



The Paris climate agreement: an initial examination

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The Paris climate agreement: an initial examination

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Abstract

This paper provides an initial examination of the legal structure and content of the Paris Agreement adopted at COP-21 on 12 December 2015. After a brief overview of the negotiations leading to Paris, I analyse the architecture of the Paris Agreement focusing on three main components, namely (1) the goals, (2) the action areas (mitigation, adaptation, loss and damage), and (3) the implementation techniques (information-based: transparency mechanism and global stocktake; compliance facilitation: finance, technology transfer, capacity-building, REDD, linking, sustainable development mechanism; management of non-compliance: non-compliance procedure and dispute settlement). Each component is analysed in turn. The paper concludes with some general observations on the prospects for the Paris Agreement.

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1. INTRODUCTION

Less is more, at least sometimes. The 21st Conference of the Parties to the United Nations Framework Convention on Climate Change ('**UNFCCC**')¹ resulted – against all odds – in the adoption of a 'Paris Agreement', which will be opened for signature on the 22 April 2016.² The Paris Agreement is not perfect, but is more than many of those who have followed the climate negotiations over the years realistically expected.

My purpose here is not to provide a comprehensive analysis of this instrument. That will come in time, once the new Ad Hoc Working Group on the Paris Agreement ('**APA**') and also a number of other Party and 'non-Party stakeholders'³ have provided further details as to both the modalities of the different mechanisms introduced by the Agreement, and the variety of nationally determined contributions and other actions pledged in connection with mitigation and adaptation. However, from the perspective of a lawyer and addressing an audience of lawyers, I thought it would not be without interest to provide an annotated snapshot of the legal architecture of the Paris Agreement.

1 United Nations Framework Convention on Climate Change, 9 May 1992, 31 ILM 849.

2 'Adoption of the Paris Agreement', Draft Decision -/CP.21, 12 December 2015, FCCC/CP/2015/L.9 ('**Decision**'), para 2-3. The Paris Agreement is appended as Annex to the Decision. Note also the clause of provisional application at paragraph 5 of the Decision, and Article 21(1) of the Paris Agreement governing entry into force.

3 See Decision, para 134-137.

After recalling – briefly of course – the context that led to the adoption of the Paris Agreement (2), I will discuss the three mains components of its architecture (3) and, finally, offer some prospective observations by way of conclusion (4).

2. THE ROAD TO PARIS

It was very courageous for France to take on the organisation of COP-21 after the diplomatic (but not sociological) failure of COP-15 in Copenhagen.

Over the years, and particularly after the 1997 Kyoto Protocol⁴ turned the UNFCCC distinction between Annex I and non-Annex I countries into what some have called a ‘Chinese wall’, the main challenge facing the climate change regime has been to bring back major developing countries (China, India, Brazil, South Africa, Indonesia, Korea, Mexico and others) under some form of emission reduction commitments comparable to those applicable to developed countries. Indeed, such non-Annex I countries have no quantified emission-reduction obligations under the Kyoto Protocol and that, in turn, rendered politically difficult for developed countries, and particularly the United States, to enter the bargain. The result was that, as of today, the commitments under the Kyoto Protocol cover not more than 14% of global annual emissions, whereas the main emitters, including China and the United States, which account together for almost half of global annual emissions, were not bound by any clear commitments.

A first attempt to address this issue was made in 2007 at the Bali COP, which launched a negotiation process that was supposed to lead to the adoption of a new instrument in Copenhagen, at COP-15 (2009). This process, entrusted to an *Ad Hoc* Working Group on Long-term Cooperative Action ('AWG-LCA')⁵ was unsuccessful in its end result and came to an end shortly after the 2011 Durban COP, when the negotiation

4 Kyoto Protocol to the United Nations Framework Convention on Climate Change, 11 December 1997, 2303 UNTS 148, compare Articles 3 and Annex B (for Annex I countries) with Article 10 (for non-Annex I countries).

5 ‘Bali Plan of Action’, Decision 1/CP.13, 14 March 2008, doc. FCCC/CP/2007/6/Add.1.

mandate that led to the new Paris Agreement was launched. However, several steps made under the AWG-LCA, including the unloved Copenhagen Accord⁶ and the subsequent Cancun Agreements,⁷ were very influential in shaping the Paris Agreement.

All in all, an observer joining the conversation today would mainly need to know that in December 2011, the COP-17 held in Durban adopted the ‘Durban Platform for Enhanced Action’ (‘ADP’)⁸ which was expected to lead to a ‘protocol, another legal instrument or an agreed outcome with legal force’ ‘applicable to all’ by 2015 at the Paris COP-21. And the ADP did deliver, as discussed next.

3. THE LEGAL ARCHITECTURE OF THE PARIS AGREEMENT

The Paris Agreement has three main components and each of them is a composite array of provisions in the Agreement itself and external related materials that must be understood, technically, as the context of the Agreement in the meaning of Article 31 of the Vienna Convention on the Law of Treaties (‘VCLT’).⁹ Figure 1 summarises the three components graphically.

