

## **Something Was Rotten in the State of Denmark – Cop-Out in Copenhagen**

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## 1. Introduction

Rarely had an event generated so much anticipation, and rarely had there been such a strong disappointment afterwards as at the 15<sup>th</sup> Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) and the 5<sup>th</sup> Conference of the Parties Serving as Meeting of the Parties to the Kyoto Protocol (CMP) in Copenhagen. According to the Bali Action Plan agreed at COP 13, the Copenhagen conference was to deliver a comprehensive agreement on the future of the climate regime. More than 100 Heads of State and Government had announced their attendance and more than 40,000 participants had registered their names.

However, while there was a record number of five preparatory meetings over the course of 2009, it became clearer and clearer that the negotiations were moving too slowly. While progress was made on details, positions on the major areas of controversy hardly converged. In the immediate run-up to the conference, the Danish hosts and others therefore tried to play down expectations. They launched the idea of achieving a “politically binding” agreement in Copenhagen, which was then to be transformed into a legally binding agreement in 2010. In the end, though, the conference produced even less of a result than even the worst pessimists had expected. Instead of at least putting in place some main pillars of the future climate regime, the “Copenhagen Accord” (CA) is only a political declaration, and not even this declaration was supported by all countries. In the second week even a complete breakdown of the negotiations had seemed imminent.

Proceedings were not helped by the strategy of the Danish presidency. Perceiving the slow progress of the negotiations over the course of the year, the Danish Prime Minister Rasmussen instructed his office to develop a backup plan, a draft for a “Copenhagen Agreement”, to be put on the table as a proposal by the presidency in case the UNFCCC negotiations failed to yield an outcome. The Danish consulted with other countries on their draft, but the process was apparently intransparent to most. When The Guardian leaked a version of the text on 8 December, it produced an uproar, with many developing countries complaining that they had not been consulted and that the text was blatantly biased towards industrialised countries. On 16 December, Rasmussen took the COP presidency out of the hands of his climate minister Connie Hedegaard. As about 120 Heads of State and Government were arriving, the idea was to have the presidency represented at the same level. But apparently Rasmussen had not been briefed too well on what this position actually entailed. At one point he even beseeched the delegates’ forgiveness for not being familiar with UN procedures.

This low point in the negotiations was mirrored by a massive breakdown in the organisation of the conference. Apparently, the organisers had given little thought to the

record number of accredited participants. While the first week proceeded relatively smoothly, in the second week long queues of people seeking registration formed outside the conference centre. Many people stood waiting in the cold for up to nine hours from early morning and in the end still were not able to register and actually enter the conference.

In addition, the number of observers who were admitted into the building was continuously narrowed down over the course of the second week. In the last two days, only 300 civil society representatives were let in. While the climate negotiations had so far been among the most transparent international negotiations, the final stages of the Copenhagen conference went down with hardly any observers present. The situation was not much better for many delegates, though, as the CA was negotiated by a selected handful of countries in parallel to the UNFCCC process. The aftermath therefore saw much puzzlement about what had actually happened.

Coupled with the failure to deliver an agreed outcome as mandated by the Bali Action Plan, Copenhagen therefore stands a good chance of being remembered as the least successful climate conference ever.

This article lays out the main developments in Copenhagen as well as an assessment of the outcome. The paper first discusses the negotiation process on each of the important “building blocks” of the Bali Action Plan and then examines the CA.

In addition to the negotiations about the future climate regime, the conference also had to deal with ongoing business related to the implementation of the UNFCCC and the Kyoto Protocol. The most important aspects of these negotiations are discussed in chapter 4. The article concludes with an assessment of the conference’s outcome and a discussion of possible ways forward.

## **2. Negotiating the Future Climate Regime**

### **2.1. Mitigation**

According to the Bali Action Plan, the mitigation negotiations are proceeding under two tracks. First, the Ad Hoc Working Group on Further Commitments by Annex I Countries under the Kyoto Protocol (AWG-KP), which was established at CMP 1 in Montreal in 2005, is negotiating future emission targets for industrialised countries. Second, the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) also negotiates commitments for Annex I countries, intending to cover in particular those that have not ratified the Protocol – i.e. the USA. In addition, the LCA negotiates “Nationally appropriate mitigation actions” of developing

countries, which are to be supported by industrialised countries with technology, financing and capacity-building. Both the actions and the support are to be “measurable, reportable and verifiable”.

As has been the case since the start of the climate regime, negotiations up to and in Copenhagen continued to be plagued by fingerpointing of who should go first. Non-Annex I countries point to the historical responsibility of Annex I countries for creating the climate problem and insist that industrialised countries should therefore take the lead in combating climate change, as they have committed to in Art. 3.1 of the UNFCCC. Annex I countries for their part point to rapidly rising emissions in the large rapidly industrialising countries and demand that they need to step up their efforts as well.

