Climate policy: road works and new horizons - an assessment of the UNFCCC process from Lima to Paris and beyond

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1 Introduction

The annual Conferences of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol (COP-20/CMP-10) in 2014 took place in Lima, Peru, from 1-12 December. The significance of the event must be assessed in the light of its main task: preparing for the next annual conference 2015 in Paris. The next major climate summit (COP-21) is scheduled to deliver a comprehensive climate agreement according to the Durban Platform formulated in 2011.

In the run-up to the conference some developments had taken place that seemed to change the dynamics of the process. Most importantly, the usual roles of the EU versus the US and China were somehow reversed. The Union adopted comparatively modest climate policies that fell short of the level of ambition expected, whereas the presidents of China and the US, in a surprise bilateral move, had announced plans that exceeded expectations. Notwithstanding the fact that these plans were non-binding and not ambitious enough to keep emission levels below a safe level, the two largest polluters did appear to represent the spearhead of climate protection. This certainly lent much more credibility to the approach those countries advocated, which is characterised by voluntary contributions instead of legally binding commitments. It was also the first time ever the two largest polluters had presented such a major joint initiative, marking a widely applauded departure from their historical finger-pointing.

The mood of most negotiators was therefore slightly upbeat when they arrived in Lima. The Climate Summit initiated by UN Secretary General Ban Ki-moon in September had demonstrated that climate change ranked amongst the top priorities in world affairs. The

accompanying climate march in New York, which had attracted 400,000 people from all over the United States, had sent a clear signal that people in the US were expecting the US Government to play a positive role in the negotiations. The continued urgency of tackling climate change decisively was underlined by the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Furthermore, the initial capitalisation of the Green Climate Fund had almost reached the aimed-for target of at least US\$10 billion. All these developments pointed to a constructive conference in Lima, putting the negotiations on a firm track towards adopting an agreement in Paris in 2015.

However, after the first week in Lima it became clear that COP-20 would not enter the history of climate diplomacy as one of the more constructive meetings. The conference was, despite the US/China announcements by high profile representatives, characterised by a continued deep division at the working level between key players and groups from the former so-called 'developed' and 'developing' world (enshrined in the division of Annex I and non-Annex I countries of the UNFCCC). This became apparent especially in the discussions on differentiation and the role of 'loss and damage' in the forthcoming agreement, which pitted - as in the very old days - log-headed negotiators from each group against each other. The negotiations thus took 32 hours longer than planned and ended on Sunday morning at 1.22 am - a considerable prolongation even for seasoned negotiators.

As a consequence, the conference failed almost completely to resolve the tasks it was supposed to do in order to prepare the last round of negotiations before COP-21 in Paris 2015. (See also the comment by M Hedemann-Robinson in the Current Survey in this issue.) In the final hours of Sunday morning the conference managed to adopt the 'Lima call for climate action' and attached as an Annex the 'Elements for a draft negotiating text' that had been

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the subject of intense negotiations. The conference did so without narrowing down the considerable number of multiple options, thus leaving the negotiators with a formidable task to resolve in the next year. This article is based on an early assessment by the Wuppertal Institute from December 2014, which has been extended in order to allow a deeper analysis of the consequences for COP-21 in Paris.

2 Negotiating a new climate agreement

The Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) was at the centre of the negotiations since it aims to develop 'a protocol, another legal instrument or agreed outcome with legal force under the Convention applicable to all Parties', which is to be adopted at this year's conference in Paris and to be implemented from 2020. Several key issues needed to be clarified in Lima, in particular how exactly countries will participate in the new agreement, the differentiation among countries and transparency. Last year's conference in Warsaw had decided that countries should submit their intended nationally determined contributions (INDCs) to the Paris Agreement early in 2015, but had failed to provide further guidance.

The Lima Conference was therefore tasked with providing guidance on the scope of INDCs, what information countries would be required to provide alongside their INDCs to enable their assessment, whether there would be an international review of the INDCs prior to the adoption of the Paris Agreement and what this assessment would look like. In addition, the Lima Conference was supposed to develop a first draft of a negotiating text for the new agreement.

However, only very few of those tasks were actually completed in Lima owing to disagreements over the respective roles of the so-called 'industrialised' and 'developing' countries, something which has plagued the climate regime from the beginning. 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

By contrast, in particular the group of 'like-minded developing countries' (LMDCs), which includes China and India, some other Asian countries such as Pakistan, OPEC countries such as Saudi Arabia as well as the left-leaning Latin American countries such as Bolivia and Venezuela, has so far strongly resisted any explicit or implicit dissolution of the traditional distinction between the Annexes. They have 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 do their duty in terms of reducing their own emissions and in providing support to non-Annex I countries.

In Lima, this traditional divide once again came to the fore in a number of ways. There was a dispute on whether to include a specific reference to the Convention's principle that countries should contribute in line with their common but differentiated responsibilities and respective capabilities (CBDR-RC), which many negotiators see as a form of shorthand for maintaining the 'firewall'. The USA had therefore insisted on keeping any references to CBDR-RC out of the Durban and subsequent decisions on the ADP. In Lima, industrialised countries were prepared to accept references to CBDR-RC only if they included language that the principle needed to be interpreted in an 'evolutionary' or 'dynamic' manner. However, the LMDCs strongly rejected including any such language, arguing that it would amount to a rewriting of the Convention.

On INDCs, industrialised countries held that contributions should only address mitigation and that all countries should be obliged to offer an unconditional mitigation contribution. By contrast, many developing countries posited that INDCs should also include adaptation and financial, technology and capacity-building support from industrialised to developing countries. They also demanded that mitigation contributions by developing countries should, as has so far been the case, be conditional on the provision of support by industrialised countries. They argued that the need to adapt to the mounting impacts of climate change was substantially taxing their resources, which were consequently not available for emission reduction actions, and recalled Article 4 of the Convention, according to which efforts by developing countries

distinction between Annex I and non-Annex I countries (traditionally 'developing countries') that is laid down in the Framework Convention of 1992. They argue that this distinction is outdated since many non-Annex I countries are nowadays wealthier than many of the traditional industrialised countries and that their contribution to global emissions has also grown rapidly.

¹ Decision 1/CP20 FCCC/CP/2014/10/Add.1 'Lima call for climate action' http://unfccc.int/meetings/lima_dec_2014/meeting/8141/php/view/decisions.php.

² Hermann E Ott, Christof Arens, Lukas Hermwille, Florian Mersmann, Wolfgang Obergassel and Hanna Wang-Helmreich 'A first assessment of the Climate Conference in Lima: COP20 moves at a snail's pace on the road to Paris 2015' (2014) 26(5) **Environmental Law & Management 153–60; http://wupperinst.org/uploads/tx_wupperinst/lima-results.pdf.

depended on the extent to which industrialised countries fulfilled their commitments to provide support.

Many developing countries also demanded specification of volumes and timetables for financial support, which industrialised countries rejected pointing to the budgetary prerogative of their parliaments. Industrialised countries for their part demanded that the donor base should be broadened and that all countries in a position to do so should provide financial support to poorer countries. Whilst the Alliance of Small Islands States (AOSIS), the least developed countries (LDCs) and the Association of Independent Latin American and Caribbean States (AILAC) agreed with industrialised countries that mitigation should be central to all countries' INDCs, the LMDCs maintained that non-Annex I countries should be allowed to offer only adaptation contributions.

Another issue on which the divide between LMDCs and most industrialised countries came to the fore was information requirements for reporting INDCs. What kind of accompanying information would countries need to submit alongside their intended contribution in order to allow other countries (and the public in general) to assess the INDCs? Equally important, would there be an assessment phase for the submitted information under the UNFCCC in the run-up to Paris? The latter would be important in order to assess whether the sum of the INDCs would be sufficient to keep the world below the 2°C target and whether individual countries' INDCs constituted a fair share.

The LMDCs posited that the information requirements for industrialised and developing countries should be differentiated and rejected any international assessment of developing countries' contributions. Most Annex I countries outside the EU suggested a short review phase, which would not be expected to change the proposed contributions significantly. AILAC, AOSIS, the EU and the LDCs proposed a more detailed ex ante review to assess if individual INDCs represented a country's fair share of the overall effort and whether they were collectively sufficient to achieve the below 2°C target. Previously in Warsaw the African Group had proposed an assessment based on a principle-based equity reference framework to review the adequacy of the proposed contributions in terms of ambition, equity and fairness.

