaches, while UNFCCC oversight is not foreseen. Instead, the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) is to develop dedicated guidance. These provisions could open many ways of cooperation, for example the transfer of units stemming from bilateral schemes such as the Japanese Joint Crediting Mechanism, but also to emissions trading between Parties. However, these opportunities hinge on the yet-to-be-developed guidance.

2.6 Adaptation

With many developing countries already experiencing impacts of climate change, for many years, they have made efforts to raise the status of adaptation in the climate regime, which has historically been put in second place by developed countries.⁶⁰ In this regard, the outcome of

⁵² Paris Agreement, Art. 6.4. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁵³ Decision 1/CP.21, Adoption of the Paris Agreement, para. 37f. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁵⁴ Paris Agreement, Art. 6.4d. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁵⁵ Decision 1/CP.21, Adoption of the Paris Agreement, para. 38. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁵⁶ Ibid., para. 37b.

⁵⁷ Ibid., paras 37c-d.

⁵⁸ Paris Agreement, Art. 6.2, 6.3. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁵⁹ Ibid.

⁶⁰ Ott, H., W. Obergassel, C. Arens, L. Hermwille, F. Mersmann, H. Wang-Helmreich (2014): Climate policy: road work and new horizons – an assessment of the UNFCCC process from Lima to Paris and beyond. In: Environmental Liability, Vol. 22, No. 6, pp. 223-238.
http://wupperinst.org/uploads/tx_wupperinst/Post_Lima_Pre_Paris.pdf

climate negotiations in Paris can be considered a huge success for developing country Parties. Never before has greater importance been placed on national as well as global action to help people adapt to climate change impacts than in the Paris Agreement: Recognizing that adaptation “is a key component of and makes a contribution to the long-term global response to climate change to protect people, livelihoods and ecosystems”⁶¹, the Paris Agreement furthers the participation of all countries in adaptation activities and requests all Parties to engage in adaptation planning processes and the implementation of actions.⁶² According to the Agreement, all adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems.⁶³

Article 7.1 of the Agreement establishes a long-term vision on adaptation. This issue was on the agenda of many developing countries, who aimed at ensuring parity between mitigation and adaptation in the agreement. Developed countries, by contrast, had put forward a proposal for no text on this issue. The COP finally decided on a global goal to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change to ensure “an adequate adaptation response in the context of the temperature goal referred to in Article 2”⁶⁴. Parties explicitly recognize that the “current need for adaptation is significant and that greater levels of mitigation can reduce the need for additional adaptation efforts”⁶⁵ as well as the associated costs. The explicit link to the temperature goal is important, as it acknowledges that global needs for adaptation highly depend on the success of mitigation activities.

In parallel to the contribution cycles for mitigation, action on adaptation is to be reviewed and accelerated every five years. This was welcomed warmly by many developing country Parties as well as by observer organisations. Most Intendend Nationally Determined Contributions (INDCs) submitted in the run-up to Paris by developing countries already included information regarding countries’ adaptation priorities, implementation and support needs as well as plans and actions. Offering flexibility regarding timing and methods for communicating information, the Paris Agreement requests all Parties to compile information on these topics in an adaptation communication, which is to be recorded in a public registry maintained by the secretariat of the UNFCCC and updated periodically.⁶⁶ National adaptation communications will be part of the global stocktake (see section 2.9.1), thus offering opportunities to review the overall progress made in achieving the global goal on adaptation and to spiral up adaptation action and support.⁶⁷

Increased adaptation finance was a top priority in the negotiations for many developing country Parties. The need for substantial adaptation finance is recognized in the Paris Agreement, which calls for a balance between adaptation and mitigation finance and support.⁶⁸ Though the call for balanced allocation is not new, in practice, developed countries have so far put adaptation finance in second place after mitigation finance. Furthermore, the

⁶¹ Paris Agreement, Art. 7.2. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁶² Ibid., Art. 7.9.

⁶³ Ibid., Art. 7.5.

⁶⁴ Ibid., Art. 7.1.

⁶⁵ Ibid., Art. 7.4.

⁶⁶ Ibid., Art. 7.10, 7.11 and 7.12.

⁶⁷ Ibid., Art. 7.14.

⁶⁸ Ibid., Art. 9.4 and 10.6.

Agreement recognizes the need for public and grant-based resources for adaptation as well as the special needs of the most vulnerable nations.⁶⁹ However, while the Agreement states that “[c]ontinuous and enhanced international support shall be provided to developing country Parties”⁷⁰ and recognizes the importance of support for and international cooperation on enhanced adaptation efforts⁷¹, it does not include a collective, quantified goal for adaptation finance, as had been demanded by developing countries.

Workstream 2 (WS2) of the ADP was originally designated only to increase the near-term (pre-2020) ambition of mitigation activities, particularly by developed countries.⁷² Developing countries, however, especially those who are particularly vulnerable, fought hard for the recognition of adaptation under WS2. Among other issues, this was seen as a means to underline the importance of adaptation and was considered helpful to push climate change adaptation even higher on national agendas. In the end, despite hesitation by developed countries, developing countries were successful in their attempt to establish another institution under WS2 which will focus on adaptation: Thus, in Paris, Parties launched a technical examination process (TEP) on adaptation in the period 2016-2020 complementary to the existing mitigation TEP. This process will focus on lesson sharing and identifying opportunities for implementation and cooperative action and will thus increase countries’ ability to adapt to climate change.⁷³

Like the mitigation TEP, the adaptation TEP will be organized jointly by the Subsidiary Body for Implementation (SBI) and the Subsidiary Body for Scientific and Technological Advice (SBSTA), and conducted by the Adaptation Committee. It will take into account the process, modalities, outputs, outcomes and lessons learned from the TEP on mitigation. The goal of the new TEP will be the identification of concrete opportunities for strengthening resilience, reducing vulnerabilities and increasing the understanding and implementation of adaptation actions. To support the TEP on adaptation, the secretariat is to organize regular technical expert meetings (TEMs) and to annually prepare a technical paper.⁷⁴

Apart from the Paris Agreement and associated decisions, on-going business regarding adaptation centred on the Adaptation Committee, the Buenos Aires Programme of Work on Adaptation and Response Measures, the Nairobi Work Programme and the Adaptation Fund. Thus, the report of the Adaptation Committee resulted in COP decisions which, inter alia, invite the Intergovernmental Panel on Climate Change (IPCC) to enhance outreach activities that facilitate policymakers’ understanding of the impact of different levels of warming on adaptation planning and actions.⁷⁵ Furthermore, Parties are invited to take into account climate risk screening of national development strategies and policies aimed at enhancing

⁶⁹ Ibid., Art. 9.4.

⁷⁰ Ibid., Art. 7.13.

⁷¹ Ibid., Art. 7.6 and 7.7.

⁷² See also Ott, H., W. Obergassel, C. Arens, L. Hermwille, F. Mersmann, H. Wang-Helmreich (2014): Climate policy: road work and new horizons – an assessment of the UNFCCC process from Lima to Paris and beyond. In: *Environmental Liability*, Vol. 22, No. 6, pp. 223-238.

http://wupperinst.org/uploads/tx_wupperinst/Post_Lima_Pre_Paris.pdf

⁷³ Decision 1/CP.21, Adoption of the Paris Agreement, paras 124, 125 and 127. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁷⁴ Ibid., paras 125, 126, 128 and 129.

⁷⁵ Decision 3/CP.21, Report of the Adaptation Committee, para 4. FCCC/CP/2015/10/Add.2, 29 January 2016.

livelihoods and economic diversification to enhance climate resilience.⁷⁶ Moreover, the COP requests the Technology Executive Committee (TEC) to consider how it can help Parties to align their technology needs assessments (TNAs) with their national adaptation plans (NAPs). To this end, the TEC is to collaborate with the Climate Technology Centre and Network (CTCN), the Adaptation Committee and the Least Developed Countries Expert Group (LEG).⁷⁷ Decisions on the process to assess progress made regarding the formulation and implementation of national adaptation plans (NAPs) were made separately.⁷⁸ Finally, the COP requests the Adaptation Committee to further strengthen cooperation with the Standing Committee on Finance (SCF) and other constituted bodies under the Convention to enhance coherence and collaboration regarding adaptation finance.⁷⁹ The Committee's recommendation for a closer cooperation with the Finance Mechanism had been discussed in the Subsidiary Body for Implementation (SBI) before but had still been rejected by the SBI in Lima at COP 20.⁸⁰

In the decision adopting the Paris Agreement, the COP, *inter alia*, requests the Adaptation Committee and the LEG to jointly develop modalities to recognize the adaptation efforts of developing country Parties, make recommendations to review in 2017 the work of adaptation-related institutional arrangements under the Convention, and to consider methodologies for assessing adaptation needs. Furthermore, the Adaptation Committee and the LEG, in collaboration with the Standing Committee on Finance (SCF) and other relevant institutions, shall develop methodologies and make recommendations on taking the necessary steps to facilitate the mobilization of support for adaptation in developing countries and reviewing the adequacy and effectiveness of adaptation and support.⁸¹

Concerning the implementation of the Buenos Aires Programme of Work on Adaptation and Response Measures (Decision 1/CP.10), Parties (Argentina for the G77/China, Ghana for the African Group, Saudi Arabia) criticised that during negotiations, discussions in first week's contact group strongly depended on developments in negotiations under the ADP.⁸² The forum is to provide a platform to allow Parties to share information, experiences, case studies, best practices and views, and to facilitate assessment and analysis of the impact of the implementation of response measures. Hereby, it supports the finding of recommendations for specific actions and enhances the capacity of Parties, in particular developing country Parties, to deal with the impact of the implementation of response measures.

The final COP decision focused on continuing and improving the forum. To advance the work of the improved forum, the Subsidiary Bodies are to constitute ad hoc technical expert groups with balanced regional representation of Parties to elaborate on the technical work.

⁷⁶ *Ibid.*, para 6.

⁷⁷ *Ibid.*, para 5.

⁷⁸ Decision 4/CP.21, National adaptation plans. FCCC/CP/2015/10/Add.2, 29 January 2016.

⁷⁹ Decision 3/CP.21, Report of the Adaptation Committee, para 7. FCCC/CP/2015/10/Add.2, 29 January 2016.