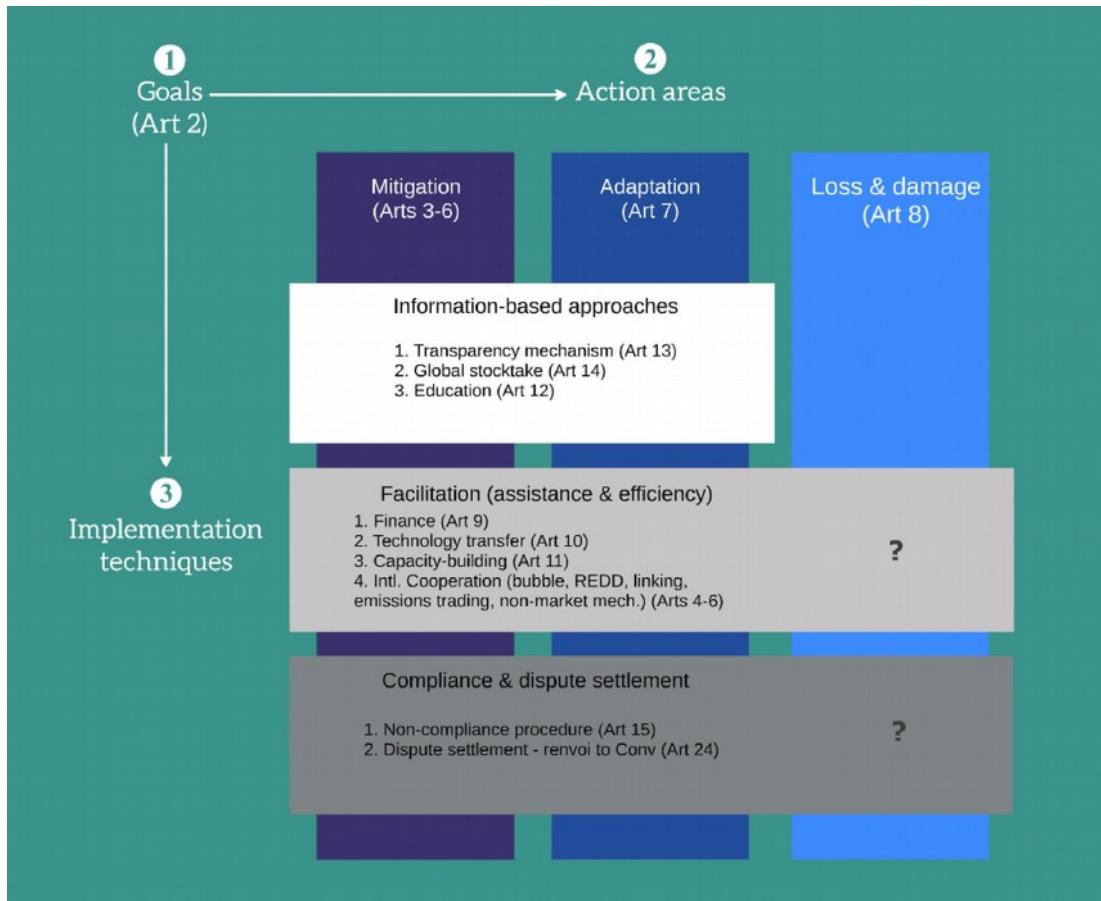
6 ‘Copenhagen Accord’, Decision 2/CP.15, 30 March 2010, Doc. FCCC/CP/2009/11/Add.1 (taking note of it).

7 ‘The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention’, Decision 1/CP.16, 15 March 2011, doc. FCCC/CP/2010/7/Add.1.

8 ‘Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action’, Decision 1/CP.17, 15 March 2012, doc. FCCC/CP/2011/9/Add.1, 2.

9 Vienna Convention on the Law of Treaties, 23 May 1969, 1155 UNTS 331.

Figure 1: The Paris Climate Agreement



Before analysing these components, it must be noted that there is much that cannot be captured in a schematic presentation of the Paris Agreement. From the very preamble of the Agreement, one finds in a condensed manner carefully crafted expressions of the main tensions underpinning the entire text: between developed and developing countries; between more vulnerable countries and the rest; between countries that expect to suffer from measures that ‘respond’ to climate change and the rest; between climate change action and human and collective rights, particularly as regards the fight against poverty (as a paramount objective) and the need for a smooth transition of the work force; between intervention in and conservation of nature; and between science and equity. Some elements of these underpinning tensions will feature in the following analysis, but they would deserve far more detailed treatment.

3.1. Goals of the Paris Agreement

Article 2 of the Paris Agreement sets three goals within the broader objective of Article 2 of the UNFCCC. Most of the attention tended to focus on the figures and, more specifically, on whether limiting the increase in global average temperature to 2 °C is insufficient for some countries and, more specifically, whether a target of a 1.5 °C increase would be more appropriate. Behind this discussion lies a tension between science and equity. From an equity perspective it seems clear that 1.5 °C would be preferable, but such a target would have complex signalling effects because, scientifically, it looks extremely difficult to achieve¹⁰ and, perhaps unrealistic. Selecting it as the only target could have placed the entire Agreement under a different – mostly aspirational – light rather than as a truly regulatory instrument. If the Agreement was meant to send a clear signal to producers and consumers as to the need to shift from a fossil-fuel based economy to a decarbonised one (although the term carbon neutrality was in the end not mentioned), both targets had to feature. That was the solution eventually reached, with Article 2(1)(a) stating that the objective is to hold the increase ‘well below 2 °C [...] and to pursue efforts to limit the temperature increase to 1.5 °C’.