Apart from specific numbers and actions this controversy also revolves around the legal structure of the future agreement. Industrialised countries are, by varying degrees, in favour of a new universal framework that would supersede the Kyoto Protocol and cover all countries. Australia has stated that they would prefer a universal framework but could also accept a two-track outcome. Japan and Russia on the other hand have announced that a continuation of the Kyoto Protocol is not an option for them. The EU has taken the position that a universal framework should be created that integrates the Kyoto Protocol. The argument of industrialised countries for creating a universal framework is to make it easier to adequately cover all major emitting countries.

The USA have demanded a new structure that should be “very different” from the Kyoto Protocol. They reject the top-down approach favoured by the EU and developing countries, according to which first an overall mitigation target would be decided for industrialised countries, which would then be broken down to the individual countries according to their relative responsibility and capability. According to the USA, the future regime should be based on a bottom-up approach. In this version, each country would basically determine its own level of ambition and the international system would mainly be a collection of actions implemented domestically.

Non-Annex I countries have denounced these positions as “killing Kyoto”. They see the Protocol as the only binding instrument for emission reductions the international community has so far been able to create and reject any suggestion to abandon it. They also see a continuation of the Protocol as a key prerequisite for maintaining the distinction between industrialised and developing countries. Creating a unified treaty would in their view blur this distinction and create a “slippery slope” where developing countries would soon also be asked to adopt binding emission targets. In their view the two AWGs should have two separate results: On the one hand new emission targets for Annex I countries under the Kyoto Protocol and on the other hand an agreement under the UNFCCC. The latter would cover commitments by the USA, mitigation actions by non-Annex I countries, adaptation, as well as financial and technological support from Annex I to non-Annex I countries.

Besides the aforementioned usual frontlines, Copenhagen for the first time also showed significant divisions among developing countries. Small island developing states (SIDS) and the least developed countries (LDCs), nowadays also called the most vulnerable countries (MVCs), demanded that the end result of the LCA negotiations should also be a protocol that would function alongside the Kyoto Protocol. Tuvalu had submitted a proposal for such a protocol in summer and demanded that adequate time be made available to discuss it. Other non-Annex I countries such as China, India and Saudi Arabia resisted this move. They argued that the available time should be focused on the most important issues and that the Tuvalu proposal was a distraction. This controversy signalled a break between the most vulnerable countries who want a binding mitigation framework for all countries and some of the major non-Annex I countries who are increasingly contributing to global emissions and apparently favour to have only a set of decisions coming out of the LCA.

As regards the level of ambition, the “ranges table” in the IPCC’s fourth assessment report has become a widely discussed benchmark. It synthesises the studies that were available at the time of writing on how to share the global mitigation effort equitably based on parameters such as emissions per capita, GDP per capita or historic emissions. According to this table, in order to achieve stabilisation of atmospheric concentrations at 450 ppm CO<sub>2</sub>-eq., Annex I countries should collectively reduce their emissions by 25-40% by 2020 compared to 1990 levels, and non-Annex I countries should achieve a “substantial deviation from baseline”. The IPCC at the time did not quantify the deviation from baseline. A further article by the two main authors of the table put the necessary deviation at 15-30% below business as usual.<sup>2</sup>

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<sup>2</sup> M. den Elzen and N. Höhne, Reduction of Greenhouse Gas Emissions in Annex I and Non-Annex I Countries for Meeting Concentration Stabilisation Targets. An Editorial Comment, *Climatic Change* 2008 (91), p. 249.

**Table 1: Necessary Change in Emissions by 2020 for Different Stabilisation Levels<sup>3</sup>**

| Scenario Category                    | Global average temperature increase | Annex I                 | Non-Annex I   |
|--------------------------------------|-------------------------------------|-------------------------|---|
| I:<br>450 ppm CO <sub>2</sub> -eq.   | 2.0-2.4°C                           | -25% to -40% below 1990 | <ul style="list-style-type: none"> <li>Substantial deviation from baseline in Latin America, Middle East, East Asia and Centrally-Planned Asia</li> <li>Non-Annex I total: -15% to -30% below baseline</li> </ul> |
| III:<br>550 ppm CO <sub>2</sub> -eq. | 2.8-3.2°C                           | -10% to -30% below 1990 | <ul style="list-style-type: none"> <li>Deviation from baseline in Latin America and Middle East, East Asia</li> <li>Non-Annex I total: 0% to -20% below baseline</li> </ul>                                       |
| IV:<br>650 ppm CO <sub>2</sub> -eq.  | 3.2-4.0°C                           | 0% to -25% below 1990   | <ul style="list-style-type: none"> <li>Non-Annex I total: 10% above to 10% below baseline</li> </ul>  |

It needs to be noted, though, that many developing countries have fiercely disputed that the two ranges actually constitute an equitable effort sharing. Also, stabilisation at 450 ppm CO<sub>2</sub>-eq. gives only a 50% chance of achieving the 2°C target and hardly a chance of achieving the 1.5°C target demanded by the most vulnerable countries. At Copenhagen, they defended their position with unprecedented determination and forcefully stated that they had not come there “to sign a suicide pact”.