⁸⁰ Ott, H., W. Obergassel, C. Arens, L. Hermwille, F. Mersmann, H. Wang-Helmreich (2014): Climate policy: road work and new horizons – an assessment of the UNFCCC process from Lima to Paris and beyond. In: *Environmental Liability*, Vol. 22, No. 6, pp. 223-238.
http://wupperinst.org/uploads/tx_wupperinst/Post_Lima_Pre_Paris.pdf.

⁸¹ Decision 1/CP.21, Adoption of the Paris Agreement, paras 41-45. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁸² IISD Reporting Services (2015): *Earth Negotiations Bulletin*, Vol. 12, No. 663. Summary of the Paris Climate Change Conference: 29 November -13 December 2015. Paris: IISD Reporting Services.
<http://www.iisd.ca/download/pdf/enb12663e.pdf>

Furthermore, the COP adopted a work programme, which comprises the areas of economic diversification and transformation, just transition of the work force, and the creation of decent work and quality jobs. The implementation of the work programme shall address the needs of all Parties, in particular, developing country Parties, and shall be informed, inter alia, by the assessment and analysis of impacts. The work programme is to be reviewed by the SBs every three years. Finally, the COP requested the Secretariat to prepare, subject to the availability of financial resources, a guidance document to assist developing countries to assess the impact of the implementation of response measures as well as technical materials to assist developing countries on their economic diversification initiatives.⁸³

In the context of the Nairobi Work Programme (NWP), the Lima Adaptation Knowledge Initiative (LAKI)'s aims are the identification and prioritization of knowledge gaps at the sub-regional level and to fill these gaps. The progress of LAKI in various sub-regions was stressed by the UN Environment Programme as well as by Botswana and Sri Lanka who also welcomed LAKI's future workshops.⁸⁴ The information provided by LAKI were also recognised by the SBSTA in the conclusions of the NWP which were adopted on Friday, 4th December. In the conclusions, the SBSTA, among other issues, also noted with appreciation the reports provided on good practices and lessons learned in adaptation planning and progress on implementing activities under the NWP, and the information provided by the Adaptation Committee and the Least Developed Countries Expert Group (LEG). Moreover, the SBSTA welcomed the launch of the Adaptation Knowledge Portal and recognized its role in enhancing the dissemination of knowledge developed under the NWP, the Adaptation Committee and the WIM (Warsaw International Mechanism on Loss and Damage associated with Climate Change Impacts) Executive Committee.⁸⁵

On Wednesday, 2 December, Adaptation Fund Board Chair Hans Olav Ibrekk (Norway) reported that the fund was highly in demand and delivered effectively on its mandate. However, he feared that the sustainability of the Fund was "in danger"⁸⁶. The share of proceeds from Clean Development Mechanism (CDM) activities for the Fund have been declining substantially due to extremely low prices for Certified Emission Reductions (CERs) causing financial difficulties for the Fund. The report of the Adaptation Fund Board as well as a decision were adopted by the COP on Sunday, 13 December. The decision includes the CMP's request to the Adaptation Fund Board to continue simplifying accreditation procedures for national implementing entities. Furthermore, the CMP urged Parties to deliver on their announced financial contributions for the fundraising target of the Adaptation Fund Board as soon as possible and encouraged voluntary support for resource mobilization of the Adaptation Fund Board in addition to the share of proceeds from CDM activities.⁸⁷

⁸³ Decision 11/CP.21, Forum and work programme on the impact of the implementation of response measures. FCCC/CP/2015/10/Add.2, 29 January 2016.

⁸⁴ IISD Reporting Services (2015): Earth Negotiations Bulletin, Vol. 12, No. 663. Summary of the Paris Climate Change Conference: 29 November -13 December 2015. Paris: IISD Reporting Services. <http://www.iisd.ca/download/pdf/enb12663e.pdf>

⁸⁵ Draft conclusions proposed by the Chair, Nairobi work programme on impacts, vulnerability and adaptation to climate change, FCCC/SBSTA/2015/L.19.

⁸⁶ IISD Reporting Services (2015): Earth Negotiations Bulletin, Vol. 12, No. 663. Summary of the Paris Climate Change Conference: 29 November -13 December 2015. Paris: IISD Reporting Services. <http://www.iisd.ca/download/pdf/enb12663e.pdf>

⁸⁷ Decision 1/CMP.11, Report of the Adaptation Fund Board. FCCC/KP/CMP/2015/8/Add.1, 29 January 2016.

2.7 Loss and Damage

Loss and damage refers to adverse effects of climate change which cannot be adapted to. The concept has been a contentious issue of the climate change negotiations for many years. Developing countries, in particular LDCs, as well as other countries particularly vulnerable to the impacts of climate change, have been fighting strongly for its recognition. This was achieved implicitly with respective language in the preamble of the COP decisions in Doha in 2012, and explicitly by the installation of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (WIM) one year later. Despite these achievements, the issue of loss and damage had not progressed significantly since. Due to the late nomination of members, the Executive Committee of the WIM held its first meeting not until September 2015 and the implementation of the workplan has just begun. In Paris, the COP noted “with concern” the limited progress made and agreed to extend the member’s terms of office. Parties further urged the Executive Committee to explore modalities of work to fulfil its mandate.⁸⁸

Against the backdrop of the limited progress, the question whether loss and damage would be a part of the Paris Agreement was key. In Paris, discussions were highly politicised and most deliberations on loss and damage took place informally behind closed doors. The recognition of loss and damage as a part of the Paris Agreement on the one hand and the question of liability and compensation on the other were the crunch issues that dominated the negotiations on this issue from the very beginning. In the course of 2015, developing countries had already made clear that a Paris Agreement without reference to loss and damage was no option for them. The Umbrella Group, by contrast, called for the respective article of the draft agreement to be removed, mainly because developing countries had called for compensation language in the text, causing fears of liability on the side of developed countries. By recognizing that this was seen as a no-go by developed countries, the group of G77/China in June tabled an alternative proposal that made no reference to compensation. Developed countries, however, continued calling for the issue to be addressed outside the agreement text.

In the first week of the Paris negotiations, no fundamental progress was achieved and when the draft agreement was forwarded to ministers, the option to exclude loss and damage from the agreement was still on the table – as was its inclusion, either as a separate article or in the adaptation section. What prevented developed countries from agreeing on the inclusion of loss and damage in the Paris Agreement continued to be the fears of liability and compensation, despite the fact that none of the terms was mentioned in the draft agreement. To developed countries, the concept of loss and damage as such is associated with the notion of liability and compensation, even without these terms being explicitly alluded to, as Todd Stern, US special envoy for climate change, made clear: “There is one thing we don’t accept and won’t accept in this agreement and that is the *notion* that there should be liability and compensation for loss and damage. That’s a line that we can’t cross.”⁸⁹ This position was shared by several other developed countries. Against this backdrop, the USA and other developed countries called for the insertion of a clause that ensured that the inclusion of loss and damage under the

⁸⁸ Decision 2/CP.21, The Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts. FCCC/CP/2015/10/Add.2, 29 January 2016.

⁸⁹ United States of America (2015): Press briefing with Special Envoy for Climate Change Todd D. Stern, <http://unfccc6.meta-fusion.com/cop21/events/2015-12-04-14-30-united-states-of-america> . 13min (emphasis added).

Paris Agreement would not provide any basis for liability and compensation. In the end, developing countries agreed to such a clause, which, however, is not contained in the agreement itself, as the US had originally pushed for, but in the accompanying COP decision. In paragraph 51 of the decision the COP “*agrees* that Article 8 of the Agreement [on loss and damage] does not involve or provide a basis for any liability or compensation.”⁹⁰ In exchange, developing countries were able to anchor Article 8 as a separate article on loss and damage in the Paris Agreement.

This article underscores the relevance of dealing with loss and damage and lists eight areas of cooperation to enhance understanding, action and support including early warning systems, slow onset events and non-economic losses. The Paris Agreement does not create a new mechanism, as originally proposed by developing countries, but states that the Warsaw Mechanism for Loss and Damage (WIM) is to operate under the governing body of the new agreement. It further states that the WIM “*may be enhanced and strengthened*”⁹¹ in the future and continued, following a review in 2016, as contained in the COP decision adopting the agreement.⁹² The decision further requests the Executive Committee of the WIM to establish a task force to develop recommendations for dealing with climate change related displacement.⁹³ This reflects the call from developing countries for the installation of a climate change displacement coordination facility; however, without giving it the institutional strength G77/China had called for, who wanted the facility to be installed by the governing body of the agreement. Parties also agreed on the installation of a clearinghouse for risk transfer,⁹⁴ as had been proposed by developed countries. This reflects recent initiatives outside the UNFCCC, such as the G7 Climate Risk Insurance Initiative launched in June, which is to cover 300 million people in developing countries with a climate risk insurance.

However, while the enhancement of support for dealing with loss and damage is part of the agreement, there is no explicit reference to loss and damage in the finance section. A paragraph contained in the draft version of the agreement forwarded to Ministers after the end of the first week, which had called for the provision of support for addressing loss and damage, was ultimately deleted. Similarly, a paragraph clearly indicating that some of the impacts caused by climate change go beyond the limits of adaptation, which was included in the adaptation section of the draft agreement until the very end of the negotiations, is not contained in the final version of the Paris Agreement. This paragraph would have underscored the recognition of loss and damage as a third pillar next to mitigation and adaptation.

2.8 Means of Implementation

For developing countries to effectively implement their nationally determined contributions, industrialised countries will have to offer assistance in various forms. The basis for this obligation reaches back as far as the original text of the Convention (UNFCCC Art. 4). Support to developing countries in general should come in the form of finance, technology development and transfer, and capacity building. Bearing in mind that especially finance and technology

⁹⁰ Decision 1/CP.21, Adoption of the Paris Agreement, para 51. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁹¹ Paris Agreement, Art. 8.2. FCCC/CP/2015/10/Add.1, 29 January 2016 (emphasis added).

⁹² Decision 1/CP.21, Adoption of the Paris Agreement, para 47. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁹³ Ibid., para 49.

⁹⁴ Ibid., para 48.

are "hard currency" not only in the climate realm, but have notable implications for country budgets, the history of the COPs has seen fights over this at almost every session.

A large portion of the Paris Agreement contains provisions for support to developing countries, albeit of varying strength: Article 9 deals with finance, Article 10 with technology development and transfer, Articles 11 and 12 with capacity building and education. Article 13 does not only contain provisions for transparency of mitigation efforts, but also of support offered and received. The decision on the adoption of the Paris Agreement contains a number of specifications to the articles mentioned above.