A further issue was whether particular groups of countries should be required to adopt particular types of contributions. Developing countries demanded that industrialised countries should adopt legally binding economy-wide emission reduction targets along the lines of the Kyoto Protocol. Industrialised countries in turn maintained that all major economies should be required to adopt economy-wide targets. They conceded that in case

of non-Annex I countries these might be intensity-based rather than absolute targets, but over time all countries should aspire to adopting economy-wide absolute targets.

The Alliance of Small Islands States (AOSIS) also stressed the importance of mandatory mitigation contributions for all major emitters. Brazil tried to find a middle ground by submitting a proposal for 'concentric differentiation'. Brazil envisaged a system of concentric circles, with Annex I countries placed in the middle adopting economy-wide absolute emission targets, and other countries placed in outer circles depending on their respective responsibilities and national capabilities and adopting intensity-based targets, targets defined as a deviation from business as usual, per capita targets or individual actions.3

Further controversies revolved around the timeframe of contributions. The EU, China and others argued that contributions should have 2030 as the target date, highlighting the need to give long-term certainty to investors and the effort required to prepare contributions. By contrast, AILAC, AOSIS, the LDCs and the USA, alongside civil society groups organised in the Climate Action Network, called for five-year cycles in order to prevent a lock-in of low ambition.

A further contentious issue was the scope of the 2015 Agreement. Developing countries requested that adaptation and mitigation should be treated equally in the new agreement, and some of them suggested language on legal parity of the two topics. In particular, AOSIS and the LDCs - the countries most vulnerable to the impacts of climate change - also requested to reference loss and damage specifically from climate impacts that cannot be addressed by adaptation as a stand-alone item (see further on loss and damage below).

Industrialised countries were willing to accept language on the crucial importance of adaptation but rejected language on parity with mitigation. They also continued to maintain their past position that loss and damage should be addressed in the context of adaptation instead of being treated as a separate element. Industrialised countries are afraid that any opening of the loss and damage issue might ultimately lead to their being legally required to pay compensation to developing countries for their past GHG emissions and have hence tried to keep the profile of this issue as low as possible.

As so often in the past, the decision finally adopted by the conference⁴ was pared down to a bare minimum to avoid issues

^{&#}x27;Views of Brazil on the elements of the new agreement' 6 November 2014 http://www4.unfccc.int/submissions/Lists/ OSPSubmissionUpload/73_99_130602104651393682-BRAZIL%20ADP%20Elements.pdf.

^{&#}x27;Lima call for climate action' (n 1).

and respective capabilities, in light of different national circumstances'. This language was lifted verbatim from the Sino—US Agreement and served to paper over the different positions for the moment as it can be read as maintaining the old distinction between the Annexes or as opening up potential differentiation based on countries' individual circumstances.⁵ The decision once again urges developed countries to provide and mobilise enhanced financial support. Instead of urging other countries in a position to do so also to provide support, as Annex I countries had demanded, the decision only

As regards the scope of the INDCs, all parties are explicitly invited to consider including an adaptation component in their INDCs but otherwise the scope is left entirely to the discretion of countries. The decision does not require developed countries also to include finance commitments in their INDCs.

'recognises complementary support by other Parties'.

Concerning the level of the submitted INDCs, each party's INDC is supposed to 'represent a progression beyond the current undertaking of that Party'. This formulation is aimed at installing a ratchet mechanism, where contributions are continually strengthened – and to prevent backsliding behind parties' current pledges. However, the Annex with the advance information requirements did not survive. The decision now contains only one paragraph with some specifications. Instead of requiring parties to provide the listed information, the language is now formulated in a non-binding manner ('information to be provided by Parties ... may include ...'), and the subsequent list is much less detailed than the lost Annex. The list does not require a common timeframe, is less specific on coverage, assumptions and methods, and does not require information on the intended use of markets nor specifications for the treatment of land use, land-use change and forestry.

In addition, the decision does not foresee any international assessment of individual INDCs. The INDCs are merely to be published on the UNFCCC website and only the aggregate level of effort will be assessed, in a synthesis report to be prepared by the Secretariat by 1 November 2015. Since this is only one month before the Paris Conference, any subsequent changes to the INDCs are highly unlikely. On loss and damage, developing countries did not get what they were fighting for since it is not listed as one of the elements of the Paris Agreement. Instead, the decision only welcomes the progress made towards implementation of the 'Warsaw international mechanism for loss and damage associated with climate change impacts (WIM, and see further below).

The subsequent ADP session in February 2015 had the task of producing a formal negotiating text which could be formally communicated to all UNFCCC Parties before May 2015. This is the deadline for the adoption of a Protocol at the Paris conference six months later — if a Protocol is the route Parties eventually decide to follow. The Durban Platform also leaves open the option to adopt 'another legal instrument or agreed outcome with legal force' and so far there has been no rapprochement of views on what legal form the Paris agreement should have. The task of agreeing on a formal negotiating text was completed in Geneva, but essentially only by foregoing actual negotiations and instead allowing each Party to insert its preferred language into the document. The final Geneva text thus runs to 90 pages, with a large number of alternative options on most issues. ^{5a}

3 Enhancing short-term ambition before 2020

In some contrast to the rather entrenched negotiations on a new climate agreement outlined above, the atmosphere in this part of the negotiations was much more constructive. Those two 'workstreams' for the negotiations had been the result of a compromise at COP-17 in Durban (2011), where developing countries had agreed to negotiating a new 'comprehensive' climate agreement under the Convention for the time after 2020 (Workstream 1) — comprehensively meaning that it would not apply only to industrialised countries. Unlike the Kyoto Protocol, this agreement would entail contributions by all countries, varying only in their content but not in their legal form. On the other side of the bargain, industrialised countries had agreed to negotiations on how to increase the ambition of their own mitigation commitments for the time before 2020 (Workstream 2).

Hence, Workstream 2 (WS2) started out as a process mainly to negotiate new and increased mitigation commitments for Annex 1 countries. Urging on the rapid ratification of the second commitment period of the Kyoto Protocol became a second task that was frequently put forward by developing countries. This process so far has not been particularly successful: not one developed country has increased its mitigation commitment as compared to what had been communicated in the Cancún Agreements back in 2010. Quite to the contrary, Japan has backtracked from its earlier commitment and other countries such as Australia and Canada have no policies in place that are nearly effective enough to achieve their pledges. 5b

⁵ Ed King 'US—China chat broke impasse at Lima climate talks' http://www.rtcc.org/2014/12/16/us-china-chat-broke-impasse-at-lima-climate-talks/.

 $⁵a \quad \text{Negotiating text (FCCC/ADP/2015/1) http://unfccc.int/resource/docs/2015/adp2/eng/01.pdf.}$

⁵b Climate Action Tracker 'Country Analysis' http://climateactiontracker.org/countries.html.

However, as a kind of compensation for this failure, the nature of this WS2 has changed significantly and added some novel aspects to the negotiations. WS2 has become a forum of open exchange with a strong push also for developing countries to increase their pre-2020 mitigation ambition. With extensive rounds of technical expert meetings (TEMs), WS2 has established a mode of collaboration new to the UNFCCC process, one which also allows actors from the sub-national level to contribute their experiences.

The big questions for the meeting in Lima were the following: would the innovative form of collaboration within WS2 continue? Would it be possible to advance from the exchange of information to a more action-oriented approach, ie would it be possible to synthesise the outcome of the TEMs and translate them into policy options that are actually taken up by parties?

Given that the Paris Agreement will probably not be sufficient to drive down greenhouse gas emissions to levels compatible with the 2°C limit (let alone 1.5°C), a significant mitigation gap will persist not only before 2020 but also thereafter. The need to continue the efforts for closing this gap was apparent to all parties and they therefore agreed to renew the mandate for the technical examination process. Some parties suggested providing the mandate until 2017 only. Finally, however, the ADP concluded with a mandate to continue the technical examination process between 2015 and 2020, but with an annual review of the progress of the process.

Equally important for a constructive continuation of the technical examination process is the more specific mandate that parties provided for the TEMs. Until now, TEMs had been very broad in content. In Lima the parties agreed to build on the results of earlier TEMs, to go into more detail and to 'focus on actionable policy options'.6 Furthermore, the technical examination process will coordinate with other existing activities such as the Technology Executive Committee, the Climate Technology Centre and Network (CTCN), the Durban Forum on capacity-building, the CDM Executive Board and the operating entities of the Financial Mechanism (Global Environment Facility, Green Climate Fund and Adaptation Fund). This allows the use of synergies and focuses the support through the various mechanisms on those instruments that have been highlighted by the technical examination process, thus ensuring a proliferation of best practice.