Moreover, and very importantly, Article 2 unravels or, more accurately, ‘enhances’ the objective of the UNFCCC (which was merely the ‘stabilization of greenhouse gas concentrations [...]’) by adding without limitation (as indicated by the term ‘including’) ‘the increasing ability to adapt to the adverse impacts of climate change’ (para (b)) and to ‘mak[e] finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development’ (para (c)), which signals a shift in investment from ‘brown’ to ‘green’.

Paragraph (2) of Article 2 places these goals in the light of equity and the principle of common but differentiated responsibilities and respective capabilities (‘**CBDR**’). This principle was not present in the decision launching the Durban platform, but it has become unavoidable in climate change negotiations. Of note is the fact that the two other key principles of Article 3 of the UNFCCC (precaution and inter-generational equity) are not re-stated. Only the preamble of the Agreement refers back to the principles of the UNFCCC, but, again, it only singles out CBDR. It may be that climate change is no longer a matter of precaution but one of prevention – preventing an acknowledged risk.

¹⁰ See C. Carraro, E. Massetti, ‘The Improbable 2 °C Global Warming Target’, in Vox, 3 September 2009, available at: www.voxeu.org/index.php?q=node/3940 (accessed 15 December 2015).

The diversity of goals is not merely exhortatory. It is taken up in the two other components of the Agreement, namely the obligations in each action area and the implementation techniques.

3.2. Action areas

The Paris Agreement sets three main action areas, two of which – mitigation (Articles 3-6) and adaptation (Article 7) – are given particular weight, whereas the third – loss and damage (Article 8) – is more circumscribed, and perhaps even confined within narrow bounds.

3.2.1. Mitigation

The key area of action that the Paris Agreement was expected to – and did – address is mitigation. But mitigation is also the ‘soft belly’ of the Agreement, where the entire system rests on a soft structure of ‘nationally determined contributions’¹¹ or ‘NDCs’ (Articles 3 and 4) set by States parties and to be compiled in a flexible ‘public register’ (Article 4(12)). States can thus choose their level of ambition subject to two requirements, namely the regular updating – at least every five years (Article 4(9)) – and an obligation of non-regression (Article 4(3)). The latter is new and signals what perhaps will become a major new principle of international environmental law in the years to come. This soft structure, which recalls the pledges made by States after Copenhagen and anchored in the Cancun Agreements, was important both politically and legally. From a political standpoint, States get to choose their level of ambition, which allows great room for differentiation in accordance with CBDR. That was part of the price to bring high emitting developing countries under the regulatory system and it may potentially entail – given the non-regression requirement – that States will start by setting unambitious NDCs.¹² Legally, NDCs will arise frequently from the targets already set in domestic or European law, which gives them higher (signalling) impact on the private sector. In

¹¹ These have been until now referred to as ‘intended nationally determined contributions’ or ‘INDCs’ which were to be submitted by States – and indeed very largely submitted – in accordance with the Decision 1/CP.19, para 2(b), adopted at the Warsaw COP. These covered more than 90% of global annual emissions but the reductions pledged fell short of the level of ambition necessary to reach the 2 °C, let alone 1.5 °C, as recognized by the Decision, para 17.

addition, they are anchored in a provision of the Paris Agreement, and they may qualify under international law as both a binding unilateral act and as a ‘subsequent agreement’ (Article 31(3)(a) VCLT) interpreting provisions of the UNFCCC and the Paris Agreement.

The specific contents of NDCs are yet to be specified. Those submitted before Paris (under the system designed to this effect at the Warsaw COP) were quite diverse in nature and content. The Paris Agreement recognises the need for clarity and transparency (Article 4(8)) and the Decision adopting the Agreement has entrusted the APA with the task of providing guidance to this effect to be adopted by the Meeting of the Parties of the Agreement (‘**CMP**’).¹³

Beyond individual NDCs, one major discussion concerned the overall trend in global emissions and the need to reach carbon neutrality sometime in the second half of the XXIst Century. That requires ‘peaking’ emissions as soon as possible, with more time given to developing countries as a matter of CBDR, and then achieving significant reductions so as to reach ‘balance’ between emissions and removals (Article 4(1)). The Decision ‘invites’ Parties to communicate by 2020 ‘long-term low greenhouse gas emission development strategies in accordance with Article 4, paragraph 19’ (para 36), which will be published on the Secretariat’s website. Underpinning the term ‘balance’ lie important questions of equity (who carries what burden on the future equilibrium, if and once the historical emissions and development arguments have faded away) as well as of geo-engineering. Soft geo-engineering, through afforestation, reforestation, reduced deforestation and forest enhancement, is clearly encouraged by the Agreement (Article 5) but there are more intrusive methods, such as ocean fertilisation (oceans are the most important carbon sink), which the Agreement does not seem to exclude.¹⁴

12 A technical point in this connection relates to the difference between INDCs and NDCs. According to the Decision, for those States that have already submitted INDCs, these will count as their first NDCs ‘unless that Party decides otherwise’ (para 22). It is unclear whether a country (perhaps after a change of government) may scale back its INDC in setting its first NDC or, in other words, whether the non-regression principle applies already in the transition from INDCs to NDCs. This may well be a purely academic point. That will become clear in the course of 2016.