2.8.1 Finance

Fights over provisions on finance within the international climate regime have always threatened to "break" the outcome of the negotiations as a whole, and Paris was no different in this regard.

Shortly before the start of COP21, the Organization for Economic Co-operation and Development (OECD) together with the Climate Policy Initiative had issued a report on the mobilisation of climate finance by developed countries from 2013 to 2014, which calculated a sum of 62 billion USD in 2014, up from 52 billion in 2013.⁹⁵ In Copenhagen, industrialised countries had pledged to mobilise USD 100 billion in climate finance from a number of sources in 2020 and beyond, but the road to reach that goal had always been unclear. Therefore, being more than halfway there was presented as a major success by many industrialised countries, including France, early in the first week of the Paris summit.

However, developing countries were less positive. Especially India voiced serious concerns on the methodology and transparency of the report, which was mainly grounded within the accounting system of the Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD-DAC). The Indian Ministry of Economic Affairs published a paper casting serious doubts on the figures offered by the OECD report, and Indian officials at the Paris summit suggested that the true figure could be as low as 2.2 billion USD.⁹⁶

It was clear that finance would once more be a major stumbling stone for an agreement. A spin-off group on finance was formed, but every report back to the plenary in the following two weeks reiterated major difficulties in finding common ground. While partial agreements could be formed, such as that provision of financial resources should aim for a balance between mitigation and adaptation, most content remained completely unclear. A major point of contention was the question of how to codify possible financial contributions by developing countries, which was demanded by developed countries but firmly opposed by India, China, and a number of other developing countries. Developing countries, for their part, demanded that industrialised countries should provide a clear roadmap for how they intended to fulfil the

⁹⁵ OECD (2015): "Climate finance in 2013-14 and the USD 100 billion goal", a report by the Organisation for Economic Co-operation and Development (OECD) in collaboration with Climate Policy Initiative (CPI).

⁹⁶ Paris climate talks: Indian officials accuse OECD of exaggerating climate aid, <http://www.theguardian.com/environment/2015/dec/02/paris-climate-talks-indian-officials-accuse-rich-countries-of-exaggerating-climate-aid>

USD 100 billion pledge, as well as firm commitments to increase the level of funding after 2020. They also demanded establishment of an iterative finance cycle to regularly evaluate and upscale the provision of finance by developed countries. After unsuccessful negotiations over the first week – the negotiation text still contained 107 bracketed passages and 18 options – finance was relegated to the ministerial level in the hopes that a decision could be formed on a higher political level.

COP President Fabius announced that an *indaba* on support would be formed, with the finance high on the list of issues that needed to be resolved. On Thursday, 10 December, Parties had managed to streamline the Agreement text down to only nine brackets, seven of which would further specify and strengthen language on the provision of financial resources, such as "predictable", "sustained", or "scaled-up", in the first paragraph.⁹⁷ At that point, the draft article on finance (then Article 6), still contained a clear reference to a progression from the USD 100 billion mobilization goal of developed countries.

According to rumours in the corridors, more or less continuous informal negotiations took place until Saturday afternoon, in order to find common ground on finance in the Paris Agreement. The text finally provided to the public on Saturday, 12 December, at 13.30 (and adopted without changes in the closing plenary of the COP) had lost all qualifiers to the provision of climate finance in its first paragraph. It now only stipulates that

"Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention."⁹⁸

The Paris Agreement also encourages other Parties to "provide or continue to provide such support voluntarily".⁹⁹ This poses no additional binding obligation on developing countries, but recognises the growing level of South-South financial support and partly accommodates developed countries' desire to broaden the donor base.

The Agreement text has also lost a direct reference to the USD 100 billion mobilisation goal, or, in fact, any language that would imply an obligation to scale up climate finance from current levels. Financial obligations had been a clear red line for the USA, as this would have required ratification by the US Congress. As Congress had made it abundantly clear that it would decline any climate treaty, the USA would have been unable to join the Agreement.

Some clearer language could be retained in the text of the decision adopting the agreement. In paragraph 53 of the COP decision, Parties decided that

"developed countries intend to continue their existing collective mobilization goal through 2025 [...]; prior to 2025 the [CMA] shall set a new collective quantified goal from a floor of USD 100 billion per year..."¹⁰⁰

⁹⁷ See draft text issued 10 December, 2015, 21.30.

⁹⁸ Paris Agreement, Art. 9.1. FCCC/CP/2015/10/Add.1, 29 January 2016.

⁹⁹ Ibid., Art. 9.2.

¹⁰⁰ Decision 1/CP.21, Adoption of the Paris Agreement, para 53. FCCC/CP/2015/10/Add.1, 29 January 2016.

With this, developed countries have committed themselves again to a (non-binding) finance goal. But with the second half of the paragraph, it is now clear that the promised USD 100 billion per year cannot be the ceiling of finance commitment, but rather have to be a floor to scale up from before 2025. However, the paragraph may prove to be a double-edged sword for the coming negotiations, as the formulation of a "collective quantified goal" will once more open up fights over financing commitments by at least the economically stronger developing countries.

The decision also urges developed countries to develop a "concrete roadmap" for achieving the USD 100 billion pledge, and decides to conduct a facilitative dialogue at COP 22 in 2016 to assess progress and identify opportunities to enhance support.¹⁰¹

2.8.2 Technology

A crucial aspect to effective implementation of developing countries' nationally determined contributions is the access to technologies that make a shift away from fossil-based infrastructures possible. While always recognized, the issue of technology development and transfer had been out of the limelight of negotiations for some time, and had been relegated to the work of the Subsidiary Bodies. Thus, the further development of the Convention's Technology Mechanism, including the work of the Technology Executive Committee (TEC), and the development and operationalisation of the Climate Technology Centre and Network (CTCN) had been of rather low profile in recent years.

It had been clear from earlier drafts of the text developed in the sessions of the ADP that the Paris Agreement would contain provisions on technology development and transfer.¹⁰² However, at least in the early days of the Paris conference, the topic unexpectedly gained some traction. A spin-off group on technology issues was created already on 29 November, with Parties proposing numerous amendments and text options immediately. The LMDC group proposed setting a goal for technology transfer by developed countries including associated finance. Especially for India, this also meant provision of finance to overcome the barriers of intellectual property rights (IPRs) of environmentally sound technologies. IPRs had long been a controversial issue in the negotiations on technology cooperation. Developed countries have always strongly opposed any reference to IPRs. The African group tabled a bridging proposal on a technology framework under the Paris Agreement. While the proposal was apparently met with general approval, many amendments were proposed and discussed. In the end, it was agreed to forward the proposal in its original form.

Negotiations on technology transfer seem to have moved fairly quickly and without much publicity in the second week. The text of 10 December contains neither brackets nor options, and did not change in Article 10 of the final agreement text. As a main achievement of developing countries, it establishes the above-mentioned technology framework in order to provide guidance to the Technology Mechanism, which will now also serve the CMA. The

¹⁰¹ Ibid., paras 114f. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹⁰² Ad Hoc Working Group on the Durban Platform for Enhanced Action, Second session, part eleven, 19-23 October 2015, Bonn, Germany: Draft agreement and draft decision on workstreams 1 and 2 of the Ad Hoc Working Group on the Durban Platform for Enhanced Action, Work of the ADP contact group, Version of 23 October 2015@23:30hrs, Draft Agreement Art. 7 and Draft Decision paras 48ff.

technology framework also serves to pursue the long-term vision of all Parties set out in paragraph one of Art. 10, citing

"the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions."¹⁰³

The Paris decision requests the SBSTA to further define the technology framework starting at its next session in May 2016. Topics that should be taken into account include undertaking and updating technology needs assessments (TNAs) of developing countries, scaling-up of technical and financial support for TNAs, assessing technologies that are "ready for transfer", and the enhancement of enabling environments as well as the removal of barriers to technology transfer.

Another success of developing countries is the establishment of a clear link between technology and finance. As set out in paragraph five of Article 10, the acceleration, encouragement, and enablement of innovation is not only to be supported through the Technology Mechanism, but also through financial means by the Financial Mechanism of the Convention.¹⁰⁴ This link to the Financial Mechanism had been a matter of debate between developing and developed countries for a long time.

IPRs predictably do not appear in the Agreement text. The mention of IPRs has always been a red line issue especially for the US, and it cannot be expected that this will change in the future. However, the link between technology and finance at least acknowledges that finance could be needed for the acquisition of copy-righted technologies. If this will be sufficient to close the chapter on IPRs again remains to be seen.

The decision text decides to further strengthen the Technology Mechanism, and reiterates that its institutions (i.e. TEC and CTCN) shall report to the future CMA. There will now be a periodic assessment of the Technology Mechanism's effectiveness in supporting the implementation of the Paris Agreement. The Subsidiary Body for Implementation is tasked to elaborate scope and modalities for this assessment, starting at its next session.¹⁰⁵

2.8.3 Capacity Building

Capacity building had in the past been another low-profile element of the UN climate regime's support structure. While industrialized countries had always recognized capacity building to be an essential element especially for least developed countries, developing countries had never managed to bring the issue on top of the agenda. Consistent progress had been made over the last years, with the Durban Forum on Capacity-Building, a multi-stakeholder forum for sharing ideas and lessons learned, being the most visible outcome in 2011.

The Paris Agreement recognizes the importance of the issue, but the text of the Agreement itself is relatively weak and non-binding. However, the accompanying decision text holds a

¹⁰³ Paris Agreement, Art. 10, para 1. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹⁰⁴ Ibid., Art. 10.5.

¹⁰⁵ Decision 1/CP.21, Adoption of the Paris Agreement, paras 65-70. FCCC/CP/2015/10/Add.1, 29 January 2016.

negotiation success for developing countries: the Paris Committee on Capacity-building is created, with an aim to

"address gaps and needs, both current and emerging, in implementing capacity-building in developing country Parties and further enhancing capacity-building efforts, including with regard to coherence and coordination in capacity-building activities under the Convention."¹⁰⁶

The Committee will follow a work plan in the period of 2016-2020, with a number of different issues related to the existing capacity building framework under the Convention, as well as capacity gaps that should be addressed by Parties. Each year, the Committee will focus on a special topic, and hold annual in-session meetings where these areas can be addressed. The SBI is tasked to develop terms of reference for the newly-established body to be approved by COP 22 in 2016.