The decision also includes provisions for the last stage in the process: implementing mitigation activities. The parties agreed to ask the UNFCCC Secretariat to compile a synthesis of the policy options, including a summary for policy-makers. The idea is to formulate concrete policy options that can then

be picked up by policy-makers and implemented in their respective national contexts.

To encourage this kind of political action, parties encouraged the executive secretary and the president of the Conference of the Parties to convene an annual high-level event on enhancing implementation of climate action. COP President Pulgar-Vidal had hosted a first such event in Lima. The event included contributions from a wide range of stakeholders, including a speech of the Secretary General of the United Nations. Other contributions included civil society representatives, sub-national governments and business representatives. The variety of contributions was exceptional for a formal UNFCCC high-level event.

In contrast to the lack of progress with respect to the post-2020 agreement, discussions under WS2 can be considered more successful. The continuation of the TEMs and an improved focus towards implementation is a very positive development. Negotiations under the UNFCCC dramatically lag behind reality. Positive developments such as the enormous digression of prices for renewable energy technologies and their strong uptake not only in industrialised but increasingly in emerging and developing countries is a dynamic that has not yet spilled over into the hallways of the COP venue. It is therefore more urgent than ever to short-cut the feedback loops of this outside dynamic. An improved and continued WS2 could well be a place at which the positive experiences with climate change mitigation can create resonance within the UNFCCC regime and create a momentum for more ambitious mitigation commitments.

4 Other issues at stake in Lima

4.1 Reducing emissions from deforestation and forest degradation (REDD+)

The previous COP in Warsaw had adopted no less than six decisions on REDD+, finalising the main chapters of the 'rulebook for REDD+'. One outstanding issue on the agenda of the Subsidiary Body for Scientific and Technological Advice (SBSTA) was guidance on environmental and social safeguards. Whilst the EU, Norway and the USA proposed to develop further guidance, many developing countries posited that additional guidance on safeguards was 'premature'. The conference was unable to come to an agreement and ultimately referred the item to the next SBSTA meeting. The REDD+ debate on safeguards thus echoes the debate on the clean development mechanism (CDM), where so far no safeguards at all have been adopted owing to the resistance of many developing countries who maintain that international rules on safeguards would be incompatible with their national sovereignty.

^{&#}x27;Lima call for climate action' (n 1) para 19 'Focus on actionable policy options'. Decision 1/CP20, FCCC/CP/2014/10/Add.1.

4.2 Loss and damage

In 2013, shortly before the COP, supertyphoon Haiyan wreacked havoc in the Philippines, destroying about one million houses and killing more than 7000 people. This year, in the first days of the climate conference, one million people on the Philippines fled from Typhoon Hagupit into the hills in order to escape the forces of nature. It served as a stark reminder that adaptation to the unavoidable impacts of climate changes is, besides mitigation, the second pillar of the climate regime. Many developing countries meanwhile demand that compensation for loss and damage due to climate change is recognised as a separate third pillar. As it becomes increasingly unlikely that the world will stay below a 2°C temperature rise (annual mean globally), the question of who pays for the impacts is gaining more and more relevance.

COP-19 last year in Warsaw had adopted the 'Warsaw international mechanism for loss and damage associated with climate change impacts' (WIM). COP-20 in Lima approved the two-year workplan that had been developed in the meantime and decided on the permanent structure and composition of the executive committee of the WIM. It will be composed of 10 members from Annex I countries (traditionally those providing the financial resources) and 10 members from other countries. Demands for a majority of seats for developing countries suffering from the impacts of climate change were not successful.

However, the main dispute over the issue of loss and damage concerned the demand of developing countries, especially the AOSIS and the most vulnerable countries to include it into the workplan for the Paris Agreement next year. This turned loss and damage into a crunch issue in the final hours and was resolved by way of a typical compromise: the issue is not mentioned in the operative paragraphs of the Lima call for climate action nor in the 'elements' paper attached to it, but instead found its way into the preambular paragraphs of the Lima call (' ... welcoming the progress (on the issue) made in Lima ...'). The press release of the LDC group after COP-20 makes clear that this reference is regarded as a 'clear intention that the protocol, another legal instrument or an agreed outcome with legal force to be adopted in Paris will properly, effectively and progressively address loss and damage in these respective legal options'.7 Some major struggles appear to be looming ahead before and in Paris next year ...

4.3 Adaptation

In contrast to the negotiations on loss and damage, adaptation efforts aim to prevent damage rather than compensate for it. Non-Annex I countries have for many years now made some efforts to raise the status of adaptation in the climate regime. This was successful overall in Lima also, although not in all cases. For example, non-Annex I countries were not successful in their attempt to include adaptation in the workplan of the technical expert meetings (TEMs) under WS2 of the ADP, but successful in opening up the possibility of including adaptation in their INDCs under Workstream 1 (see above).

As part of the ordinary routine, the parties elected members of the Adaptation Fund Board and the Adaptation Committee. The Subsidiary Body for Implementation (SBI) discussed the report of the committee but did not follow its recommendation for a closer cooperation with the finance mechanism. As regards the national adaptation plans (NAPs), a major point of disagreement, the SBI rejected a request by many developing countries to revise the guidelines for the formulation of NAPs in order to allow a stricter formalisation and bring the NAPs closer to the finance mechanism. The next meeting of the SBI was requested, however, to discuss better support for the development and implementation of NAPs by the Green Climate Fund. §

4.4 Finance

Financing climate actions and low-carbon development is regularly a major point of contention within the climate negotiations. With developed countries having jointly committed to mobilising US\$100 billion per year starting in 2020, expectations on deliverance are understandably high in developing countries. However, a definite roadmap for upscaling current levels of funding was hoped for in order to strengthen trust that such levels of funding would be reached within the required timescales.

Pledges made to the Green Climate Fund (GCF) at a high-level conference convened by UN Secretary-General Ban Ki-moon had amounted to slightly below US\$10 billion. The GCF had originally called for countries to pledge up to US\$15 billion as initial funding for the GCF's initial period (2015–2018), but had lowered its call to US\$10 billion in September. During the second week in Lima, more countries came forward with finance pledges to the GCF. With about US\$10.2 billion pledged by 27 countries, pledges now exceed the target the GCF had

⁷ http://ldcclimate.wordpress.com/2014/12/14/ldc-group-statement-at-closing-of-cop-20/.

⁸ Decision 3/CP20 FCCC/CP/2014/10/Add.2 'National adaptation plans'.

aimed for. In an unprecedented move, seven developing countries have also pledged funding for the GCF: Peru, Panama, Colombia, Mexico, Indonesia, South Korea and Mongolia.

Another positive note was struck by Germany. Whilst in 2013 the Adaptation Fund had struggled to collect US\$100 million to be able to continue its operations, in Lima Germany at one stroke contributed three-quarters of this year's US\$80 million fundraising target. However, to think that this would be a sign of a breakdown of the 'firewall' between developed and developing countries in commitments would prove very wrong. Developed countries held their ground to keep any mention of a roadmap for upscaling climate finance to the projected US\$100 billion out of the decision on long-term finance – a major disappointment for developing countries hoping for reassurance that the promised finance would actually be forthcoming.9 Developed countries' biennial update reports on upscaling climate finance could be used to define elements of a pathway, but the language is weak.¹⁰

Within the negotiations on finance elements in the Paris Agreement, the divisions between the country groupings remained. Negotiators speaking for the like-minded developing countries (LMDCs), the African Group and the G77/China strongly opposed calling for 'all' countries to mobilise climate finance. Negotiators for developed countries, including the EU and the US, stressed the need to reflect evolving capabilities and responsibilities of all countries. This kind of polar opposition between standpoints will certainly be very hard to resolve in the continuing negotiations for a Paris deal.

4.5 Monitoring, reporting and verification

Some positive developments regarding the monitoring, reporting and verification (MRV) of the parties' efforts can be reported from multilateral assessments (MA) of Annex I parties' pre-2020 mitigation efforts as part of the international assessment and review (IAR). With the aim of increasing transparency as well as comparability, the historic first session assessing developed countries' first Biennial Review reports took place on Saturday and Monday, 6 and 8 December. In total, the European Union and 16 developed countries were assessed (Austria, Croatia, Cyprus, Denmark, Finland, France, Italy, Latvia, Luxembourg, the Netherlands, New Zealand, Portugal, Spain, Sweden, Switzerland and the United States).