13 Decision, para 26-28. The APA is also tasked with developing guidance for accounting for Parties’ NDCs (Decision para 31, Agreement Art 4(13)).

14 Note, however, the moratorium on ocean fertilization introduced under the Dumping Convention.

The Agreement calls for a variety of international cooperative mechanisms, both market (e.g. REDD-plus, linking through the circulation of internationally transferred mitigation outcomes or ITMOs, a project-based mechanism) and non-market based. I will refer to them in connection with implementation techniques.

3.2.2. Adaptation

Article 7 of the Agreement provides for action on adaptation. Over the years, the political profile of adaptation has gained in importance, particularly since the 2010 Cancun Agreements, which set up a Cancun Adaptation Framework. The Paris Agreement can be seen as a culmination of these profile-raising efforts. Adaptation is now one of the three goals in Article 2 and a specific provision (Article 7) is devoted to it.

Significantly, adaptation is now envisioned as a measurable goal, with Article 7 requiring the adoption by each country of adaptation plans (paragraph 9) and emphasising not only that adaptation efforts by developing countries are to be ‘recognised’ (paragraph 3) but also that they are to be communicated (paragraph 10), recorded in a public registry (paragraph 12) and even included in the global stocktake contemplated in Article 14 of the Agreement (paragraph 14).

Another important point is the connection between, on the one hand, adaptation efforts and, on the other hand, its potential implications from the perspective of social development. Adaptation efforts may potentially require widespread governmental intervention, including population displacement and relocation. Article 7(5) cautions against the possibility that adaptation may become synonymous of intrusion and social engineering. It calls for appropriate ‘consideration of vulnerable groups, communities and ecosystems’ and for ‘integrating adaptation into relevant socioeconomic and environmental policies and actions’. The parameters highlighted in paragraph 5 are relevant not only in the relations between governments and their populations, but must also be taken into account by relevant United Nations bodies and agencies in their development work. After all, the conceptual boundary between ‘adaptation’ and ‘development’ is becoming increasingly blurred.

3.2.3. Loss and damage

Another conceptual boundary difficult to draw is that between adaptation and loss and damage, as characterised in Article 8 of the Agreement. In theory, adaptation is a preventive strategy aimed to avoid as much as possible the negative consequences of

climate change whereas loss and damage is geared towards coping with the damage that cannot be avoided. In other terms, adaptation is (still) about prevention whereas loss and damage is about response (and potentially reparation). Another way to see it is that adaptation is a long-term process whereas loss and damage is about disaster response.

In practice, however, aside from the question of reparation, which is expressly excluded from loss and damage, not much daylight separates both conceptual categories. Indeed, the resilience and vulnerability reduction sought through adaptation plans encompasses responses to extreme weather events and slow onset events. The type of early warning systems and emergency preparedness plans referred to in Article 7(4) are likely to feature in any proper adaptation plan. This is not a purely conceptual point to the extent that the implementation measures (including the finance) set out in the Agreement only apply expressly to adaptation (Article 7) and not to loss and damage (hence the interrogation signs in Figure 1 above).

Two important questions in connection with loss and damage are compensation for the loss already caused and climate change-related displacement. None is expressly mentioned in Article 7, but the Decision introduces two clarifications. Displacement relating to the adverse impacts of climate change is expressly contemplated in paragraph 50 of the Decision, according to which the COP entrusts the Warsaw International Mechanism on Loss and Damage with the setting up of a task force to develop, in collaboration with other bodies ‘recommendations for integrated approaches to avert, minimize and address displacement related to the adverse impacts of climate change’. This is a very welcome development and contrasts with the laconic and firm rejection of the connection between loss and damage and liability,¹⁵ a point on which the United States were adamant.

* *

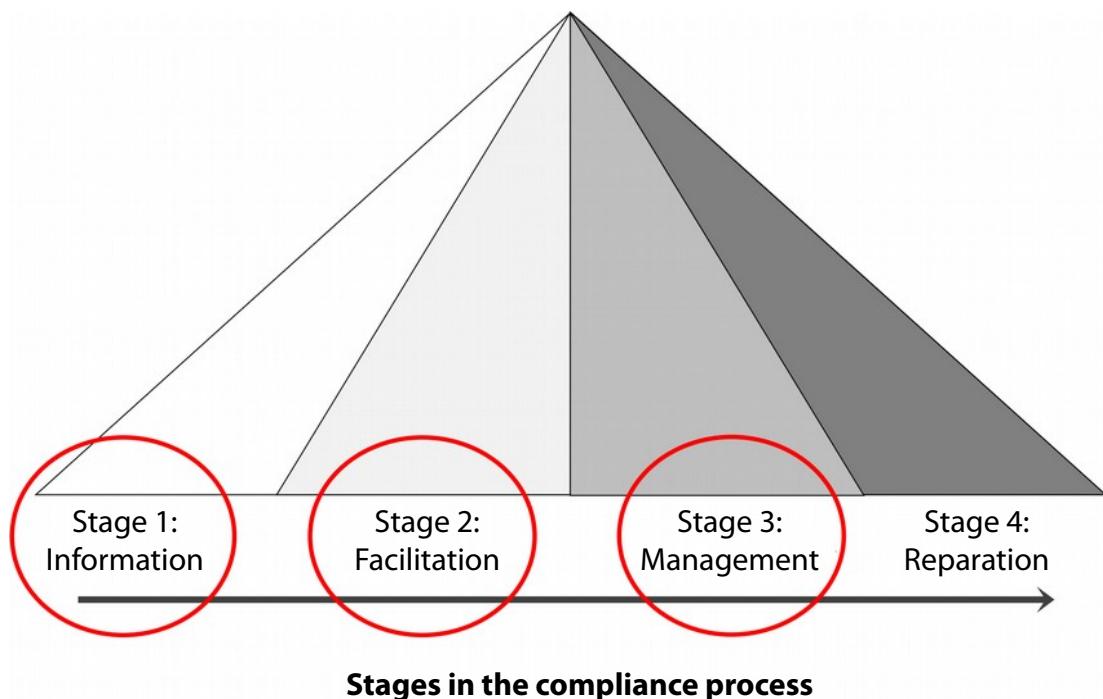
The implementation machinery relating to these three action areas is not the same. Whereas mitigation and adaption share a great deal, the situation of loss and damage seems rather confined.