2.9 Three Elements for Increasing Ambition over Time

Since the achievement of the contributions is not mandatory (see section 2.4, above), the Paris agreement relies on three elements that provide transparency and create political moments that impose a threat of high political costs for those Parties that do not keep up with their pledges: through periodic global stocktakes, through a robust transparency framework, and through a facilitative compliance mechanism.

2.9.1 Global Stocktake and Contribution Cycle

One of the central questions of the negotiation process was whether or not Parties' contributions should be assessed internationally before adoption. Back in Lima, 2014 at COP 20, Parties could not agree to such an international ex-ante assessment. In particular the LMDCs had rejected any international assessment of developing countries' intended contributions, citing reasons of sovereignty. Before Paris, there was therefore only a technical paper by the Secretariat assessing the global aggregate level of mitigation ambition of the INDCs, but no discussion of individual INDCs. The question therefore was whether there should be an international assessment post-Paris, and when such a process should start, in particular whether it would already apply to the first implementation period of the agreement.

A related question was the frequency of contribution cycles. Many INDCs have 2030 as target date, some have 2025, and some have yet other dates. The question was therefore whether and how quickly countries, in particular those with 2030 and later target dates, would need to reconsider their contributions in the coming years. Given the low level of ambition of most INDCs, establishing no process to reconsider them would have put the temperature limit out of reach for once and all.

A group of countries including the African Group, AILAC, Brazil, the EU, Indonesia, Mexico, the Philippines, SIDS and the USA strongly supported the establishment of an "ambition mechanism" to regularly review and strengthen contributions every five years. By contrast,

¹⁰⁶ Ibid., para 71.

the LMDCs again rejected ex-ante reviews of contributions, five-yearly cycles and enshrining an obligation to strengthen contributions as result of such a process.

Agreement was made possible by broadening the scope of the cycle to include not only mitigation, but also adaptation and provision of support.¹⁰⁷ This provision meets the demand of in particular the LMDCs that mitigation ambition and the provision of support need to be considered together. Parties thus agreed that contributions shall be communicated every five years. The CMA shall periodically take stock of the implementation of the agreement to assess the collective progress. The stocktake is to be comprehensive, including “mitigation, adaptation, means of implementation and support, and in the light of equity and the best available science.” This “global stocktake” is to take place in 2023 and every five years thereafter. The outcome of the stocktake is to “inform” Parties in updating and enhancing their actions and support.¹⁰⁸

The 2023 date for the first stocktake is due to the fact that the agreement’s provisions can only become effective once the agreement enters into force, which will probably take several years. To jumpstart the five-year cycle, the accompanying COP decision therefore provides for a “facilitative dialogue among Parties in 2018 to take stock of the collective efforts (...) and to inform the preparation of nationally determined contributions”.¹⁰⁹ In conjunction with this initial stocktake, the IPCC is invited to provide a special report on the impacts of global warming of 1.5 °C and related global emission pathways in 2018.¹¹⁰ Finally, Parties whose contributions contain a time frame up to 2025 are to communicate a new contribution by 2020 and every five years thereafter, while Parties whose contributions have a time frame up to 2030 are to “communicate or update” these contributions by 2020 and every five years thereafter.¹¹¹

2.9.2 Transparency Framework

Differentiation between developing and developed countries was the core controversy in the negotiations on how to track whether Parties are implementing their contributions. So far, reporting and review provisions have differed substantially between the two groups. Industrialised countries and AILAC demanded to move towards a common framework that would generally be applicable to all, but with flexibility on the timing and detail in the reporting reflecting different capacities, and with support to developing countries. By contrast, many developing countries highlighted their low technical capacity and therefore opposed a “one size fits all” approach and demanded to keep a clear differentiation between developed and developing countries. They also argued that a new system with increased requirements for developing countries had been agreed only five years earlier in Cancún¹¹² but not yet been

¹⁰⁷ Bals, C., S. Kreft, L. Weischer (2016): Wendepunkt auf dem Weg in eine neue Epoche der globalen Klima- und Energiepolitik. Die Ergebnisse des Pariser Klimagipfels COP 21. Bonn/Berlin: Germanwatch. <https://germanwatch.org/de/11492>

¹⁰⁸ Paris Agreement, Art. 14. FCCC/CP/2015/10/Add.1, Advance version, 29 January 2016.

¹⁰⁹ Decision 1/CP.21, Adoption of the Paris Agreement, para 20. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹¹⁰ Ibid., para 21.

¹¹¹ Ibid., paras 23f.

¹¹² See Sterk, W., C. Arens, U. Eichhorst, F. Mersmann, H. Wang-Helmreich (2011): Processed, Refried – Little Substance Added. Cancún Climate Conference Keeps United Nations Process Alive but Raises more Questions than It Answers. Wuppertal: Wuppertal Institute for Climate, Environment, Energy. <http://wupperinst.org/en/publications/details/wi/a/s/ad/1359/>

made operational, and that therefore this system should first be implemented before moving to a new system.

The final agreement makes no fundamental distinction between developed and developing countries and provides that all Parties shall account for their contributions.¹¹³ Detailed guidance is to be developed in the coming years, which is to make sure that Parties account for their contributions in accordance with methodologies and common metrics assessed by the IPCC, ensure methodological consistency, and strive to include all categories of emissions or removals. This guidance is to be applied to the second and following contributions under the Paris Agreement; Parties may individually decide to also apply the guidance to their first contributions.¹¹⁴

The agreement also establishes an “enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties’ different capacities”.¹¹⁵ Whereas the aim of the framework for *transparency of action* is “to provide a clear understanding” of climate action, and to track progress, the aim of the framework for *transparency of support* is “to provide clarity on support provided and received”, and to provide an overview of aggregate financial support. The transparency framework also is to inform the global stocktake.¹¹⁶

The framework “shall provide flexibility in the implementation of the provisions of this Article to those developing country Parties that need it in the light of their capacities.”¹¹⁷ The framework is to build on the existing reporting and review arrangements under the Convention and is to “be implemented in a facilitative, non-intrusive, non-punitive manner, respectful of national sovereignty, and avoid placing undue burden on Parties”.¹¹⁸

In detail, Parties shall regularly provide national greenhouse gas inventories prepared by using IPCC good practice guidance as well as information necessary to track progress made in implementing and achieving contributions.¹¹⁹ Except for SIDS and LDCs, all Parties are required to submit this information at least every two years.¹²⁰ To support developing countries in complying with the Agreement’s transparency provisions, the implementing decision establishes a “Capacity-building Initiative for Transparency”, to be supported by the Global Environment Facility.¹²¹

The transparency framework also requires developed country Parties to report on support provided – in financial, technology and capacity building terms. Developing country Parties providing support “should” do the same, but are not bound by the Agreement.¹²² In addition, Parties should provide information on climate impacts and adaptation.¹²³

¹¹³ Paris Agreement, Art. 4.13. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹¹⁴ Decision 1/CP.21, Adoption of the Paris Agreement, paras 31f. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹¹⁵ Paris Agreement, Art. 13.1. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹¹⁶ Ibid., Art. 13.5f.

¹¹⁷ Ibid., Art. 13.2.

¹¹⁸ Ibid., Art. 13.3.

¹¹⁹ Ibid., Art. 13.7.

¹²⁰ Decision 1/CP.21, Adoption of the Paris Agreement, para 90. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹²¹ Ibid., paras 84-88.

¹²² Paris Agreement, Art. 13.9. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹²³ Ibid., Art. 13.8.

The information provided by Parties will be subject to a technical expert review, which is to consider support provided and to evaluate achievement of the contributions. The review is also supposed to identify areas of improvement and to review the consistency of the information provided with the requirements. In addition, Parties shall participate in a “facilitative, multilateral consideration of progress”. The detailed modalities and procedures for the transparency framework are to be agreed in the following years.¹²⁴ They are to build on an eventually supersede the measurement, reporting and verification system established by the Cancún Agreements and subsequent decisions.¹²⁵

2.9.3 Facilitative Compliance Mechanism

Finally, the Agreement establishes a “mechanism to facilitate implementation of and promote compliance with“ its provisions. The mechanism will consist of a committee of twelve scientific, technical, socio-economic, or legal experts to be elected by the CMA on the basis of equitable geographical representation.¹²⁶ The mandate of the compliance committee has been described with the same language as the transparency framework, namely it shall be “facilitative in nature and function in a manner that is transparent, non-adversarial and non-punitive”, and “shall pay particular attention to the respective national capabilities and circumstances of Parties”. The outcome of the MRV process will trigger the review by the committee established under the agreement to address implementation questions and promote compliance in a facilitative and transparent way. Detailed modalities are to be developed, including the question how and when exactly a review by the compliance committee is triggered.¹²⁷

2.10 Increasing Short-term Ambition

2.10.1 Technical Examination Processes

In Durban, developing countries had agreed to embark on the negotiation process for the Paris Agreement under the condition that a second stream of negotiations was initiated with the aim to increase the near-term (pre-2020) ambition of mitigation activities, particularly by developed countries. Developing countries had hoped that Workstream 2 (WS2) of the ADP would put pressure on developed countries: to swiftly ratify their Cancún pledges and their second commitment period Kyoto obligations, and to ramp them up even further. However, it quickly became apparent that the previously agreed emission reductions were hard-wired and developed countries were reluctant to further increase their obligations. Instead, the focus of the negotiations under WS2 shifted towards identifying policy options and technical solutions for implementation, rather than strengthening of headline targets. Furthermore, the process put a focus on non-party actors as agents of increased mitigation ambition. The hope had been that promoting action “on the ground” could lead to overachievement of the pledges, thus closing the ambition gap in actual terms.¹²⁸

¹²⁴ Paris Agreement, Art. 13.11-13.13. FCCC/CP/2015/10/Add.129 January 2016.

¹²⁵ Decision 1/CP.21, Adoption of the Paris Agreement, para 98. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹²⁶ Ibid., paras 102f.

¹²⁷ Paris Agreement, Art. 15. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹²⁸ See also Ott, H. E., W. Obergassel, C. Arens, L. Hermwille, F. Mersmann, H. Wang-Helmreich (2014): Climate Policy: Road Works and New Horizons – An Assessment of the UNFCCC Process from Lima to Paris and beyond. Environmental Liability, 22(6).
http://wupperinst.org/uploads/tx_wupperinst/Post_Lima_Pre_Paris.pdf

Precisely because of this shift in focus, WS2 was a ray of light in an otherwise dim conference in Lima. Parties had engaged in constructive discussions in the form of Technical Expert Meetings and agreed to extend this technical examination process until 2020. In 2015, the negotiation process continued in the same constructive spirit. The various intersessional meetings of the ADP made substantial progress and Parties arrived in Paris already with a very well prepared set of draft conclusions on the matter. Hence, little conflict emerged from the negotiations under WS2 in Paris.