4.6 Carbon markets

The negotiations on future carbon markets came to a virtual standstill in Lima. A group of countries led by Brazil and China blocked any further discussions on the issues of the 'new market mechanism' (NMM) and the 'framework for various approaches' (FVA), 11 arguing that negotiating concrete modalities and procedures for the NMM and defining the scope and purpose of the FVA would effectively prejudge an outcome of the ADP process on a future climate agreement. Without a clear mandate as to what role marketbased mitigation instruments will play under the new agreement, these countries were not prepared to continue discussions. This position was strongly contested by others, including the EU, the Umbrella Group (UG) and the Environmental Integrity Group (EIG). In their views, the discussions on NMM and FVA historically predates the Durban process and should hence be continued independently from it.

Whilst the position of Brazil, China and others does have some justification, it is also likely that it is motivated to some extent by tactical considerations. Brazil and China may want to hold back market discussion in order to save it as a bargaining chip for last minute deals in Paris. Historically, the clean development mechanism (CDM) was created in just such a last minute move in Kyoto in 1997.

The parties were also not able to build on the advancements regarding CDM modalities and procedures that had been achieved in the intersessional meeting of the Subsidiary Bodies in June 2014. It was not possible to reach consensus on how to proceed with those issues on which

After a brief overview of the countries' efforts regarding the mitigation of emissions and progress towards their emission reduction targets, the parties had the opportunity to pose questions to the presenting country. This opportunity was taken up by many parties and most questions could be answered to the satisfaction of the questioner. At some points in the session, however, the parties criticised a lack of detail regarding the information provided and Brazil stressed that the use of different metrics across countries complicated the comparison of the countries' efforts. Nevertheless, before and after the session, the parties as well as observer organisations stressed the importance of the MA in building confidence and trust among parties for future negotiations on the 2015 agreement.

Decision 5/CP20 FCCC/CP/2014/10/Add.2 'Long-term climate finance'.

¹⁰ ibid para 10.

¹¹ For an introduction to these items see W Sterk, C Arens, L Hermwille, N Kreibich, F Mersmann and T Wehnert 'Warsaw groundhog days: old friends, positions and impasses revisited all over again' 2013 Warsaw Climate Conference Wuppertal (Wuppertal Institute for Climate, Environment and Energy 2013).

disagreement prevails and discussions under this item ended with the decision to continue negotiations at the next meeting of the SBI in June 2015. The lack of progress further aggravates the crisis of international carbon markets in the framework of the UNFCCC.

The necessity to reform the CDM had already been iterated by countries in their opening statements as well as in the CMP plenary. The annual CDM guidance document focuses mainly on streamlining standards and procedures of the CDM project cycle. For example, revisions of baseline and monitoring methodologies are now possible without reference to a concrete project activity. Also, validations of monitoring plans can now take place together with the first verification of emissions reductions. The deregistration of CDM project activities is now endorsed by the CMP. This step is necessary in order to avoid the double counting of emissions reductions for CDM projects that intend to qualify for the Chinese Certified Emissions Reductions Scheme (CCER).

Negotiations on options for building a net mitigation component into the CDM could not reach an agreement amongst the parties. This would have meant a departure from the current 'zero-sum game' concept of the mechanism, meaning that the exact amount of GHG emissions in Annex I countries needs to be offset by GHG reductions of the same amount in non-Annex I countries. Options to go beyond this situation, resulting in a net GHG mitigation effect, could extend to conservative baselines, shortened crediting periods, discounting and voluntary cancellation of CERs. However, although alternative text was suggested and discussed line by line several times, the issue could not be included in the final decision.

A further bone of contention centred on the monitoring of sustainable development effects of CDM projects, as well as stakeholder consultation and the establishment of a grievance mechanism. Currently, the use of the executive board's sustainable development tool is voluntary. Whilst particularly the EU and St Lucia made a strong case for the monitoring of sustainable development effects initially, their proposals met with strong opposition from China, Brazil and India. In the end, most of the text proposed on these issues was deleted as no consensus could be found. The final decision merely requests the executive board 'to publish its procedure for dealing with communications from stakeholders'. ¹²

5 Lima, Paris and beyond

5.1 Assessing the Lima outcome

Overall, COP-20 in Lima can be viewed rather critically, but it also marked a number of positive developments. Whilst it was dominated by the usual struggle between industrialised and developing countries, these are not two monolithic blocs any more. Not only the most vulnerable countries but also AILAC and Brazil put their mark on the proceedings by submitting constructive proposals. The capitalisation of the Green Climate Fund was also supported by a number of developing countries before and during the conference. Apart from the emerging economies of Mexico and South Korea, these also included Indonesia, Colombia, Mongolia, Panama and Peru.

The debut of the multilateral assessment of industrialised countries' 2020 pledges struck another positive note. Parties as well as observer organisations stressed the importance of the multilateral assessment in building confidence and trust among parties for future negotiations on the 2015 Agreement. The ADP WS2 negotiations on enhancing pre-2020 ambition can also be considered successful. The stalemate of the UNFCCC is increasingly out of sync with positive developments on the ground such as the enormous digression of prices for renewable energy technologies and their steep rise not only in industrialised but increasingly in emerging economies and developing countries. The continuation of the technical expert meetings and an improved focus towards implementation under WS2 are positive experiences with climate change mitigation that could create resonance within the UNFCCC regime and create a momentum for more ambitious mitigation commitments.

Lima also did the main thing it was supposed to do – it will 'bring us to Paris', as it was formulated afterwards by the German Vice Minister Jochen Flasbarth. The Lima call to climate action also stipulates that there may be no backsliding of countries and that their contributions to the Paris Agreement need to mark a progression beyond their current undertakings. This is an important starting point for the discussions of what has been called a ratcheting-up mechanism, which would ensure that in future iterations of the commitment cycle parties will gradually increase the level of ambition of their mitigation commitments. Of particular importance for such a mechanism is that parties must not use the occasion of new commitments to backtrack from their earlier commitments. Provisions for such a mechanism are also included in the 'Elements for a draft negotiation text', which has been attached to the Lima call for climate action.

¹² Decision 4/CMP20 FCCC//KP/CMP/2014/9/Add.1 'Guidance relating to the clean development mechanism'.

In addition to enshrining forward momentum in the regime, this provision also ensures that there will continue to be differentiation between industrialised and developing countries in the near future, as they are at different starting points.13

Not much more can be said, however, of the main task of the COP relating to the new agreement. This is rather a meagre result, even compared with the already quite low expectations regarding the new Paris Agreement. One should remember that, in contrast to the Kyoto Protocol with its internationally negotiated and legally binding targets, the negotiations at the moment centre around voluntary pledges of different types, time-frames and periods, which may or may not be reviewed and, if they are to be reviewed, who will do so is not clear either. Lima produced neither a timetable for the submission of INDCs; nor did it agree on a communication format. Moreover, regarding the contents of the INDCs, the Lima decision brought about an absolute minimum of guidance only, which will make it extremely difficult to compare and assess the submissions of parties.

In addition, the ex ante 'review' part of the 'pledge and review' system was largely abandoned, which is going to make an external assessment even more complicated. It is now left to civil society organisations and research institutions to fill this hole as best as they can by conducting their own reviews of countries' INDCs. However, such assessments require resources, even more so given the lack of a uniform submission format for the INDCs. It therefore remains to be seen how far reviews by civil society and research organisations can compensate for the lack of ambition on the part of the COP.

Lima also did not agree on a common timeframe for the INDCs and saw some unlikely alliances on this issue. Whilst the USA, Brazil, the LDCs and others advocated for a 2025 timeframe, the EU, China and others stuck to their position that INDCs should be referenced to 2030, despite the commonly shared expectation that most INDCs will not be compatible with the 2°C target. The 'elements' text has no less than 10 different options on the timeframe for commitments/contributions.

Compared to the pledges under the Cancún Agreements, the Lima call to climate change action might be considered to signify progress since the Cancún pledges were not subject to any information requiremens whatsoever. 14 All in all, however, the promise of fresh momentum, of changed tides after the US-China

In summary, the UNFCCC negotiations significantly trail behind the pace that is needed to achieve a meaningful agreement in Paris. Whilst everyone acknowledges that climate policy is widely off track, three years of ADP negotiations have so far not had the result of narrowing down the fundamental differences between countries, as reflected in the 'elements' text with its myriad of options. However, there is still almost one year and several rounds of negotiations left until the Paris Conference.