15 Paragraph 52 of the Decision states that ‘[the COP] *[a]grees* that Article 8 of the Agreement does not involve or provide a basis for any liability or compensation’.

3.3. Implementation techniques

The main innovation of the Paris Agreement lies in its implementation techniques and, particularly, the ‘enhanced transparency framework for action and support’ established by Article 13. This mechanism, the first of its kind in global environmental governance, is the embodiment of the approach, followed since the launching of the ADP in 2011, according to which emission targets would be set domestically and measuring, reporting and verification (MRV) would be organised at the international level. It is, of course, not the only technique, as the Agreement also contemplates many others. For analytical purposes, I will make a distinction between information-based techniques (3.3.1), facilitative techniques (3.3.2) and the management of non-compliance (3.3.3). Figure 2 illustrates the main location of these techniques within the overall compliance process:

Figure 2: Implementation techniques¹⁶



¹⁶ Figure adapted from P.-M. Dupuy and J. E. Viñuales, *International Environmental Law* (Cambridge University Press, 2015), p. 238.

3.3.1. Information-based techniques

The Paris Agreement provides for three techniques that can be understood as information-based in that they not only rely on information but their very purpose is to provide informational clarity in the short or the long term. Aside from the important emphasis – already present in the UNFCCC – placed on education (Article 12), the Paris Agreement introduces two novelties, which are interconnected. The first, provided for in Article 13, relies on public pressure (perhaps a form of ‘naming and shaming’) to nudge States into taking action not only in connection with mitigation and adaptation but also with respect to assistance. The second, contemplated in Article 14, takes the form of a global stocktake, which is less geared towards compliance and more towards the overall effectiveness of the climate change regime.

Enhanced transparency framework for action and support – Article 13 establishes an international mechanism of measuring, reporting and verification of the action/support of individual States. This mechanism can be characterised by reference to its nature, purpose, the information it is expected to gather, and the way in which it will process it.

The perceived intrusiveness of an international MRV mechanism led to strong resistance, particularly from China and India, who have resisted such an approach since the negotiations that fail to reach a Copenhagen Protocol. Unsurprisingly, in Paris, this question remained open until the very end. The working draft of the agreement circulated on the last Friday of COP-21 still contained, in its corresponding provision (Article 9), three options for paragraph 1. The underpinning tension related to the extent of differentiation in connection with transparency. The final wording is a compromise among these options. Reference to the ‘robust’ and ‘unified’ character of the mechanism, as well as rigid differentiation between developed and developing countries were left out. The agreed paragraph 1 applies to all countries but it stresses its inherently flexible nature and the need to account for Parties’ different capacities. The nature of the mechanism is further characterised in paragraphs 2 and 3, which refers to the needs of developing

countries¹⁷ and less developed countries, and stresses the fact that the mechanism is to be implemented in a ‘facilitative, non-intrusive, non-punitive manner, respectful of national sovereignty, and avoid placing undue burden on Parties’ (para 3 *in fine*).

The purposes of the mechanism are aligned with their focus on ‘action’ and ‘support’. On action, the mechanism aims at tracking progress on a Party’s ‘individual’ progress in achieving their NDCs (under Article 4) and on Parties’ (no reference to ‘individual’) progress on adaptation (under Article 7, hence excluding actions under Article 8). On support, the mechanism aims to provide clarity as to the support ‘provided’ and ‘received’ by ‘individual’ Parties under a range of headings, namely mitigation (Article 4), adaptation (Article 7), finance (Article 9), technology transfer (Article 10) and capacity-building (Article 11). The absence of loss and damage (Article 8) in this enumeration is conspicuous. Transparency on both action and support is to feed the global stocktake contemplated in Article 14 of the Agreement.

As a rule, communications by Parties must be made ‘no less frequently than on a biennial basis’.¹⁸ The information to be communicated is organised according to the type of Party. Importantly, all Parties are to provide information on mitigation (they ‘shall’ do so under Article 7(7)) and adaption actions (they ‘should’ do so under Article 7(8)). In addition, developed country parties ‘shall’ (and other parties that provide support – e.g. China – ‘should’) report on financial, technology transfer and capacity-building assistance (Articles 9, 10 and 11) given to developing country parties (Article 7(9)). The latter ‘should’ provide information on the support received under these headings (Article 7(10)). Again, the headings are defined by reference to their specific provisions, hence excluding loss and damage in Article 8 from the picture.