In Paris, Parties agreed to house the technical examination process (TEP) under the joint auspices of SBI and SBSTA and to strengthen it by, inter alia, requesting the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) to engage in the process and enhance their facilitative efforts. Also, Parties encouraged the Green Climate Fund (GCF) as an operating entity of the Financial Mechanism to engage in the process and to provide information with respect to its contribution to the implementation of policies and measures identified in the TEP. The most important result of the Paris decisions is a very strong mandate for the Secretariat to organize the process and disseminate its results. The Secretariat shall:

- organize focussed technical expert meetings representing best practices that are replicable and scalable;
- maintain a technical paper on mitigation benefits and wider sustainable development co-benefits of the presented mitigation activities, as well as options to support their implementation;
- and prepare on an annual basis a summary for policy makers with information on specific policies and practices and options for support for implementation. The summary for policy makers is to be published two months ahead of each COP.¹²⁹

This mandate will contribute to making good practices and lessons learned as well as opportunities to implement successful policies and practices much more digestible for those interested in implementing similar measures. It will also likely increase the visibility of successful mitigation initiatives beyond the international climate policy community.

Only two issues were discussed somewhat more controversially: [1] whether or not a paragraph regarding enhanced provisions of financial support should enter the decision text, and [2] whether or not a TEP should also be established with respect to adaptation. Developed countries were reluctant to include both. On [1] developed countries did not accept to “scale up their level of financial support, with a concrete roadmap to achieve the goal of jointly providing USD 100 billion annually by 2020” as included in an earlier negotiation draft text. Instead, Parties only agreed to conduct a facilitative dialogue at the next COP to identify opportunities for enhanced financial support. For [2] developed countries hesitated to establish another institution under the UNFCCC, notably because WS2 was originally designated only to mitigation. Ultimately, developed countries conceded and an adaptation TEP was established (see also section 2.6).

¹²⁹ Decision 1/CP.21, Adoption of the Paris Agreement, paras 109f. FCCC/CP/2015/10/Add.1, 29 January 2016.

2.10.2 Lima - Paris Action Agenda

The Lima-Paris Action Agenda was initiated one year before Paris, at COP20 in Lima. With this initiative, Peru and France as the presidencies of two successive COPs pursued the aim to link the myriad of activities by non-state actors with the diplomatic process. This proved to be successful and found its culmination in two developments at COP21 in Paris: First, India announced the formation of an International Solar Alliance involving more than 120 countries. Second, a group around Bill Gates announced a “Breakthrough Energy Coalition” that will invest billions of dollars in “patient, flexible risk capital” to bring riskier new technologies to market. All in all, around 700 major cities, regions, companies and investors from all continents promised to help implement the Paris Agreement and accelerate the transformative changes needed to meet the climate change challenge.¹³⁰ The Non-State Actor Zone for Climate Action (NAZCA) portal, maintained by the UNFCCC Secretariat, gathers initiatives and activities from several hundred civil society actors.¹³¹

In Paris, the Parties initiated a facilitative dialogue that will assess progress in the pre-2020 implementation at the next COP. Each COP from 2016-2020 will furthermore be coupled with a high-level event.¹³² Two “high-level champions” will be appointed for overlapping two year terms. The champions are supposed to raise the ambition, to facilitate high-level engagement in the process and provide guidance to the Secretariat on behalf of the COP Presidencies. The first champion is yet to be appointed by the French COP Presidency.

These decisions help creating opportunities to communicate new initiatives with a high visibility. While it is hard to tell whether or not the possibility to showcase initiatives actually contributes to an increased level of ambition, it is still a welcome form of recognition and brings the positive dynamics happening on the ground closer to the international multilateral negotiation process. In Paris, the Lima-Paris Action Agenda (LPAA) was still somewhat detached from the core negotiations. The housing of the TEPs under SBI/SBSTA may contribute to a further integration of non-party actors and initiatives with the UNFCCC negotiations.

¹³⁰ L’Appel de Paris (Paris Pledge for Action): <http://newsroom.unfccc.int/unfccc-newsroom/paris-pledge/>

¹³¹ NAZCA: Non-State Actor Zone for Climate Action, <http://climateaction.unfccc.int/aboutlpaa.aspx>

¹³² Decision 1/CP.21, Adoption of the Paris Agreement, para. 120. FCCC/CP/2015/10/Add.1, 29 January 2016.

3 Assessment: The Stage Is Set, Waiting for More Action

When the final gavel fell in the evening of 12 December 2015 and the Paris Agreement was adopted, the Plenary Hall was for a seemingly endless time filled with thunderous applause and cheers that created an atmosphere like in a rock concert. While this eruption was certainly in part a practical way of ensuring that no objections of any kind were heard until it was too late, it was also the result of a very genuine collective feeling of relief and joy. Many thousands of diplomats, NGOs and other activists had spent six years after the disaster in Copenhagen to successfully rebuild a global process for the fight against climate change. This had required endless meetings over many years in many parts of the world, absorbed enormous intellectual and emotional resources and had led to long absences from families and friends. All this prepared the collective eruption on this evening of 12 December 2015.

The relief, to be sure, concerned not only the concrete result, the Paris Agreement, but equally the fact that the international community appeared to be able to tackle global problems successfully. 12 December 2015 in this sense marked not only the rising from the ashes of climate policy, but of environmental policy and multilateral governance in general. This is no small achievement. Taken together with the fact that the Paris Agreement represented the upper end of the range of possible outcomes, Paris can be considered a success. The conditions for achieving this result and the lights and shadows of the agreement will be explored in the final section of this article.

3.1 Assessing the Paris Outcome: The Benchmark for Success

While the Paris Agreement may easily be criticised for setting ambitious objectives but failing to actually deliver,¹³³ any assessment of the Paris Agreements needs to be based on an understanding of what international processes can actually deliver.¹³⁴ Diplomacy does not happen in a vacuum. The positions countries take internationally are determined by their domestic political situations. International negotiations can therefore rarely take decisions that have not previously been prepared nationally. As countries are sovereign, that is, they have nobody above them to enforce rules, international agreements can only go as far as what countries are prepared to do.

And the current situation is that in most key countries there is as yet no appetite to undergo the fundamental economic and ecologic transformation that is necessary. Energy provision and transport are dominated by strong incumbent industries whose business models rely on using fossil fuels, and combating climate change basically requires to end these business

¹³³ See e.g. Paris climate deal: the trouble with targetism, <http://www.theguardian.com/science/political-science/2015/dec/14/the-trouble-with-targetism>

¹³⁴ Hermwille, L., W. Obergassel, H. E. Ott, C. Beuermann (2015): UNFCCC before and after Paris – what’s necessary for an effective climate regime? *Climate Policy*, 1–21. <http://doi.org/10.1080/14693062.2015.1115231>

models. The political influence of these groups is illustrated by the lavish amounts of fossil fuel subsidies, roughly USD 550 billions (in 2013), according to the International Energy Agency (IEA).¹³⁵ Back in 2009, the Group of Twenty (G20) already committed to phase out “inefficient” fossil fuel subsidies; however, little has been achieved. A recent report estimates that G20 countries collectively provide national subsidies to fossil fuel production alone through direct spending and tax breaks to the amount of USD 78 billion.¹³⁶ This money is used to further explore and develop fossil fuel reserves at a time where it is clear that at least 30% of oil reserves, 50% of gas reserves and over 80% of current coal reserves need to stay in the ground.¹³⁷

Changes in national politics and policies will therefore be a prerequisite for, rather than a consequence of, the development of an effective international regime. The role the international climate process can in the meantime play is to serve as a key catalyst for these national discussions by keeping the issue on the agenda and forcing national policy makers to continuously revisit it.

And there is evidence that the UNFCCC does indeed fulfil this catalytic function. While Copenhagen failed to deliver the anticipated climate treaty, the summit was not without successes if seen in a broader context. The deadline imposed by the Copenhagen conference injected a significant momentum into national discussions as all countries were forced to make up their minds what their contribution to the agreement was going to be. Up till rather shortly before the conference there was little reason to expect that countries like China and India would submit emission targets, but ultimately they did.¹³⁸ Subsequently, the momentum generated by the Copenhagen process resulted in a substantial increase in national climate legislation.¹³⁹ And there already is evidence that the Paris process is having the same result. A recent study found that the preparation of INDCs has resulted in impacts such as initiating long term planning processes, advancing climate change on political agendas, and developing in-country technical capacities.¹⁴⁰

The Paris Agreement was never going to deliver the emission reductions necessary for keeping global warming below 2 °C – it never could, given the current political realities in the major emitting countries. The question is whether the agreement has the potential to catalyse

¹³⁵ IEA (2014): World Energy Outlook - Energy Subsidies.

<http://www.worldenergyoutlook.org/resources/energysubsidies/>

¹³⁶ Bast, E., A. Doukas, S. Pickard, L. van der Burg, S. Whitley, S. (2015): Empty Promises – G20 subsidies to oil gas and coal production. London and Washington, DC: Overseas Development Institute / Oil Change International.

¹³⁷ McGlade, C., P. Ekins (2015): The geographical distribution of fossil fuels unused when limiting global warming to 2 °C. *Nature*, 517(7533), 187–190. <http://doi.org/10.1038/nature14016>

¹³⁸ Sterk, W., C. Arens, N. Kreibich, F. Mersmann, T. Wehnert (2012): Sands Are Running Out for Climate Protection. The Doha Climate Conference Once Again Saves the UN Climate Process While Real Climate Action Is Shelved for Later. Wuppertal: Wuppertal Institute for Climate, Environment and Energy. <http://epub.wupperinst.org/frontdoor/index/index/docId/4673>

¹³⁹ Dubash, N. K., M. Hagemann, N. Höhne, P. Upadhyaya (2013): Developments in national climate change mitigation legislation and strategy. *Climate Policy*, 13(6), 649–664; Fankhauser, S., Gennaioli, C., and Collins, M. (2015). Do international factors influence the passage of climate change legislation? *Climate Policy*, 0(0), 1–14. doi:10.1080/14693062.2014.1000814

¹⁴⁰ Day, T., F. Röser, R. Tewari, M. Kurdziel, N. Höhne (2015): Preparation of Intended Nationally Determined Contributions (INDCs) as a catalyst for national climate action. NewClimate Institute and GIZ. http://mitigationpartnership.net/sites/default/files/indc_as_catalyst.pdf

changes of these national political realities, whether it becomes a pacemaker for policy process, not only at the international level, but also in the capitals of the world.