Nontheless, even if the parties to the Climate Convention and Protocol turn the current snail's pace into a sprint, the results will in all probability not be satisfactory. The shape that the Paris Agreement is taking was called by some delegates a system of 'pledge and chat' - one might even say 'pledge and see what happens'. Countries will determine nationally whatever they think they will be able to contribute to the climate agreement, without any international ex ante review or negotiation of their contributions. There is not even a uniform submission format. The only constraining element the Paris Agreement may have is the ex post review of whether countries actually delivered their contributions or not. But it remains to be seen how stringent this ex post review is going to be.

Even the most die-hard supporters of this approach are not arguing that it will close the 'emissions gap' - the gap between the current pledges and the reductions required to keep the world below 2°C warming. 15 It is thus becoming increasingly obvious that the UNFCCC regime as it is designed now is not delivering what it is supposed to, according to Article 2: to prevent a dangerous anthropogenic interference with the climate system.

It therefore appears reasonable and, indeed, timely to reflect on the deficiencies of the current approach, or rather, to envision what the UN regime could seriously be

announcement and the successful capitalisation of the Green Climate Fund has not been borne out. This became particularly visible in the removal of the loss and damage provisions from the ADP decision, which many perceived as a slap in the face for AOSIS and the LDCs. Also, whilst developed countries paid lip service to the importance of adaptation, the Lima call is itself highly centred on mitigation. Not engaging with the key demands of the poorest and most vulnerable countries is surely not a way to revive the Durban coalition of the EU, AOSIS, the LDCs and others, which extracted the mandate to start negotiations on the 2015 Agreement from the reluctant trio of the US, China and India.

¹³ Lavanya Rajamani 'Lima call to Climate Action: progress through Modest Victories and Tentative Agreements' (2015) Economic and Political Weekly 14-17.

¹⁴ ibid.

¹⁵ United Nations Environment Programme (UNEP) 'The Emissions Gap Report 2014' http://www.unep.org/publications/ ebooks/emissionsgapreport2014/portals/50268/pdf/ EGR2014_LOWRES.pdf.

expected to deliver and whether there are complementary roads (or paths) that should be explored. This article will now concentrate on these two major issues: the improvement of the UNFCCC and the establishment of a parallel track of negotiations in a club of pioneer countries.

5.2 Homework for the Paris Agreement

5.2.1 The Paris Agreement should go beyond emissions accounting and include multi-dimensional commitments

After more than 20 years of failing to come to an adequate agreement, it is worth asking whether the international climate negotiations as they have been pursued have the right target in their sights. The UN climate regime has so far focused almost exlusively on GHG emissions. Commitments in the Kyoto Protocol have been conceived of in terms of emission targets and there is a widespread sentiment that emission targets for developing countries would also be the most adequate approach to address climate change. This carbon centred 'scientific' approach had been developed by the IPCC in its first drafts of a UN convention on climate change. As climate change is caused by the accumulation of greenhouse gas emissions in the atmosphere, it was concluded that policy should put a cap on emissions and ratchet that cap down over time, ideally using this cap as a basis for an emissions trading system, which would put a price on emissions and thus drive investments and innovation into low-emission alternatives. However, this approach has so far manifestly failed to produce the desired outcome. This may partly be due to the UNFCCC's consensus rule, as will be discussed further below, but the approach also has inherent limitations.

Framing commitments as 'obligations of result' – the French law concept whereby there is an obligation to achieve a certain result – is not the only approach available to international regulation. Instead of – or in addition to – obligations of result, commitments may also be framed as 'obligations of conduct', 16 ie commitments may refer to what countries are supposed to do, rather than - or in addition to – what they are supposed to achieve. The World Trade Organization (WTO) is one example that prescribes desired behaviour rather than desired outcomes. The WTO does not prescribe how much countries should trade; it prescribes what policies and measures countries should pursue and must not pursue in order to promote and not impede trade.

The climate regime clearly needs a reference to emissions as these constitute the environmental problem

that is supposed to be solved. All climate policy ultimately needs to be measured against the yardstick of whether aggregate global emissions are on track for the below 2°C target. To make this judgment, accurate and verifiable economy-wide emission accounting by at least all major emitters is crucial.

However, arguably all political incentives point in the direction of setting weak rather than strong emission targets. We therefore recommend reconsidering the political wisdom of focusing almost exclusively on emissions quantities, as the climate regime has done so far. Countries should adopt further commitments in addition to emission targets to compensate for the deficits of the emisssions-based approach, of which there are several.

There is hardly any country in the world where setting strong emissions targets yields political rewards for politicians. On the contrary, industrialised countries fear that taking the lead will lead to deindustrialisation and developing countries see being able to emit CO, without constraint as much-needed 'development space'. Whilst many have tried to stop talking about 'burden sharing' and instead talk about 'effort sharing', burden sharing is what everyone has on their minds. 17 Yvo de Boer, the former head of the UNFCCC Secretariat, reportedly identified this lack of confidence in the viability of low-emission development as the key factor behind the failure of Copenhagen to deliver the hoped-for agreement. 18

In addition, quantity commitments are equivalent to giving countries money. Stiglitz opines that: 'If emissions were appropriately restricted, the value of emission rights would be a couple trillion dollars a year - no wonder that there is a squabble over who should get them'. 19 The effect is that countries have an incentive to keep their commitments as weak as possible in order to maximise the volume of sellable allowances.

Furthermore, it is in fact hardly possible for governments credibly to promise achievement of specific future emission levels since emissions are strongly influenced by factors such as economic and population growth, which governments can at best influence indirectly,

¹⁶ Daniel Bodansky 'The Durban Platform: issues and options for a 2015 agreement' Center for Climate and Energy Solutions 2012) 4.

¹⁷ As evidenced for example by a list of statements by political leaders quoted in William Moomaw, Mihaela Papa 'Creating a mutual gains climate regime through universal clean energy services' (2012) 12(4) Climate Policy 505-20 at 507.

^{18 &#}x27;Doha: loss and damage in the desert' (10 December 2012) James' Blog: a blog from BusinessGreen http:// www.businessgreen.com/bg/james-blog/2230841/doha-loss-anddamage-in-the-desert.

Joseph Stiglitz 'Overcoming the Copenhagen failure' (6 January 2010) http://www.project-syndicate.org/commentary/ overcoming-the-copenhagen-failure; see also Joseph E Stiglitz Making Globalization Work (WW Norton & Co New York/London

if at all. Technology choices are in many cases also not under the control of national policy as most countries are technology takers. These risks are especially pertinent for rapidly industrialising countries. Rapid industrialisation and urbanisation is in itself a challenge for reducing emissions. In addition, future emission levels are much more difficult to forecast in rapidly growing economies than in less rapidly growing ones. The prevalence of fears that quantity commitments may become a 'cap on development' is hence not surprising.20

Finally, if tradable as in the Kyoto Protocol, quantity commitments constitute not only a minimum but also the maximum emissions reduction and adjusting commitments once they have been set has proven to be nearly impossible. The Kyoto approach thus effectively caps ambition.

It may also be sub-complex to see climate change solely through the lens of emissions because it frames climate change as an environmental problem only. But arguably climate change is fundamentally an economic and development problem, not a traditional environmental problem, so the traditional end-of-pipe approach to environmental regulation will arguably not do if pursued in isolation. Unfortunately, in the UNFCCC the issue of sustainable development has been relegated to the status of a 'co-benefit' that is seen as nice to have but not strictly necessary, which is fundamentally at odds with the priorities of developing countries, who clearly see development as their first priority and emission reductions as a co-benefit. Whilst they are not as explicit about it, the same also applies to the traditional industrialised countries. When looking for example at the German Renewable Energy Act, it lists four objectives that are to be achieved. However, only one of these relates to climate and the environment and the other three are immediate benefits the German legislator hopes to achieve: reducing the long-term macro-economic cost of energy supply, preserving fossil energy resources and promoting technology development.²¹

The UN climate regime may therefore benefit from turning the priorities around and framing commitments in a way that puts sustainable development benefits front and centre. Emission targets should therefore be complemented by other types of commitments that do not trigger fears of imposing a 'cap on development' and that

are more in line with what governments can actually deliver, namely implementing policies.