Part of the information thus reported (that under Article 7 paragraph (7) and (9) but not that under paragraph (8)) is to be subject to a ‘Technical expert review’ characterised in the Decision. This is another area where there was disagreement until the very end. Two options remained open. One option envisioned a more comprehensive review leading to the publication of a report highlighting areas for improvement and even

¹⁷ Paragraph 90 of the Decision further emphasises this point: ‘[the COP] *decides* that, in accordance with Article 13, paragraph 2, of the Agreement, developing countries shall be provided flexibility in the implementation of the provisions of that Article, including in the scope, frequency and level of detail of reporting, and in the scope of review, and that the scope of review could provide for in-country reviews to be optional, while such flexibilities shall be reflected in the development of modalities, procedures and guidelines referred to in paragraph 92 below’.

¹⁸ Decision, para 91.

compliance, and to be discussed by the CMP. The other option introduced a rigid distinction between the review of information from developed countries ('robust technical review process' with conclusions on compliance) and from developing countries (a more diluted review process taking into account the level of support received by the relevant developing country). Article 13, paragraphs (11) and (12), provides for a middle ground where 'implementation and achievement' are indeed assessed but in the light of the flexibility and differentiation built-in in Article 13. Further modalities and procedures are to be developed by the APA under certain specified parameters.¹⁹

Global stocktake – As noted above, the idea of a global stocktake has less to do with compliance and more with effectiveness. At COP-21 States (and, frankly, everyone) were very concerned by the fact that INDCs so far announced, although they cover most the greenhouse gas emissions and emitters, still fall short of the 2 °C. Paragraph 17 of the Decision 'noted with concern' that:

'[T]he estimated aggregate greenhouse gas emission levels in 2025 and 2030 resulting from the intended nationally determined contributions do not fall within least-cost 2 °C scenarios but rather lead to a projected level of 55 gigatonnes in 2030, and also notes that much greater emission reduction efforts will be required than those associated with the intended nationally determined contributions in order to hold the increase in the global average temperature to below 2 °C above pre-industrial levels by reducing emissions to 40 gigatonnes or to 1.5 °C above pre-industrial levels by reducing to a level to be identified in the special report referred to in paragraph 21 below'

For the climate change regime to be effective overall, a focus on the 'trees' (through the transparency mechanism) should not displace the more important overall view of the 'forest' (the overall stock of greenhouse gases in the troposphere as well as the ability of States to cope with the impact of climate change). The global stocktake envisioned in Article 14 addresses this question.

This global stocktake is to take place periodically (every 5 years, starting in 2023) under modalities still to be defined by the APA.²⁰ The APA has also been entrusted with the task of identifying the relevant sources of information to generate this global stocktake. Paragraph 100 of the Decision mentions some of them, including communications from the

19 Decision, para 92-98.

20 Decision, para 102.

Parties and the work of the Intergovernmental Panel on Climate Change ('IPCC'), but the list is non-exhaustive. This raises a quality control question, which has already been faced by the IPCC in the context of bitter accusations of bias or unreliability.

Article 14 provides for what can be called an 'information loop' in that, as I mentioned earlier, the communications from the Parties inform the global stocktake and, in turn, the latter is to inform the level of ambition to be displayed in future NDCs by Parties (Article 14(3)). The system highlights not only the importance of the science and policy interface, most notably between the IPCC and the UNFCCC/Paris Agreement, but also the need for environmental agreements to have internal scientific bodies capable of processing scientific information in a way that meets the needs of the policy instrument.²¹

3.3.2. Facilitation through assistance and efficiency

The Paris Agreement does not break new ground in connection with facilitation of compliance, whether through assistance or efficiency techniques, as it largely (and justifiably) relies on already existing mechanisms.²² However, it does contain a number of potentially important upgrades ranging from a duly anchored REDD-plus mechanism, to a call for 'linking' among different domestic systems, or to a new project mechanism of general application. The Decision entrusted the APA with developing the operational details of these mechanisms, a task that will be carried out over the next years. But we can already at this stage single out a number of elements that deserve particular attention in connection with compliance facilitation through assistance and efficiency.

Compliance through assistance – A key debate during the negotiations was the one relating to financial assistance. I have already noted that assistance is identified as one of the three goals of the Paris Agreement (Article 2(1)(c)) and that obligations of assistance are subject to a sophisticated transparency mechanism established under Article 13. But who should pay, the nature of the funds (public or private, and among the latter those specifically leveraged through public intervention), their specific allocation of such funds and, of course, the amounts to be mobilised were also extremely important issues.

21 Decision, para 101.

22 See e.g. Article 9(8) of the Paris Agreement and Decision, para 59-60 (referring to four existing financial mechanisms as the mechanisms of the Paris Agreement, and potentially a fifth one, which is currently linked to the Kyoto Protocol); Article 10(3) of the Paris Agreement and Decision, para 67 (reliance on the Technology Mechanism under the UNFCCC).