3.2 Differentiation: An Agreement Applicable to All

After 25 years of UN climate diplomacy, the world's governments have for the first time in history negotiated a treaty which envisages climate action by all nations. This concludes the decades-long struggle on the participation of the US and of developing countries in the climate regime and bridges the deep schism, the dichotomous division of the world into "industrialized" and "non-industrialized" states by the UNFCCC, cemented for nearly 20 years through the Kyoto Protocol. The world has changed since the 1990s, and some countries that have previously been economically weak have since risen to become large emitters. Developing countries deserve high praise for agreeing to end this dichotomy, despite the fact that many industrialized countries have not shown a large degree of leadership in fighting climate change. By doing so, developing countries have accepted that the fight against climate change is a common global task, albeit with common but differentiated responsibilities. Inscripting this common endeavour in the Paris Agreement must be seen as a major success of the Paris summit.

Differentiation between the two blocks is still present in the new agreement, but in much more attenuated form than previously. While the agreement echoes the Convention's principles of equity and common but differentiated responsibilities, it adds "in the light of different national circumstances", allowing for a "dynamic" interpretation of CBDR-RC. Most provisions establish common obligations for all countries, but require developed countries to continue taking the lead while expecting developing countries to step up over time:

- While all Parties are required to make contributions, they are nationally determined. However, the Agreement does not enshrine total self-differentiation: Industrialized countries are expected to undertake absolute greenhouse gas reductions, while developing countries are encouraged to move to economy-wide targets over time, and get support in achieving their contributions. LDCs and SIDS are given discretion to submit only policies and measures.
- While the agreement aims to reach global peaking of emissions as soon as possible, it recognises that peaking will take longer for developing countries.
- While developed countries "shall provide financial resources", other countries are "encouraged" to provide support "voluntarily".
- While there is one common transparency framework, its detailed provisions are to account for differing national capacities and developing countries are to be provided with capacity building.

3.3 Ambitious Global Targets: Towards Decarbonisation?

The new agreement may not ensure that each country progresses at the same speed, but it does make sure that everybody turns to the right direction. This direction is provided by the long-term goal to keep global mean temperature rise "well below 2 °C", which was inscribed prominently into Article 2 of the treaty. The temperature limit is thus not only enshrined in international law, but also strengthened compared to the previous formulation. Furthermore, the agreement contains the aim "to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels". Recent climate science has more and more underlined that the 2 °C limit is not a secure guardrail, but would in all likelihood mean severe damages from climate change. Anchoring the 1.5 °C limit in the agreement is an enormous negotiating victory of the most vulnerable countries, small island states and least developed countries that until recently seemed impossible.

The 2 °C threshold of the Copenhagen Accord and consequently the Cancún Agreements has been widely interpreted as a goal to be "achieved". This implies an economic cost-benefit calculation in which the 2° C threshold marks the point at or around which the cost of abatement of GHG emissions and the expected benefits of avoided cost through climate change impacts are deemed to break even¹⁴¹. The sense of urgency of the 2 °C goal was never beyond question to those familiar with mitigation scenario modelling exercises compiled by the IPCC, but it may still have linguistically created a "comfort zone" and a sense of remaining flexibility that was never justified. The ultimate objective of the Convention is to avoid dangerous climate change; the Paris Agreement now posits that any global warming is dangerous. Its Articles 2 and 4 and the related decisions require an interpretation of the 2 °C threshold as a limit that must not be exceeded as opposed to a goal to be achieved. The newly formulated long-term goal is thus not only a quantitative increase in the level of ambition. It implies a qualitative shift: There really is no "comfort zone" and "too much" climate change mitigation is never enough.

Moreover, Paris marks a significant step forward in further operationalizing the 2 °C limit. Parties agreed that, firstly, greenhouse gas emissions need to peak "as soon as possible", and, secondly, that "a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century" (Art. 4). This formulation is not as well suited as a new norm to guide the behaviour of actors as compared to some of the alternatives that had been on the negotiating table. For example, a goal of full decarbonisation by a fixed date would have provided a much less ambiguous mandate not only to nation states, but also to the private sector. However, from a climate science point of view, the actual formulation is even more inclusive, as it also encompasses other greenhouse gases than CO₂ and particularly the land-use sector. Given that it will probably not be possible to reduce emissions from agriculture and some industrial processes to zero, the available sink capacity will be needed to compensate for emissions from these sources, which means that all emissions that can be reduced to zero need to be reduced to zero. The long-term goal as formulated in the Paris Agreement is thus synonymous with a call to global decarbonisation before the end of

¹⁴¹ For a discussion of this see for example Grubb, M., J.-C. Hourcade, K. Neuhoff (2014): „Trapped?“. In: *Planetary Economics: Energy, Climate Change and the Three Domains of Sustainable Development*. Routledge, pp. 1-45.

the century, much earlier even in developed countries. This is the main message from Paris: The age of fossil fuels is over.

The Paris Agreement will thus provide a strong legitimizing function for the growing civil society movements against coal power plants, mines, pipelines and other infrastructure damaging the global climate. Comparable to the Final Act of Helsinki that provided dissidents in the former Soviet Bloc with a crucial reference for their work, opponents of fossil infrastructures can now point to the goals of the Paris Agreement to justify their activities.

3.4 National Contributions: Insufficient and Non-Binding

Political pressure from concerned citizens will be highly necessary as the emission reductions countries have pledged under the Paris Agreement are widely out of line with its global targets. As in Copenhagen, it was not possible to have a top-down consideration of what each country should contribute to the global goal. Instead, there was again an explicitly bottom-up process where each country “nationally determined” the contribution it was going to submit.

There actually is some merit to this approach apart from being the only approach that was acceptable to all Parties, as it allows to move away from the narrow-minded focus on GHG emissions the UNFCCC has so far had. It is sub-complex to see climate change solely through the lens of emissions as this frames climate change as an environmental problem. However, as historically nearly all economic activity has been associated with GHG emissions, climate change is fundamentally a development problem, much more than an environmental problem. This is reflected in policy-makers’ frequent statements of concern about access to ‘carbon space’ or ‘development space’.¹⁴² The national determination of contributions opens space for policy-makers to better marry their climate change efforts with their national development discourse and planning.

However, while the national determination of contributions was key to getting any contributions, their level of ambition leaves much to be desired. Since almost all countries’ INDCs had been communicated before COP21, the projected impact on emissions was well-known before the conference started. If implemented, the contributions will notably reduce emissions. However, this will not be enough. Global mean temperature would most likely still increase in the range of 2.7 °C to 3.5 °C. This shortfall was explicitly highlighted in the decision adopting the agreement, which “notes with concern” that the contributions “do not fall within least-cost 2 °C scenarios but rather lead to a projected level of 55 gigatonnes in 2030”, while also noting that for a 2 °C pathway, 2030 emissions would need to be reduced to 40 gigatonnes.¹⁴³

Furthermore, the actual achievement of contributions is not a legally binding obligation, the Paris Agreement only commits each Party to “prepare, communicate and maintain successive nationally determined contributions that it intends to achieve.” In addition, “Parties shall pur-

¹⁴² Hermwille, L., W. Obergassel, H.E. Ott, C. Beuermann (2015): UNFCCC before and after Paris – what’s necessary for an effective climate regime? *Climate Policy*, pp. 1–21.

<http://doi.org/10.1080/14693062.2015.1115231>; Moomaw, W., & Papa, M. (2012). Creating a mutual gains climate regime through universal clean energy services. *Climate Policy*, 12(4), pp. 505–520.

¹⁴³ Decision 1/CP.21, Adoption of the Paris Agreement, para 17. FCCC/CP/2015/10/Add.1, 29 January 2016.

sue domestic mitigation measures, with the aim of achieving the objectives of such contributions.” The Paris Agreement thus establishes legally binding obligations of conduct but not obligations of result.¹⁴⁴ That is, it commits countries to doing certain things but not to achieving certain things. It requires countries to notify a contribution and to take domestic measures in pursuit of achieving the contribution. It also requires countries to report on the progress they are making and to undergo an international review. But it does not establish a legally binding obligation for countries to actually achieve their contributions. Correspondingly, the mandate of the compliance mechanism is decidedly facilitative. This is the price that needed to be paid to get the USA and the LMDCs on board.

Instead of binding commitments, the Paris Agreement relies on the instruments of ‘naming and shaming’ to ensure implementation: creating a reputational risk through the establishment of mandatory transparency and review provisions. And these provisions are substantially more stringent than in particular the LMDCs would have liked.

Further along these lines, the contributions are to be housed in a registry, not inscribed in the agreement itself. Inscription in the agreement could also have been an argument to require ratification by the US Senate. While inscription in the agreement might arguably have given the contributions higher standing, on the positive side the housing in a registry makes it easier to revise them. In the Kyoto Protocol, the adoption of commitments for the second commitment period has required a cumbersome negotiation and ratification process, which is currently far from being completed. Revising contributions to the Paris Agreement is going to be much easier, and according to its provisions, revisions may only strengthen, not weaken, contributions.

3.5 Ratchet Mechanism: A Political Pacemaker to Strengthen Ambition

Given the lack of ambition of the contributions that have been notified, the effectiveness of the Paris Agreement in limiting global warming depends on the quick strengthening of the national contributions. Arguably, the key question for the agreement was therefore whether it would create further political moments to put pressure on countries to increase their ambition. Some countries wanted the first evaluation of the agreement’s impact to take place in the late 2020s. With such a timeframe, the agreement’s potential to catalyse further ambition would have been much reduced.

Instead, Parties ultimately agreed that a first stocktake of the global effort will take place already in 2018, with subsequent communication or updating of contributions. In 2018, public attention will also be heightened by the IPCC, which is invited to submit a special report on the impacts of global warming of 1.5 °C and related global emission pathways. These moments of stocktaking and subsequent submission of contributions will re-occur every five years. Analyses immediately after Paris seem to indicate that an optimal use of the ratchet mechanism would be sufficient to keep global mean temperatures below 2 °C. This would imply, however, that Parties communicate strengthened contributions already before 2020 and that they commit to longer term targets with substantial emission reductions.