5.2.2 Possible types of multi-dimensional commitments

As a result of these considerations it is suggested that commitments related to economic inputs such as energy sources and policies should be adopted. Addressing economic and policy inputs will allow development approaches that reduce emissions, whilst at the same time promoting sustainable development more generally. In addition, this approach would allow international commitents to be anchored directly within the broader context of national development, energy and environment planning. This would help ensure that development objectives are not jeopardised and at the same time facilitate the mainstreaming of climate objectives, increasing the chances of actual implementation.²²

With regard to economic inputs a suggested example is energy-related CO, emissions, which account for about 60 per cent of global emissions and which are determined by: the size of the population, the size of the economy, the energy intensity of the economy and the CO, intensity of energy supply. Economic and population trends are largely beyond the influence of governments and will rarely be made the subject of international agreements. Countries should therefore commit to improving the energy productivity of their economies and the CO₂ productivity of energy provision.²³

Improving energy productivity and scaling up clean energy may dovetail more directly than emission targets with what is seen as being in the national interest. Experience seems to indicate that over-achieving clean energy targets is often seen as a prompt for doing more, while over-achieving emission targets is seen as an invitation to rest on one's laurels. The EU has achieved its Kyoto target for 2020 seven years ahead of schedule but is nonetheless unable to strengthen it. By contrast, the Chinese solar PV target for 2015 was initially set at 5 GW and then repeatedly raised to 10 GW, 15 GW, 21 GW and, finally, to 35 GW.²⁴ Another example is India, which recently quintupled its solar energy target for 2022 from 20 GW to 100 GW.²⁵

²⁰ W Sterk, C Beuermann, C Dienst, K Hillebrandt and others 'Submission to the Ad Hoc Working Group on the Durban Platform for Enhanced Action, Workstream 1 "The 2015 Agreement" (Wuppertal 2013) http://wupperinst.org/uploads/ $tx_wupperinst/ADPWS1SubmissionWuppertalInstitute.pdf.$

²¹ Erneuerbare-Energien-Gesetz (25 October 2008) BGBl. I S 2074 http://www.gesetze-im-internet.de/eeg_2014/.

²² Sterk and others (n 20); Navroz K Dubash, Radhika Khosla 'The road from Lima' (12 December 2014) http://indianexpress.com/ article/opinion/columns/the-road-from-lima/; Niklas Höhne, Lina Li and Julia Larkin 'Characteristics of mitigation commitments' (Ecofys 2014) http://www.ecofys.com/en/publication/characteristics-ofmitigation-commitments/.

²³ Aviel Verbruggen 'A turbo drive for the global reduction of energy-related CO2 emissions' (2011) 3(4) Sustainability 532-48. 24 Giles Parkinson 'Solar insights: China lifts PV target to 35 GW' (2013) http://reneweconomy.com.au/2013/solar-insightschina-lifts-pv-target-to-35gw-10104.

Some analysts argue that the climate regime should shift fully to a policy-based approach, taking as their model the WTO with its high level of detailed policy coordination. However, while such an approach may have much to recommend it, it is worth noting that the WTO also started out small, focusing mostly on tariffs, and took half a century to develop to its current status. It is also necessary to take into account the experience of trying to negotiate coordination of policies and measures in the original Kyoto Protocol negotiations, which ultimately failed. ²⁷

Nonetheless, there are key policy levers that recommend themselves for special attention and are already the subject of international discussions. One is fossil fuel subsidies, which should be phased out by all countries as soon as possible. According to the IMF, simply removing these subsidies globally could reduce global CO₂ emissions by 13 per cent. Whilst the purported objective of these subsidies often is to help with energy access of the poor, most of the benefits are actually captured by higher-income households.²⁸ The social impacts of removing fossil fuel subsidies should therefore be manageable, but will nevertheless require attention. A win-win approach would be to redirect those resources into supporting low-income households in upgrading the energy efficiency of their buildings, appliances and transport options. There is already a G20 agreement to phase out fossil fuel subsidies, which could be built on and strengthened.

In addition, governments should incorporate the costs of climate change into all government procurement decisions, in particular investment decisions on long-lived infrastructure. Thus, instead of market prices, investment decisions should be based on a shadow price that includes all territorial and extraterritorial externalities that will be caused by the investment. ²⁹ To further facilitate the anchoring of climate protection in all government decisions, it would be helpful if all countries committed to adopting comprehensive zero-emission development strategies covering all sectors.

Evaluation of the experience from implementing concrete actions based on systematic monitoring should

contribute to shifting opinions about the feasibility of climate protection and thus allow knowledge-based adoption of ever more ambitious commitments step by step.

5.2.3 Use of emission targets needs to be improved

In addition to adopting multi-dimensional commitments in addition to emission targets, the use of emission targets themselves should also be improved. Positive dynamics on the ground will only have a positive climate impact if emission targets do not effectively cap ambition, as is the case in the Kyoto Protocol. The 2015 Agreement needs to be organised to allow a race to the top, rather than a race to the lowest common denominator. Emission targets should therefore not be tradable and bankable by governments to reduce the incentives to adopt weak commitments and to prevent targets from becoming a cap on ambition. Emission trading should arguably only be pursued at the level of companies, for example in domestic emission trading systems, as companies actually make their trading and investment decisions on the basis of economic rather than political considerations.

Furthermore, the Kyoto basket approach should be abandoned; each GHG should be regulated separately. The basket approach suggests an equivalence of greenhouse gases where in fact none exists, allowing relatively easy reductions of short-lived gases to substitute for more difficult reductions of long-lived $\rm CO_2$. However, it is cumulative carbon that is the key determinant of future warming. Most $\rm CO_2$ emissions are caused by long-lived infrastructure such as power plants, buildings and transport infrastructure, which once in place, cause emissions for decades. Offsetting reductions of $\rm CO_2$ with other reductions therefore means losing time, not buying time. ³⁰

5.2.4 Contributions need to be assessed internationally

Whilst the Lima Conference failed to agree on assessing countries' contributions individually, this deficit may still be rectified in the coming rounds of negotiations. The Lima call to climate change action specifically stipulates that 'the arrangements specified in this decision in relation to intended nationally determined contributions are without prejudice to the legal nature and content of the intended nationally determined contributions of Parties or to the content of the protocol, another legal instrument or agreed outcome with legal force under the Convention applicable to all Parties'.³¹

^{25 &#}x27;India's Modi raises solar investment target to \$100 bln by 2022' (2 January 2015) Reuters http://www.reuters.com/article/2015/01/02/india-solar-idUSL3N0UG13H20150102.

²⁶ See eg David Victor Global Warming Gridlock. Creating More Effective Strategies for Protecting the Planet (Cambridge University Press Cambridge 2011).

²⁷ Sebastian Oberthür, Hermann E Ott *The Kyoto Protocol:* International Climate Policy for the 21st Century (Springer Berlin 1999).

²⁸ International Monetary Fund 'Energy subsidy reform: lessons and implications' (28 January 2013) http://www.imf.org/external/np/pp/eng/2013/012813.pdf.

²⁹ Sterk and others (n 20).

³⁰ Raymond Pierrehumbert 'Losing time, not buying time' http://www.realclimate.org/index.php/archives/2010/12/losing-time-not-buying-time/.

^{&#}x27;Lima call for climate action' (n 1) para 8.

The Paris Agreement should spell out the procedures for reviewing and strengthening the INDCs submitted over the course of 2015, as well as procedures for agreeing on future commitment periods under the new agreement. The post-Paris review and future negotiations should be based on an overall review of adequacy, as is foreseen to be produced by the Secretariat in 2015 and, on the most recent information on the implementation of the respective current commitments, projections for achieving the commitments and assessments of the potential for increasing ambition. The necessary information should be submitted as part of the parties' national communication and biennial (update) reports. Parties should also develop criteria and procedures to compare commitments in terms of equity. Proposed commitments should be assessed by an independent technical panel and other parties.