Starting with the latter, Article 9 does not refer to any specific figure, but paragraph 54 of the Decision introduces two clarifications, namely that a new collective quantified goal will be set by the CMP prior to 2025 and that the ‘floor’ will be the figure, already present in previous negotiations, of US\$ 100 billion per year. Moving to who should pay, the Agreement clearly bestows the obligation on developed country Parties (Article 9(1)), noting that other Parties (e.g. China) are ‘encouraged’ to provide such assistance (Article 9(2)). Funds may – and will – come from both public and private sources, but Article 9 paragraphs (3) and (7) emphasise public funds and private funds mobilised (leveraged) through public intervention.²³ The allocation of funds is to follow three parameters, namely a balance between mitigation and adaptation (Article 9(4)), special consideration for more vulnerable States, including by the operating entities of the Financial Mechanism, such as the World Bank and regional development banks (Article 9(4) and (9)), and use by receivers in both mitigation and adaptation (not just the latter, which may be favoured by a developing country).²⁴

Implementation assistance is also contemplated in the form of technology development and transfer (Article 10) and capacity-building (Article 11). Again, this form of support also falls under the remit of the transparency mechanism, which is a major step to ensure its implementation. On technology transfer, Article 10(4) establishes a new Technology Framework in order to conduct technology needs assessments and enhance development and transfer, including through assistance for the early stages of technology development in developing countries. Significantly, although the question of IPRs is not expressly mentioned, paragraph 68(d) of the Decision refers, as part of the new Framework’s mission, to ‘[t]he enhancement of enabling environments for and the addressing of barriers to the development and transfer of socially and environmentally sound technologies’.

Capacity-building was also considered as key, among others because it is a prerequisite for proper accounting and implementation of mitigation obligations. The Decision established a Paris Committee on Capacity-Building tasked among others with managing a work plan over the period 2016-2020 aimed at rationalising capacity-building operations (identifying gaps and eliminating inconsistencies and redundancies).²⁵

23 The scientific body under the UNFCCC is to develop modalities for the accounting of usch resources. See Decision, para 58.

24 Decision, para 53.

25 Decision, para 72 and 74.

Compliance through efficiency – Articles 4, 5 and 6 of the Agreement provide for a number of cooperative mechanisms aimed at facilitating compliance with the Parties' mitigation obligations by rendering such compliance more efficient or less costly.

Some of these mechanisms are already familiar. For instance, Article 4 paragraphs (16)-(18) set up a mechanism similar to the so-called 'European bubble' under the Kyoto Protocol,²⁶ whereby a group of countries may agree to comply with their obligations jointly by setting a common target (NDC) in addition to their own country target. In a context where there is no top-down quantified allowance, as in the Kyoto Protocol, such a mechanism seems less pressing, as each country can decide its own level of ambition reflected in its NDC. But it may be useful nevertheless because of the non-regression principle. Thus, if a country is likely to fall short of its own NDC, it may join with a country that has ample room for manoeuvre (which may be the case for a variety of reasons, including an economic slowdown) to jointly comply with the common NDC.

Similar considerations apply to the mechanism established under Article 6(4)-(7) 'to contribute to the mitigation of greenhouse gas emissions and support sustainable development'. This sustainable development mechanism ('SDM') will share features of both the joint implementation ('JI') and clean development mechanisms ('CDM') under the Kyoto Protocol.²⁷ As there is no longer a Chinese wall between Annex I and non-Annex I country (a key feature distinguishing the JI from the CDM), projects under the SDM may operate in any State Party with the only – obvious – caveat that reductions counting for the NDC of one country to the transaction cannot be counted again for compliance with the NDC of the other country. In this regard, the SDM operates as the JI under Kyoto, but its administration is likely to rely on former CDM institutions.²⁸

Two more innovative mechanisms are those envisioned in Articles 5 and 6(2)-(3) of the Agreement. The first has received great attention over the last years and concerns reduced emissions not from afforestation or reforestation (planting new trees) but from avoided deforestation or enhancement. The so-called REDD-plus has now received an anchor in a treaty provision. The details of its operation and, specifically, the very important question of finance are addressed in paragraph 55 of the Decision, which '[r]ecognizes the importance of adequate and predictable financial resources, including for results-based payments' and 'encourages [...] support from public and private, bilateral and multilateral

26 Kyoto Protocol, art 4.

27 Kyoto Protocol, arts 6 (Joint Implementation) and 12 (Clean Development Mechanism).

28 The detail of the system is to be developed by the scientific body of the UNFCCC and recommended for adoption by the Paris CMP. See Decision, para 38-39.

sources, such as the Green Climate Fund, and alternative sources in accordance with relevant decisions by the Conference of the Parties'. Interestingly, the anchor provided in Article 5 goes beyond REDD-plus and could also cover an array of payments-for-ecosystem-services which, until now, had no specific anchor in a treaty provision.²⁹

The other innovative mechanism relates to the so-called 'linking' of domestic mitigation policies. Normally, a linking process consists of recognising the emission reduction units from a domestic/international emissions trading system in another system. The caps are thus enlarged and the efficiency gains increased. Examples include the linking between the European and Norway's, Iceland's and Lichtenstein's emissions trading systems or that between the systems in California and Quebec. Article 6(2)-(3) allows for this type of linking on a voluntary basis. In other words, there is no requirement for a Party to link its system with that of another Party. In addition, Article 6(2) is formulated in a sufficiently broad manner so as to allow for linking of different types of domestic mitigation policies.³⁰ Such 'internationally transferred mitigation outcomes' (or 'ITMOs') are a recognised approach to comply with NDCs if performed in accordance with guidelines still to be adopted by the CMP.³¹

3.3.3. Management of non-compliance

The final component to be noted concerns situations where the information available suggests that, despite the many means to facilitate compliance contemplated in the Agreement, a State Party finds itself in a situation of non-compliance.

