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The Paris Climate Agreement: Is It Sufficient to Limit Climate Change?

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“The Paris Agreement is a monumental triumph for people and our planet” ([UN News Centre, 2015](#)). Statements, like this one from UN Secretary-General Ban Ki-Moon, represent the global excitement shortly after the acceptance of the *Paris Agreement* and describe the outcome of the COP21 in December 2015 primarily as ‘historical’. Twenty years after the UN’s first COP (Conference of the Parties), the international community reached “the first universal agreement in the history of climate negotiations” ([French Government, 2015](#)).

Euphoria about the diplomatic success gave way to scepticism if the deal will actually have real political power to initiate ambitious climate policy worldwide that can prevent dangerous levels of climate change. It will be the next years and decades that show whether the Paris Agreement can create the so far missing global ambition to limit anthropogenic climate change and its capability to reduce risks and vulnerability to the impacts of an already changed climate.

In this DIW Roundup we discuss the most important achievements of the negotiations in Paris, and show necessary steps, so that the convention will lead to the historic actions it is meant to create. Doing so, we complement a previous DIW Roundup (No. 82; [Richter and Brauers, 2015](#)), where we evaluated expectations prior to the Paris climate talks in December 2015.

I. The main outcomes of the COP21

After two weeks of intense negotiations at the COP21 in Paris in December 2015, the 196 Parties of the *UNFCCC* agreed on the *COP Decision* and the *Paris Agreement* (see [Richter and Brauers, 2015](#), for details on the *UNFCCC* and previous COPs). The *COP Decision* adopts the *Agreement* and contains the steps until 2020, when the *Agreement* will enter into force. With its flexible architecture, the *Paris Agreement* connects a top-down with a bottom-up approach, constituting an international agreement combined with national, sovereign commitments. In the following, the most important achievements and shortcomings of the framework are outlined.

Removal of the strict division into developing and developed countries

What makes this deal the first universal climate agreement, is that it takes all countries into responsibility of taking action. Therefore, it removes the former strict distinction between Annex-I and non-Annex-I countries ([Wynn, 2015](#)). The principle of *common but differentiated responsibilities and respective capabilities* remains and is extended by ‘*in the lights of different national circumstances*’ ([UNFCCC, 2015](#)). This more flexible approach of different responsibilities still explicitly asks developed

countries to *take the lead* (Article 4). Developed countries are obliged to contribute to climate finance and to take the lead in emissions reductions. In contrast, the *Agreement* commits all countries to report their emissions, publish their Nationally Determined Contributions (NDCs) and *encourages* all Parties to provide financial support (UNFCCC, 2015). It is a major step that emerging economies like China or India significantly contribute to climate protection (Dröge, 2016).

The long term targets: 1.5°C and carbon neutrality

One of the *Paris Agreement* decisions, that succeeded expectations, can be found in Article 2. The Parties agreed to not only limit global warming to the formerly set 2°C target, but to “pursue efforts to limit the temperature increase to 1.5°C” (UNFCCC, 2015). This follows a major request from the Alliance of Small Island States (AOSIS) and many of the least developed countries, eventually supported by the EU and other developed countries. While analysts like [CAN Europe \(2016\)](#) and [Germanwatch \(2016\)](#) see this as positive progress towards a more effective climate protection, others doubt that the 1.5°C target is even feasible, considering current levels of emissions and ambition as well as available technologies (e.g. [Tol, 2015](#)). The IPCC (Intergovernmental Panel on Climate Change) will perform a special report on the 1.5°C target in 2018, to assess the options of how the target can be reached, in accordance with the expected emission pathways ([Bultheel et al., 2015](#)). In any case, Article 2 highlights the importance of the 2°C target as a threshold which cannot be passed without leading to substantial damages of climate change ([Oberghassel et al., 2016](#)).

Article 4 of the agreement constitutes the commitment to net-zero greenhouse gas emissions in the second half of this century. Although weaker in formulation as speaking of a ‘global decarbonisation’, the message is similar: before the end of the century it is required to reach the *de facto* end of the fossil fuel era (e.g. [Arens et al., 2015](#), [King, 2016](#)). This sends a strong signal to producers, investors and governments, that coal, oil and gas need to be phased-out already in the coming decades [Germanwatch \(2016\)](#).