5.2.5 Commitments should give clear short-term and long-term directions

Regarding the time horizon of commitments, longer time horizons facilitate private sector planning and investment decisions because they provide more long-term investment certainty. However, ambitious long-term targets usually require immediate short-term actions. With a long-term horizon for commitments, concrete measures may be postponed and achievements hard to measure. In addition, unexpected events (such as economic turbulence or breakthroughs in science or technology) could render targets with a long-term horizon outdated long before the target year.32

It is furthermore worth considering that studies of the emission pathways consistent with limiting warming to 2°C or even 1.5°C above pre-industrial levels, taking into account the technical and economic feasibility, show clear constraints on emission pathways. The level of ambition needed for the 2030s is directly related to the national and international action that is undertaken in the 2020s. If the ADP Agreement in 2015 were to lock in insufficient emission commitments until 2030, there is a considerable risk that it could be politically impossible, or at least extremely difficult, to change this outcome, as exemplified by the EU's inability to strengthen its 2020 target.

Another aspect is that one key function of the UNFCCC is to create moments of concentrated public attention and political pressure. It is doubtful whether events such as the joint Sino-US announcement would be occurring if there was not a new agreement to negotiate. In addition, one may hope that the globally increasing uptake of renewables and other climate friendly solutions will create new

momentum on the ground. These dynamics should then be brought back into the UNFCCC, but this would require having a political entry point, preferably a new round of negotiating contributions. If a climate club of forerunners (see below) was created, it would also require such an entry point to stimulate the UNFCCC regime. The climate would certainly be much better served by having 5-year instead of 10-year intervals between such entry points.

Short periods, such as five years, would allow subsequent political leaders to increase political ambition and open up the opportunity to modify inadequate agreements adopted in 2015. They would also offer the ability to respond quickly to new scientific and technological developments. The EU and others suggest that these functions could be fulfilled by complementing the 2030 timeframe with interim reviews in order to strengthen the level of ambition along the way, and the 'elements text' does contain options for such a review and enhancement mechanism. However, experience to date has been that targets are unmovable once they have been set internationally, the EU itself being the prime example.

In addition to clear directions for the short term the climate regime should also provide long-term certainty for investments. A substantial part of emissions stems from long-lived infrastructure, such as power plants, buildings and transport infrastructure. Once built, this infrastructure will stay in place for decades. To give proper direction to these investments, the parties should complement shortterm commitment periods with a meaningful long-term goal or goals. For example, the German Advisory Council on Global Change has suggested that the UNFCCC should establish a goal to reduce CO, emissions from fossil fuels to zero worldwide by 2070 at the latest.³³

6 A fresh start: moving faster in a club

Apart from reflections on the improvement of the UNFCCC climate regime, the situation also invites a more fundamental analysis. This is because the current regime has been operating for more than 20 years now – and still has failed to produce a treaty that is adequate for the task: providing a framework that unites, elicits and supports the world's endeavours to avert a 'dangerous interference with the climate system', as Article 2 of the Convention stipulates. After 20 years the prime question is not only how to improve the current climate regime, but also whether the UNFCCC should serve as the only basis for the world's endeavour. In other words, should the UN

³² See Höhne, Li and Larkin (n 22).

³³ German Advisory Council on Global Change (WBGU) Climate Protection as a World Citizen Movement (Special Report Berlin 2014).

regime be supplemented by a second track for first movers or pioneers. 34

It is probably wrong to put the Convention at the centre of investigation, because the UNFCCC is, above all, merely an instrument to organise the general technical, scientific and political co-operation of the parties without prescribing specific obligations. This approach was the wisdom of several decades of environmental law-making in the 1990s: international cooperation and 'regime building' was orchestrated in a step-by-step approach, involving conferences and soft-law declarations as a first step, the conclusion of a 'framework convention' as a second and the adoption of a 'protocol' as an offspring of the Convention as the third and final step. Corresponding to this was a gradually higher degree of commitments: Whereas the soft law instrument usually did not have a legally binding effect, the Convention would define a legal objective and stipulate technical and political cooperation and the protocol would finally lay down specific legally binding obligations.35

The investigation on the flaws of the current regime must therefore concentrate on the Kyoto Protocol and its approach, since this was meant to produce the specific rules to put the world on a sustainable pathway. In one important aspect the Kyoto Protocol is significantly different from all other environmental protocols: whereas the Montreal Protocol, the protocols to the Biodiversity Convention or to the Geneva Convention on Long-range Transboundary Air Pollution, the protocols to the Basel Convention on hazardous wastes or to the Barcelona Convention for the protection of the Mediterranean Sea all require the takingon of specific obligations by all parties upon ratification, ³⁶ the Kyoto Protocol does not. On the contrary, according to its Article 24 the Protocol is open for ratification by all Parties to the Convention – but the obligations contained in Articles 2 and 3 of the Protocol are directed at 'Annex I Parties'37 only, referring to the list of industrialised countries contained in an annex to the treaty. Non-Annex I Parties therefore, namely non-industrialised countries at the time of the adoption of the Protocol that are not included in the Annex, have no specific obligations under the Protocol.

The intention was to involve all countries in the further evolution of the regime. On the one hand, it was thought that vulnerable countries most affected by climate change should be part of any agreement -AOSIS especially strongly demanded that its member countries should be allowed to ratify. On the other hand, the impacts of measures for the protection of the climate would be felt by all countries around the globe and there was a view that all countries should accordingly have a say in the formulation of these measures. Despite these good intentions, the consequences were somewhat detrimental, because this allowed countries to join the Protocol that never had any intention to engage in serious climate protection – and consequently used every possibility at hand to prevent progress. Most destructively, however, it incorporated the deep schism of the Convention between 'Annex I' and 'non-Annex I' countries into the Kyoto Protocol and this has plagued its deliberations ever since (see above).

This difference from the practice in other regimes was not merely a tiny detail; it fundamentally changed the dynamics of the subsequent evolution. In effect, the parties in Kyoto missed the chance to create a 'club' but relegated the Protocol to the same status as its mother treaty, the UNFCCC. Since the countries did not have to pay an 'entrance fee' upon ratification of the Protocol, it also failed to create an exclusive 'club good' but created benefits (such as the CDM) without demanding an entrance fee.

In the Montreal Protocol, for example, each country that ratified had to accept the (differentiated) phase-out schedule for CFCs or halons prescribed in the treaty, with developing countries being allowed a delay of 10 years for the fulfilment of those targets. In return, the parties to the Protocol were able to trade in regulated substances (ie they became part of the CFC cartel) and each ratifying developing country was eligible for financial and technical support. In a nutshell the Montreal Protocol, and this is also true for the protocols in other regimes, is characterised by a careful balance between rights (trade, support) and duties (phase-out), whereas the Kyoto Protocol is not. This imbalance has made a progressive evolution of the regime extremely difficult, if not impossible.

Adding to these structural difficulties, the UNFCCC is governed by a strong consensual approach.³⁸ There are

³⁴ See Hermann E Ott 'Why we need climate clubs: a second track climate strategy' http://climate-l.iisd.org/guest-articles/why-we-need-climate-clubs-a-second-track-climate-strategy/.
35 Hermann E Ott ,Umweltregime im Völkerrecht' (Nomos Verlag 1998); see also Thomas Gehring 'Dynamic international regimes: institutions for international environmental governance'

⁽Frankfurt am Main 1994). 36 ibid.

³⁷ Strictly speaking the articles refer to Annex B of the Kyoto Protocol; however, in general parlance, industrialised countries are referred to as 'Annex I Parties'.

³⁸ This may have happened partly because the UNFCCC was negotiatied under the auspices of the UN General Assembly and not under the United Nations Environment Programme (UNEP) like many other environmental treaties. The most advanced model is the Montreal Protocol, where desisions by majority on already regulated substances take effect even for those parties that have voted against, without any need for subsequent ratification; see eg Ott (n 35) 155 ff.

some provisions in the treaty on majority voting – for the adoption of amendments, annexes or protocols – but these decisions only take effect for those parties that subsequently ratify.39

Furthermore, the practice of decision-making is governed by the Rules of Procedure (RoP).⁴⁰ Rule 42 stipulates that majority voting can take place if all other efforts to arrive at a consensus have been exhausted. However, since the first Conference of the Parties, Rule 42 is barred from being applied because of the opposition of Saudi Arabia and other OPEC countries before COP-1.41 Each COP (and CMP) thus adopts the Rules of Procedure for each new session - with the exception of Rule 42. As a result, by default each and every decision in the work of all bodies of the regime must be taken by consensus. This provides ample opportunity for countries that oppose meaningful action on climate change to pursue their own interests and/or to make progress very difficult.⁴²

This does not mean, of course, that the COPs and all other bodies cannot work properly on a day-to-day basis. There is an immense array of activities in the dozen or more convention and protocol bodies which prove that countries do cooperate in the regime.⁴³ Unfortunately, however, this does not lead to a stronger regime. Not only has strengthening proven to be impossible; so too has applying those rules to more countries (ie some of the former developing countries). The breakdown of the negotiations in Copenhagen 2009 has finally exposed the basic flaw of a consensus-based regime. Since then, negotiations on a global agreement have resumed but on a fundamentally lower level of ambition that is insufficient to close the emissions gap (see above).