In international environmental law, many treaties, starting with the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer,³² have established non-adversarial

29 See R. Pavoni, 'Channeling investment into biodiversity conservation: ABS and PES schemes', in P.-M. Dupuy and J. E. Viñuales (eds.), *Harnessing Foreign Investment to Promote Environmental Protection: Incentives and Safeguards* (Cambridge University Press, 2013), pp. 206-227.

30 See D. Bodansky, S. Hoedl, G. E. Metcalf, R. N. Stavins, 'Facilitating Linkage of Heterogeneous Regional, National, and Sub-National Climate Policies Through a Future International Agreement', *Discussion Paper, Harvard Project on Climate Agreements, Belfer Centre for Science and International Affairs*, November 2014.

31 As for SDM, the Decision tasks the scientific body of the UNFCCC with developing such guidelines and recommending their adoption by the Paris CMP (para 37). Great emphasis is placed on the need to ensure integrity and avoid double counting.

32 Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 3.

mechanisms to ‘manage’ situations of non-compliance. The Kyoto Protocol itself has one such mechanism, established under Article 18 of the Protocol, and soon to face its ultimate test in connection with compliance with States’ quantified obligations under Kyoto’s first commitment period (2008-2012). The Paris Agreement provides for the establishment of a *non-compliance mechanism* managed by a Committee (Article 15(2)) consisting of 12 experts elected by the CMP in accordance with some distributional parameters.³³ The operational rules and modalities governing the Committee’s activities will be developed by the APA and adopted by the CMP.³⁴

Last but not least, Article 24 of the Agreement refers to the *dispute settlement* clause in Article 14 of the UNFCCC as applicable *mutatis mutandis* to the Agreement. This clause, which opens the possibility for States to accept the compulsory jurisdiction of the International Court of Justice or of an arbitration tribunal, has never been used. That explains why I preferred not to highlight, in Figure 2, traditional dispute settlement as an element of the Agreement. In addition, as already noted, paragraph 52 of the Decision excludes the use of Article 8 (loss and damage) as a basis for liability or compensation.

* *

The components reviewed in the foregoing paragraphs are, for the most part, under construction. In some cases, no concrete steps have been taken yet to translate them into institutions. However, examining them as a set of interrelated design features sheds light on the overall architecture of the Paris Agreement, with its soft belly and sophisticated implementation approach, with its comprehensive reach and, at the same time, significant room for differentiation. Less formalistic than the Kyoto Protocol, which provided for an international cap and top-down quantified emissions reduction obligations for Annex I countries, the Paris Agreement asks from States – all States – what they can do to fight climate change, and it provides the necessary steps to make States realize what is happening at the aggregate climate level through their contributions or lack thereof. In the following paragraphs, by way of conclusion, I would like to place the Paris Agreement within its broader social function, which is not to ‘bind’ States but to ‘influence’ the levers of human behaviour.

33 Decision, para 103.

34 Decision, para 104.

4. PROSPECTIVE OBSERVATIONS

A former professor I had as an undergraduate student used to say that one can influence behaviour through three fundamental levers of human action, namely coercion, interest and virtue.

Coercion, translated in the present context as command-and-control regulation is part of the tool-kit of any State, and it will continue to feature in climate change regulation through a variety of measures such as construction and efficiency standards for mitigation, or zoning requirements for adaptation. Coercion is clear, but not necessarily efficient (as efficiency gains arising from trading are not permitted) and, sometimes, not even effective (as compliance sometimes requires knowledge and resources, without which a system, however coercive, will not be effective). Interest has become a major approach in regulatory intervention. Setting rules that create the desired economic incentives in the regulated entities is a subtle and important art that has been embodied in a variety of mechanisms from emissions trading systems, to taxes internalising negative externalities (e.g. for carbon dioxide emissions), to subsidies compensating for relative positive externalities (e.g. for renewable energy). Virtue relies on education, understanding and civic commitment. An action that entails major negative consequences for the environment is expected not to be performed, however profitable, if such consequences are understood. Perhaps more realistically, virtue or education is expected to provide a more solid political basis for political movements that pay due regard to environmental protection.

The Paris Agreement relies on a careful combination of these three levers of action. It seeks to be realistic more than aspirational, as conveyed by the mitigation goal stated in Article 2(1)(a), so as to signal the intention to coerce or incentivise, rather than only appealing to a feeling of justice. It organises implementation through a blend of social coercion (providing for individual transparency, for everyone to see who contributes what exactly to the common problem) and interest (providing for support, both through assistance and efficiency), and laying the foundations for understanding (through education and a global stocktake). It seeks, in fact, to address the roots of the human behaviour that is causing climate change, but not through a single prism that would see humans as either subjects to coerce, rational actors to incentivise, or moral agents to persuade, but as humans who benefit and suffer from the same behaviour, who may be fair and unfair, rational and irrational, obedient and refractory.

As such, it is a realistic instrument and, because of its imperfection, one that is much closer to the human topography than its falsely ambitious predecessor signed in Kyoto. For that reason, it stands a better chance to work. This is one of those times when less is more.