¹⁴⁴ Bodansky, D. (2012): *The Durban Platform: Issues and Options for a 2015 Agreement*. Arlington, VA: C2ES Center for Climate and Energy Solutions.

Legally, however, the provisions are once again weak, in particular for the first cycle in 2018-2020, which is governed by the decision adopting the agreement. There is no obligation for countries to strengthen their contributions. The requirement is only to “communicate or update” contributions. Furthermore, as before Paris, no international review of any kind is foreseen for the individual contributions. Nonetheless, the stocktake and subsequent “communication or updating” of contributions will mark another moment of concentrated political attention after Paris that may be used for fostering the dynamic of the process.

The legal language is more stringent for the subsequent cycles post-2020, which are governed by the Agreement. Here, Parties agreed that each contribution will “represent a progression beyond the Party’s then current nationally determined contribution”¹⁴⁵ This is the core of a new and innovative mechanism: compulsory strengthening of contributions every five years.

A piece of homework is to agree on common timeframes for contributions. Current contributions have varying timeframes, many have 2030 as target years, others have 2025, and several have yet other dates. It would be highly recommendable to agree on five-year timeframe for future contributions as further safeguard against locking in low ambition. Moreover, short periods are more in line with most policy-makers political horizon. In politics, contributions that need to be delivered in some far away future are quickly seen as somebody else’s problem.

While there is no legal obligation to strengthen the first round of contributions, the current contributions are nonetheless not necessarily the last word, given the strengthening of the temperature limit, the growing awareness of climate change impacts, and the growing dynamics in renewable energy deployment and other solutions, which quickly renders previous goals obsolete. The European Union, for example, has politically not been able to strengthen its goal of 20% reductions compared to 1990 levels in 2020. At the same time, projections of the European Environment Agency indicate that EU emissions will in fact have fallen by 24-25% by 2020.¹⁴⁶ Other estimates even point to a 30% reduction.¹⁴⁷ Up to now, the climate regime did not have a mechanism to confront states with such dynamics. The new mechanism of regular stocktakes will force countries to regularly justify the ambition level of their contributions. For the EU, this will mean heightened political pressure to strengthen its 2030 climate goals.

In this perspective, the national determination of contributions and the lack of bindingness was a step that needed to be taken in order to get moving at all. While this is certainly a drop of bitterness in the otherwise rather successful agreement, legally binding obligations are usually only successful when accompanied by an effective enforcement system. The Kyoto Protocol’s compliance mechanism foresees that non-compliant countries must take on more ambitious obligations in subsequent commitment periods. This is not much of a threat given that one country (Canada) withdrew from the Kyoto Protocol and other countries (Russia, New Zealand, and Japan) did not take on any commitments at all in the second commitment period.

¹⁴⁵ Paris Agreement, Art. 4.3. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹⁴⁶ Climate change: EU shows leadership ahead of Paris with 23% emissions cut, <http://www.eea.europa.eu/media/newsreleases/climate-change-eu-shows-leadership>

¹⁴⁷ Inflated CO2 Forecasts hide the fact that the EU is on track for 30% cuts by 2020. https://sandbag.org.uk/site_media/pdfs/press_releases/Press_release_new_2020_forecast.pdf

Ultimately, formal sanctions are only one means of international diplomacy to make countries comply with their obligations. The other and sometimes equally effective one is the potentially high political costs implied by non-compliance. The Paris Agreement with its five-year cycles and its transparency framework (see section 5.7) periodically provides for political moments, moments of public scrutiny at each of which policy makers risk high political costs, if they cannot keep up with the contributions they formulated.

3.6 Transparency: Fine Print to Be Drafted

A crucial precondition for the success of the regular stocktakings will be that countries transparently report the implementation of their contributions, and subject themselves to review. The need for more transparency first of all relates to the contributions themselves. As in Warsaw, it was again not possible to agree on specific information requirements for the contributions that would allow to easily understand and evaluate them. Further guidance is to be developed in the coming years.

As for transparency on the implementation of contributions, the Paris Agreement for the first time establishes a universal transparency system. While there previously had been separate reporting and review systems for Annex I countries and non-Annex I countries, there will now be only one system. Differentiation is still present, but no longer in the previous binary fashion. Instead, developing countries are to be accorded flexibilities in light of their respective national capacities. Special rules have been maintained only for LDCs and SIDS. The new system thus substantially increases the transparency requirements for mitigation actions by developing countries. At the same time, the new system meets the demands of developing countries by also including adaptation and requiring developed countries to increase transparency on their provision of support.

The price to pay for this increase in transparency has been to place a strong emphasis on facilitation rather than compliance. The system's mandate is to be "non-intrusive" and "non-punitive". While the Kyoto Protocol has a compliance mechanism, the new agreement has a "mechanism to facilitate implementation of and promote compliance with" its provisions.

In addition, the accounting system will be mandatory only for the second round of contributions. As many countries have chosen 2030 as target date, this potentially delays the introduction of robust accounting quite substantially. Moreover, the devil will be in the details of the transparency framework, which have yet to be fleshed out. In particular what the flexibilities for developing countries are to look like in practice will likely be the subject of further heated debate. Apart from increasing the level of mitigation ambition, the transparency framework will be the most relevant field of work in the coming years.

This is also true for transparency of support to developing countries. Industrialized states will have to communicate volume and use of their financial contributions biennially, but here as well the detailed modalities are still to be worked out. One genuinely new aspect in the transparency framework established by the agreement is that developing countries should also report on support needed, and also of support received. While there is no obligation to do so,

this has the potential to make the framework significantly more robust.¹⁴⁸ In the past, there had time and again been discussions about quantities of support received not matching claims of developed countries of provision of support (see also section 2.8.1 on discussions between developed and developing country Parties on reporting of financial flows). Matching data on provision and receipt on a more continuous basis has the potential to relieve discord among countries and, pave the way to a clearer picture about support flows in the future under the Paris Agreement.

3.7 Promoting a Long-Term Perspective: New Horizons

Contrary to the Cancún Agreements, which only set one-off targets for 2020, the Paris Agreement has open-ended durability. The prospect that efforts will be evaluated and new contributions will need to be submitted every five years for an open-ended period of time has the potential to promote taking a long-term outlook for the development of national policies and investment decisions in line with the Agreement's long-term goals.

The Paris Agreement also urges Parties to develop and communicate low greenhouse gas emission development strategies in accordance with its long-term goal and the principle of CBDR-RC. This exercise could further facilitate the anchoring of climate protection in all government decisions. However, this provision so far lacks further operationalization. It would therefore be helpful if progressive countries went forward with the communication of such strategies as soon as possible. The Secretariat could be directed to create a public listing and repository of strategies that have been communicated, to enhance the expectation that all countries should follow up.

3.8 Finance: Vague Language

The agreement's provisions on support for developing countries are weak. For an effective support to the most vulnerable societies of this planet, notably least developed countries and small island states, it will be indispensable to massively ramp up these contributions. The Paris Agreement only contains vague language concerning concrete financing contributions for mitigation and adaptation in developing countries. Legal obligations of financing contributions in the Paris Agreement were sacrificed again to accommodate the United States' interior political constraints.

The accompanying decision text reiterates that the goal of annual USD 100 billion of North-South financial flows in 2020 and beyond, promised already in Copenhagen, is still valid, and will be ramped up before 2025. The USD 100 billion must therefore be the floor of financial contributions. Until now, many industrialized countries regarded the pledge of Copenhagen more as a ceiling. However, the coming negotiations will prove interesting, as the current decision text does not specify who will contribute to the stronger financing goal, but only speaks of setting "a new collective goal."

¹⁴⁸ Paris Agreement, Art. 13.10. FCCC/CP/2015/10/Add.1, 29 January 2016.

3.9 REDD+: What Future Role?

The fact that the Paris Agreement features a separate article on REDD+ can be considered a clear political signal underscoring the future relevance of the concept. This must be seen especially in light of Art. 4, which introduces the concept of GHG emissions neutrality. In this context, REDD+ activities might be used to assist countries in achieving their climate change mitigation contributions.

It remains to be seen whether this potential use and the strengthening of the concept will provide sufficient confidence to trigger new REDD+ action on the ground and provide the support needed for activities that have already taken off. More specifically, with results-based payments being explicitly mentioned in both the agreement text and the COP decision, there is a risk that readiness activities, which are a precondition for undertaking results-based activities, might be disregarded.

Furthermore, it remains to be seen which role forest activities might play under the newly established cooperative approaches. Explicit language on REDD+ was removed from the text but in paragraph 37 of the COP decision, which lists the principles which the mechanism established in Art. 6.4 of the Paris Agreement is to be built on, wording has been modified from “permanent” to “long-term”.¹⁴⁹ This allows for the implementation of forestry activities under the new mechanism, raising considerable concerns in particular among environmental NGOs, who fear that fossil fuel emissions might in the future be offset by non permanent storage of carbon in trees.

Another concern relates to potential adverse social and environmental effects of forestry activities. In this context, it should be noted that the Paris Agreement contains several elements aimed at avoiding such impacts. These are covered in the preamble of the Agreement, where Parties “recogniz[e] the fundamental priority of food security” and “not[e] the importance of ensuring the integrity of all ecosystems [...] and the protection of biodiversity”¹⁵⁰. Parties further agreed that they “should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights”.¹⁵¹ Despite the fact that these elements have been weakened due to their placement in the preamble and their wording, they nevertheless underscore the relevance of already established safeguards and will hopefully guide any future land-use activities under the Agreement.

3.10 International Cooperative Approaches: What Basis for Market Mechanisms?

Further work will also be required on the issue of market mechanisms. One fundamental question is how the transfer of mitigation outcomes is to work given the huge variety of types of contributions and the fact that there is no formal obligation to actually achieve them. The Kyoto Protocol is at its core a cap and trade system. The Paris Agreement now also foresees trade – but no caps. Most countries do not have absolute emission targets, which makes ac-

¹⁴⁹ Decision 1/CP.21, Adoption of the Paris Agreement, para 37. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹⁵⁰ Paris Agreement, preamble. FCCC/CP/2015/10/Add.1, 29 January 2016.