The NDCs, their review process and transparency mechanisms

Article 4 additionally entails that each Party shall (in contrast to *should*, *shall* means legally binding in UN diplomatic terms) prepare and communicate its NDCs every five years. The NDCs represent a progress towards more liability already in rhetoric as they were formerly known as *intended* nationally determined contributions (INDCs). Over time countries are only allowed to propose more ambitious NDCs. However, the aggregated efforts of all submitted INDCs will not be enough to reach the 2°C, and especially not the 1.5°C target (see [Richter and Brauers, 2015](#)). 2018 is the year of the first global *stock take* (Article 14), which will from then on take place every five years. The official reports (Article 15) are meant to build trust between states and promote compliance with the agreement. Hence, it will become apparent which future pathway the NDCs represent compared to the agreed targets. This creates comparability and responsibility between countries through “naming and shaming”. Additional support in terms of finance, technology and capacity-building will give developing countries more options to increase the level of ambition of their NDCs [Germanwatch \(2016\)](#). This is complemented by Article 13, which improves transparency by obliging not only developed, but all countries to report their national greenhouse gas inventory. Developed countries must in addition publish information on their financial, technology and capacity-building efforts, while this is still optional for developing countries ([Bultheel et al., 2015](#)).

Upscaling of climate finance

Article 2 commits Parties to “mak[e] finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” (UNFCCC, 2015). This represents a strong signal to reconsider investment decisions for governments and the private sector (Bultheel et al., 2015). Article 9.3 states that developed countries should take the lead in climate finance, with Paragraph 54 extending the financial commitment to provide at least US\$ 100 billion each year until 2025 for climate change mitigation and adaptation (UNFCCC, 2015). Although those are positive steps towards an increased availability of climate finance, great deficiencies remain: By not obliging the climate finance to be “new and additional”, the risk remains that funds are being redirected with no additional money being made available for climate change mitigation and adaptation (Roberts and Weikmans, 2015).

The question of legal bindingness

The *Paris Agreement* has to be ratified by at least 55 Parties to the convention, representing at least 55% of global GHG emissions, to enter into force by 2020 (UNFCCC, 2015, Article 21). While this process took more than seven years for the Kyoto Protocol, but it is intended that already in April 2016, at a signing ceremony in New York, enough signatures will be reached (UNFCCC, 2014).

The USA never ratified the Kyoto Protocol, mainly because the Protocol would have had to pass Congress. However, to reach a meaningful global agreement it was essential to make the USA be part of the *Paris Agreement*. Hence, in order to avoid the necessity of approval from Congress two important elements have been exempted from legal bindingness: First, the NDCs themselves must be prepared and published, but they are put into a separate *public registry* (Article 4.12) and therefore their implementation is still subject to national legislation (Wynn, 2015). Second, climate finance commitments are part of the *COP Decision*, which has already been approved by Congress by being part of the UNFCCC. This gives President Obama the opportunity to ratify the agreement only with his *existing president authority* (Bodansky and Day O'Connor, 2015). However, the upcoming elections in the USA could have a big impact on climate protection, as the next president following Obama in January 2017 could reverse that decision. Moreover, at the beginning of February 2016 the U.S. Supreme court decided, to put on hold the central US policy to combat climate change, the Clean Power Plan, a federal regulation to limit CO₂ emissions (Scientific American, 2016). Whether the next president of the United States will be a Democrat or a Republican will have a big influence on the ambitiousness of environmental regulations (League of Conservation Voters, 2016).

Adaptation, loss and damage & capacity building

Adaptation is of particular importance for developing countries, because of their vulnerability to a changing climate. It is the first time that adaptation has been included as a specific global goal in a COP-text (Article 7). The new transparency framework additionally requires all Parties to publish a national communication on adaptation (Article 13; Bultheel et al., 2015). With Article 8, also *loss and damages* have for the first time officially been recognized as important to be addressed. The term *loss and damages* refers to the adverse effects of climate change to which countries cannot adapt, like for instance damages caused by extreme weather events. Although acknowledged, developed countries have ensured that this does not include any liability or responsibility for compensation (Paragraph 52; Wynn, 2015).

The importance of capacity-building in developing countries, so that they are able to comply with new requirements of the agreement, is being recognized by Paragraph 72. A new *Paris Committee on Capacity-building* is being established to “identify

needs, foster cooperation, and ensure the appropriateness” of the 2016-2020 working plans of developing countries ([Bultheel et al., 2015](#)).

Carbon pricing and trading

A missing step on the pathway towards a decarbonised world is to put a price on carbon. Many governments, big corporations and civil society have called out for carbon pricing and a rising number of countries already have, or are currently putting into place a mechanism to price carbon. Yet, there is no global carbon market in reach and no agreement how the price should be levied (proposals include taxes, emissions allowance trading, revenue-neutral carbon fees, etc.; [Farid et al., 2016](#); [Hanson, 2015](#)). The *Paris Agreement* specifies two approaches in Article 6: On the one hand, as a *cooperative approach* a country can trade its overachievement in mitigation outcomes with another country, so that both are able to achieve their NDCs. On the other hand, a *sustainable development mechanism* allows a country to pay another state to reduce its emissions relatively to a somewhat arbitrary counterfactual ([Wynn, 2015](#)). Further principles and guidance of those emission trading mechanisms will have to be developed by the CMA (Conference of the Parties serving as the Meeting of the Parties to the *Paris Agreement*; [Oberghassel et al., 2016](#)).