Although some actors have certainly been more active than others in preventing a progressive evolution of the regime, this inability to come up with an adequate response to climate change cannot be blamed on specific countries but must be attributed to the approach as such. It may well be that consensus is not possible in an area as contested as climate change, an issue as relevant for the economic

For these reasons, a fresh start is suggested here, to complement the current process of the climate regime with a second track. This would establish a climate club where pioneer countries can join forces and harvest the benefits of mutual assistance and cooperation in the climate-friendly transformation of their economies and societies.

There has been some discussion of the pros and cons of an international 'club approach' in recent years and its difference from global or universalist approaches has been assessed in terms of speed, ambition, participation and equity. 45 Most of the clubs that have emerged in the climate arena have, however, not exhibited significant progress beyond the slow pace of the UNFCCC regime. One possible explanation is the fact that they have concentrated on narrower issues (such as specific gases) and none of them was set up to provide a stronger framework than the global effort. 46 Some of these clubs were actually set up with the aim of diverting attention away from the UNFCCC regime and to provide an attractive – and weaker – alternative. 47

The pioneer climate club envisaged here would, on the contrary, be set up with the explicit objective of achieving faster and more effective progress in the regulation and implementation of international climate policy. A fresh start would above all provide the opportunity to get the rules and institutions right. Most important, a group of

wellbeing of nations and people - and as relevant for political careers. It may be impossible to arrive at a consensus for regulations that devalue large fortunes because fossil reserves must stay in the ground. In the absence of compensation, not using one-third of the global oil reserves, half of the gas reserves and 80 per cent of coal reserves⁴⁴ amounts to a massive reallocation of wealth and leads to tectonic changes in the geopolitical arena. Transformations on such a scale are very probably not the result of cooperative activities on a global scale, but require pioneers to develop the technical and social innovations, which then disperse and become the global mainstream.

³⁹ See Oberthür and Ott (n 27) 253 ff, also in German (Opladen 2000) 321 ff.

⁴⁰ For an overview see Farhana Yamin, Joanna Depledge The International Climate Change Regime: A Guide to Rules, Institutions and Procedures (Cambridge University Press Cambridge 2004).

⁴¹ See Oberthür and Ott (n 27) 45 ff.

⁴² See Luke Kemp Framework for the Future: The Possibility of Majority Voting Within the United Nations Framework Convention on Climate Change (UNFCCC) FFU-Report 01-2014 https:// www.academia.edu/6433002/

 $Framework_for_the_Future_The_Possibility_of_Majority_Voting$ _in_the_UNFCCC.

⁴³ For an overview of the multitude of bodies see http:// unfccc.int/bodies/items/6241.php.

⁴⁴ Christophe McGlade, Paul Ekins 'The geographical distribution of fossul fuel reserves unused when limiting global warming to 2°C' (2015) 517 Nature 187 http://www.nature.com/ nature/journal/v517/n7533/full/nature14016.html.

⁴⁵ For an analysis see F Biermann, P Pattberg, H van Asselt and F Zelli 'The fragmentation of global governance architectures: a framework for analysis' (2009) 9(1) Global Environmental Politics 14. See also R O Keohane, D G Victor 'The regime complex for climate change' (2011) 9(1) Perspectives on Politics 7.

⁴⁶ See L Weischer, J Morgan and M Patel 'Climate clubs: can small groups of countries make a big difference in addressing climate change?' (2012) 21(3) Review of European Community and International Environmental Law 177;

⁴⁷ For example the Asia Pacific Partnership on Clean Development and Climate initiatied in 2005 by the Bush administration http://en.wikipedia.org/wiki/Asia- $Pacific_Partnership_on_Clean_Development_and_Climate.$

leadership countries could close the yawning gap between the necessities of quick reactions in the face of ever-faster change by, for example, adopting rules of procedure that allow for majority voting and fast-track decision-making.

The most obvious option for setting up such a club would be the adoption of another protocol in the framework of the UNFCCC. This protocol could contain specific (and differentiated) obligations and be open for all parties to the Convention willing to take on those commitments. In addition to the adoption of a second protocol, a new annex or another amendment would also serve the aim of creating a smaller club inside the existing regime. However, although the theoretical possibility for such a strategy exists, the practical chance for its realisation is almost zero because the adoption of any amendment or protocol would require the consensus of all other parties. Thus, it is not possible to form a 'break-out group' within the framework of the UNFCCC against the opposition of other countries.

A more realistic approach is therefore suggested, namely to complement the global negotiations in the framework of the United Nations with a smaller, more flexible approach under a strategy of different speeds. If the best solution, namely a global treaty with legally binding commitments from all major emitters, is barred — at least for the foreseeable future — it makes sense to go for a 'second best' solution. ⁴⁹ Negotiations on such a new climate treaty should be initiated shortly after the conclusion of COP-21 in Paris. ⁵⁰

This 'Alliance of the ambitious' or 'First movers club' would be open to unite ambitious countries from Europe, Asia, Latin America and Africa to combat climate change effectively. There are a number of countries on all Continents that it is suggested would be open to such an initiative because they view climate policy not as a burden and a hardship but as an opportunity for global prosperity that preserves our very basis of life. ⁵¹ In addition to the

nation states, the agreement could be open to regional entities such as the federal states in the US or the Länder in Germany.

Apart from the question of membership, there are a number of other issues that would have to be addressed when establishing such a treaty.⁵² It would need to be decided, for example, whether a quantitative target approach is chosen and, if so, whether these targets are aiming at emissions as in the present regime or at the energy input. Other questions include the benefits associated with becoming a member beyond the exchange of information or financial support. Should such a club, for example, establish special conditions for trade in certain climate relevant goods for its members, a strategy that was successfully employed by the Montreal Protocol? For the UNFCCC, some have proposed that only countries with absolute caps on economy-wide, sectoral or jurisdictional emissions should be allowed to participate in international emissions trading mechanisms. 53 A variant for a club outside the UNFCCC could be an agreement among its members not to trade emission units with non-members. The larger the club, the more this would constitute an incentive for non-members to join. Finally, the need for measures to safeguard the competitiveness of the industrial sector would need to be explored, and whether for example a carbon border adjustment would be required.

Such a club of forerunners could help to inject some of the much-needed dynamic that is required to put the world on a path compatible with its ecological limits. It could also be the place where forerunners could develop and gather practical experience with multi-dimensional commitments that go beyond the narrow focus on GHG emissions only, as discussed above. As a side effect, the formation of a climate club could restore hope all over our planet that our societies will finally begin to deal effectively with the biggest threat to our civilisation.

⁴⁸ See eg Foundation for International Law and Development (FIELD) 'The 2015 climate agreement: should countries qualify first to join the best part?' http://www.field.org.uk/blog/2014/08/18/the-2015-climate-agreement-should-countriesqualify-first-to-join-the-best-part.

⁴⁹ See Hermann E Ott 'Changing course in international climate policy: reaching a global agreement with different speeds' (2011) 27 FACET Commentary http://www.facet-online.org/facet/wp-content/uploads/FACET_27_Ott.pdf.

⁵⁰ The conclusion of another treaty on climate protection is not prohibited by the existence of the UNFCCC as long as it does not contradict the objectives of that treaty.

⁵¹ Examples are, in Asia: the Philippines, the Republic of Korea, Bangladesh and maybe the People's Republic of China; in Africa: South Africa, Morocco; in Latin America: the members of the AILAC group, Mexico, Brazil, Ecuador, Colombia, the AOSIS countries; in Europe: Germany, Denmark, France, and maybe Romania.

⁵² Lutz Weischer, Jennifer Morgan 'The solar economy club: implementing a leadership club approach to international climate policy', a short study commissioned by the Green Party Parliamentary Group in the German Bundestag http://tinyurl.com/16fwxko.

⁵³ See eg Environmental Defense Fund 'A home for all: architecture of a future global framework for mitigation action under the "Framework for Various Approaches" (September 2014) http://unfccc.int/resource/docs/2014/smsn/ngo/473.pdf.