¹⁵¹ Ibid.

counting for transfers more challenging. Moreover, since the achievement of contributions is not a legally binding obligation, the new agreement lacks the fundamental safeguard against overselling which the Kyoto Protocol has in-built at its core. The guidance that is to be developed will therefore need to include ways to ensure that mitigation outcomes that are transferred have actually been achieved. As UNFCCC oversight of the cooperative approaches is not foreseen, the only viable option seems to be to make achievement of contributions obligatory for the Parties that participate in cooperative approaches. The cooperative approaches could thus constitute a platform for frontrunner countries that are willing to be bound to actually achieving their contributions.

3.11 Loss and Damage: A New Pillar of Climate Policy

The Paris Agreement has not only laid a common base to strengthen mitigation, but also strengthens efforts of adaptation to as well as loss and damage from inevitable climate change. With a separate article on loss and damage (Art. 8), dealing with these impacts has been established as a third column to climate action besides mitigation and adaptation. To recognize this had been a central concern of the most vulnerable countries. Due to resistance by a number of industrialized countries, however, its establishment has only been possible by anchoring a clause in the decision text which precludes the use of these provisions as a basis for liability and compensation claims. Since the clause is not contained in the agreement itself but in the accompanying COP decisions, it might be changed more easily than any of the elements contained in the agreement. The legal implications of this are however still to be seen and the clause can be expected to nevertheless guide any future interpretation of the concept.

3.12 Adaptation: Strengthened Role

The Paris Agreement has placed greater importance on national as well as global action to help people to adapt to climate change impacts than ever before. This can be considered a huge success for developing country Parties. While the Agreement furthers the participation of all countries in adaptation activities and sets the global goal to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change, it also acknowledges that global needs for adaptation highly depend on the success of mitigation activities.^{152, 153} This link to the temperature goal is very important as it stresses the two issues' dependence on one another.

To provide countries with opportunities to review the overall progress made in achieving the global goal on adaptation and to spiral up adaptation action and support, action on adaptation is to be reviewed and accelerated every five years in parallel to the contribution cycles for mitigation. The main drop of bitterness regarding adaptation in Paris was that though the need for substantial adaptation finance is recognized in the Paris Agreement, it does not include a collective, quantified goal for adaptation finance. This had been an important demand of developing country Parties.

¹⁵² Ibid., Art. 7.1.

¹⁵³ Ibid., Art. 7.4.

4 Outlook: Next Steps on a Long Journey towards Decarbonisation

4.1 The Return of Environmental Multilateralism

The Copenhagen conference was deemed a “diplomatic disaster”¹⁵⁴ and in the aftermath many doubted whether the multilateral process under the UNFCCC could be effective at all in leveraging international climate cooperation. The Cancún Agreements demonstrated that Parties were willing to continue meaningful negotiations. Still, progress was painstakingly slow and frustrated many observers. In his speech to the delegates the morning before the final negotiation draft was published COP President Laurent Fabius highlighted¹⁵⁵: “Nobody here wants to see a repeat of Copenhagen, a Copenhagen that would no doubt be more polished, but which would ultimately be much more destructive. [...] if, today, we were so unfortunate as to fail, how could we rebuild hope? Confidence in the very ability of the concert of nations to make progress on climate issues would be forever shaken.”

In this vein, Paris was probably the last chance for environmental multilateralism to demonstrate its ability to deliver meaningful results. While the Paris Agreement is far from perfect and little has been achieved in the process of transforming unsustainable socio-economic systems into sustainable ones, it still has exceeded the expectations of most observers. It demonstrated that the UNFCCC can be a transition arena in which all relevant actors can engage in developing common strategies to mitigate climate change. And that these strategies can take a legal form that satisfies both the demands of the international community and the constitutional and political peculiarities of the USA – not foreseen in the Convention but nevertheless a treaty under international law. This in itself is an important achievement of the Paris talks.

4.2 Cultivating Coalitions

This success was to a large extent forged by the “High Ambition Coalition” that was formed by the European Union and a group of originally 79 developing countries from Africa, the Caribbean and Pacific countries. It was devised and brought together in Summer 2015 by the charismatic Foreign Minister of the Marshall Islands, Tony de Brum. This group enlarged during the two weeks of the negotiations – already at the time of the announcement, the USA was part of it and when Brazil declared that it would also join in the last days of the COP, it was clear that this was a winning coalition. In the final hours of COP21, this group, with de Brum and the EU Commissioner Miguel Arias Cañete at its core, walked arm in arm into the plenary and were greeted with loud applause – a strong signal right before the beginning of the final plenary that paved the way for the gavel of COP President Laurent Fabius.

¹⁵⁴ Grubb, M. (2010): Copenhagen: back to the future. *Climate Policy*, 10(2), pp. 127–130.

¹⁵⁵ COP21 - Plenary session for the submission of the final draft text - Speech by Laurent Fabius (12 December 2015), <http://www.diplomatie.gouv.fr/en/french-foreign-policy/climate/events/article/cop21-plenary-session-for-the-submission-of-the-final-draft-text-speech-by>

Climate policy in the coming years would greatly benefit from the continuing coalition between ambitious developing nations and the EU, both inside and outside of the UNFCCC, the Kyoto Protocol and the Paris Agreement. Several times already this group, formerly known as the “Green Group”, has rescued the diplomatic process and secured that the global climate regime could function.¹⁵⁶ However, this alliance has usually broken up after such rescue operations. This time, the coalition should stick together, mindful of the fact that the Paris Agreement is just the kick-off for a long strive towards a truly effective agreement.

Inside the UN climate regime, such a coalition could help drive the much-needed development of transparency rules, and ensure a quick entry into force of the Paris Agreement. There are numerous clauses in the treaty and the accompanying decision that require clarification or further specification. As the analysis of the contributions has shown, a quick sharpening already by 2018 would be necessary, if the endeavour to stay well below 2 °C is supposed to succeed. This will require continued pressure from a high profile group with negotiation clout – which the “High Ambition Coalition” would represent. But also the further development of the UNFCCC and the Kyoto Protocol would greatly benefit from a strong and ambitious coalition.

Outside the UNFCCC framework, a pioneer decarbonisation alliance could sharpen the currently insufficient commitments of states, take up the Paris momentum and develop fresh dynamics for international climate policy. One of the main obstacles for a quick evolution of the regime¹⁵⁷ has not been touched by the negotiators in Paris: the consensus principle. Article 16.5 of the Paris Agreement stipulates that the Rules of Procedure of the Convention “shall be applied *mutatis mutandis* under this Agreement, except as may be otherwise decided by consensus by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement”. There is thus a chance that the first CMA adopts Rules of Procedure that deviate from the usual consensus rule. The chances are low, however, because the threshold for the entry into force means that the USA and China will be part of it – and they are not known to favour majority voting rules.

As observed earlier, the consensual approach might be the most appropriate form of development for a global, universal process.¹⁵⁸ It does, however, prevent the more ambitious players from a faster common evolution of their climate protection efforts. This can best be done outside of the UN regime and thus might present a chance for the core of the High Ambition Coalition between the EU and developing countries to cooperate in the framework of a pioneer’s decarbonisation alliance. The European Union might thus initiate a diplomatic effort to keep the High Ambition Coalition together, as an informal negotiating group in the context of the UNFCCC, the Kyoto Protocol and the Paris Agreement and as a pressure group outside of the

¹⁵⁶ E.g. at COP1 in Berlin, see Oberthür, S., H. E. Ott (1999): The Kyoto Protocol. International Climate Policy for the 21st Century. Berlin/Heidelberg et al.: Springer Verlag, pp.46 et seq.

¹⁵⁷ Ott, H. E., W. Obergassel, C. Arens, L. Hermwille, F. Mersmann, H. Wang-Helmreich (2014): Climate Policy: Road Works and New Horizons – An Assessment of the UNFCCC Process from Limat to Paris and beyond. Environmental Liability, 22(6), pp.223-238, p.235ff.
http://wupperinst.org/uploads/tx_wupperinst/Post_Lima_Pre_Paris.pdf

¹⁵⁸ Hermwille, L., W. Obergassel, H. E. Ott, C. Beuermann (2015): UNFCCC before and after Paris – what’s necessary for an effective climate regime? *Climate Policy*, pp. 1–21.
<http://doi.org/10.1080/14693062.2015.1115231>

negotiations. It might even be successful in keeping the coalition together as it stood at the end, including the US and Brazil.

4.3 What Role for Non-Party Actors?

As stated above, the Paris Agreement does not “resolve” climate change as an environmental problem, but it creates periodic political moments that can be used to strengthen it. It deploys a pacemaker for a “political heartbeat” that can bring about the required transformation. Time will tell whether the dynamic unfolded in Paris can be transferred from the international level to other levels. It is certain that this will not happen automatically. Actors from all political levels need to breathe life into the political moments that the Paris Agreement creates. Non-state actors, cities, and regions can and must play an important role in leveraging climate action through the multi-level governance system.

In the slipstream of the Paris Agreement, this year’s COP created a space which could provide a space to link more closely various types of transnational governance with the UNFCCC negotiation process. Under the agenda item for increasing the near-term ambition, formally known as ADP Workstream 2, a strong mandate was provided to the Secretariat to organize Technical Examination Processes both for mitigation as well as adaptation. For mitigation, this process has already proven fruitful in the last two years. With the more focused mandate, it will likely be even improved. The mandate to produce technical reports that synthesise the work of the TEP and summaries for policy makers will contribute to making good practices and lessons learned as well as opportunities to implement successful policies and practices much more digestible for those interested in implementing similar measures. It will also increase the visibility of such initiatives beyond the international climate policy community.

Currently, this process is linked exclusively to the increase of pre-2020 ambition. Clearly, the role of non-party actors extends beyond that. After 2020, the TEPs should therefore continue and be established permanently to complement the Paris Agreement.

4.4 The Paris Agreement is not the End but the Beginning

The next years will show whether the world community is willing to seriously tackle the challenges of a global transformation. The turn-around from the fossil-based development path is still possible, but requires immediate implementation and the strengthening of national contributions already from 2018. It requires transformative policies in almost all fields – energy, transport, industrial processes, housing, agriculture and land-use in general. The decisive momentum from Paris, which was felt by everyone who was present at COP21 and which could even be felt via the electronic media, this crucial momentum must be turned into a political force. Politics, the economic sector, civil society and science all have the responsibility to make utopia possible: a sustainable planet for everybody.

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