II. Necessary steps forward within the post-Paris world

Current NDCs would miss the 2°C and especially the 1.5°C target (see above). NDCs are voluntary and not enforceable. This poses uncertainty whether the *Paris Agreement* will deliver on its promises. Another risk lies in the economic costs that a changing climate will impose and what influence that will have on future global ambition and mutual support ([Sims, 2016](#)).

Required increases in the level of ambition

In order to put the world community on track with the 2°C or 1.5°C target, a lot of work is yet to be done. [Climate Action Tracker \(2015\)](#) rate only five INDCs as sufficient, representing solely 0.4% of global emission. Hence, almost all countries have to scale-up their 2025-2030 contributions, so that the target comes within reach. Among them, the major emitters are the USA, China, and the EU, that jointly account for about 50% of global GHG emissions ([World Resources Institute, 2015](#)).

It does not seem like the USA are going to step up their climate protection ambitions substantially in the near future. As stated formerly, environmental regulations face strong resistance and additionally the US Congress and almost half of all states announced their opposition to the pledges for the Green Climate Fund ([Ye and Wu, 2015](#)). Moreover, the majority of Republicans reject the scientific consensus on a man-made climate change. The political game of climate change denial has to be set aside, so that the urgency of today’s actions can be understood by the public ([Krugman, 2015](#)).

China will have to reach an early peak of emissions and an unprecedented growth in renewable energy capacity joint with large necessary financial investments ([Ye and Wu, 2015](#)). Clear actions have to be addressed in China’s 13th Five Year Plan, which the government will publish in the coming months ([Tomlinson and Bailey, 2015](#)).

The EU is currently not on track to meet its promised emission reduction targets until 2030. Nevertheless, ambition has to be increased even further to take a fair share in limiting global warming to less than 2°C. [Climate Interactive \(2015\)](#) calculates that the NDC of the EU would have to be increased from a 40% to a 47% emission reduction target by 2030 compared to 1990 levels. The current EU energy package 2030 would therefore have to be revised and ambitions on creating an

Energy Union increased (Tomlinson and Bailey, 2015). Likewise, this increase in the level of ambition is needed to retain international climate-political credibility as a front-runner, as part of the *coalition of ambition* and also as an intermediary for countries especially hard hit by climate change (Dröge, 2016).

Outlook

There is further diplomacy work to be done by the upcoming COPs: Climate finance has to be specified and rules have to be developed to decide on which projects are applicable; more detailed regulations have to be agreed upon to ensure sensible monitoring for meaningful reporting and verification of emissions and national actions under the transparency mechanisms (e.g. Stern, 2016; Tomlinson and Bailey, 2015).

With the *Paris Agreement*, developed countries pledged to provide \$100 billion annually to the Green Climate Fund, while global fossil fuel subsidies amounted to \$5.3 trillion in 2015; more than 50 times the amount provided to support climate change mitigation and adaptation in developing countries (Coady et al., 2015). At the same time global renewable energy investments were higher than investments in conventional energy (King, 2016) and total clean energy investments on an all-time high, having risen to \$329 billion in 2015 (Bloomberg, 2016).

It is an ongoing debate about the impact of today's low oil prices on CO₂ emissions. (Prices around US\$30 in January 2016 were at a 13-years record low, down by 40% relative to the beginning of 2015). The price reduction may lead to increased fossil fuel consumption while at the same time investments into low-carbon technologies become less attractive. However, it may well turn out, by contrast, that the most expensive oil deposits will remain unexploited leaving the carbon in the ground—exactly what ambitious climate mitigation will eventually need to be about in the upcoming decades (Carbon Brief, 2016).

The coming years and decades will show whether the world continues on a path of subsidizing fossil fuels or whether Paris actually marks a turning point in history towards a decarbonized future. The *Paris Agreement* has the potential power to motivate leaders, and especially the G-20 states, to go forward as role models, to put a price on carbon, and to provide effective climate protection (MCC, 2016).

The *Paris Agreement* will be open for signatures in April 2016 in New York, which should give climate protection policies the next push forward. Signing the *Paris Agreement* represents signing the end of the fossil fuel age. This also means that controversial topics, as carbon pricing, coal phase-out plans, financial and technology transfers etc., will have to be addressed now, and not only as of 2020. This should, however, not primarily be perceived as a burden, since globally huge markets are opening for innovations and future technologies, creating jobs and added value (Kemfert, 2015).

While the *Paris Agreement* is indeed historical in its universality, it should not be seen as reaching the goal, but rather as a starting signal for an increase in global ambition to prevent climate change to reach dangerous levels.

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