What industrialised countries had put on the table did not even approach the IPCC range, however. On the surface, their pledges in Copenhagen amounted to 11-19% below 1990 levels by 2020. However, these figures contained substantial loopholes. One is the presence of “hot air”, the surplus assigned amount units (AAUs) allocated to the Central and Eastern European economies in transition (EIT). For example, the Kyoto targets of Russia and the Ukraine are stabilisation at 1990 levels. However, due to the economic collapse in the 1990s Russia’s current emissions are about 30% below 1990 levels and the Ukraine’s even 50%. According to the Kyoto rules, these surpluses can be carried over to the next commitment period. In addition, the targets Russia and the Ukraine have pledged for 2020 would create further surpluses. While Russia has pledged a target of 15-25% by 2020, the Ukraine has pledged 20%. Another loophole is the accounting rules for land use, land-use change and forestry (LULUCF). Most Annex I countries have proposed to account their LULUCF emissions based on projections rather than historic emissions. As these projections often include increased logging, countries would thus effectively be able to hide emission increases.

<sup>3</sup> N. Höhne, N. and C. Ellermann, The EU’s Emission Reduction Target, Intended Use of CDM and Its +2°C Target, 2008, p. 4.

Taking all these loopholes into account, Copenhagen might well have resulted in an Annex I emissions increase of 2-8% compared to 1990 instead of a decrease.

**Table 2: Annex I Pledges and Impact of Loopholes<sup>4</sup>**

| Measure  | Impact Relative to 1990 levels |
|--|--------------------------------|
| IPCC Target Range                                | -25% to -40% (cut)             |
| Aggregate Annex I Pledges                        | -11% to -19% (cut)             |
| Possible effect of surplus AAUs and LULUCF rules | +13% to +27% (rise)            |
| Net Impact on the Atmosphere                     | +2% to +8%                     |

By contrast, the large non-Annex I countries have put substantial national action programmes on the table. According to the UNFCCC secretariat these would amount to a 28% deviation from BAU by 2020. Executive Secretary Yvo de Boer summarised in his final press conference in Copenhagen, pledges by non-Annex I countries are at the upper end of their “range” while Annex I countries are not even at the lower end of the range suggested by the IPCC.

A further controversy in Copenhagen revolved around the verification of developing countries’ efforts. The Bali negotiation mandate was to negotiate “nationally appropriate mitigation actions by developing country Parties ..., supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner”.<sup>5</sup> That is, developing countries agreed in Bali to take verifiable actions if these are supported by industrialised country in an equally verifiable manner. In Copenhagen, industrialised countries demanded that developing countries should also submit those actions to international verification that they support through their own resources.

## 2.2. Adaptation

As one of the main building blocks of the Bali Action Plan, adaptation was a central point of discussion in Copenhagen. Expectations were high to agree on text that would guarantee the delivery of adequate and reliable finance for adaptation, prioritising not only the most vulnerable countries but also most vulnerable communities. This was supposed to include agreement on the institutional architecture of an effective and efficient adaptation framework, including provisions for an insurance and a rehabilitation (loss and damages) mechanism. Needless to say that Copenhagen did not

<sup>4</sup> *Sustainability Council of New Zealand*, Loopholes Negate Pledges for Emission Reductions, [http://www.sustainabilitynz.org/news\\_item.asp?SID=205](http://www.sustainabilitynz.org/news_item.asp?SID=205).

<sup>5</sup> Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties at its thirteenth session Decision 1/CP.13, Bali Action Plan, p.5, para. 1bii, FCCC/CP/2007/6/Add.1, 14 March 2008.

deliver on these expectations, with one paragraph on adaptation in the Copenhagen Accord and a draft decision on “Enhanced Action on Adaptation” as Addendum to the AWG-LCA draft conclusions, which includes various options on most of the articles.<sup>6</sup> Other elements of adaptation were discussed under the AWG-KP, SBSTA and SBI, but also yielding little substantive progress.

Between COP 14 in Poznan and COP 15 in Copenhagen, several rounds of climate talks were held in Bonn, Bangkok and Barcelona to prepare negotiating text, resulting in non-paper No. 53 for adaptation. The non-paper, however, remained heavily bracketed and amongst others lacked substance on the nature of the proposed adaptation framework, as well as clear commitments from developed countries.<sup>7</sup>

In Copenhagen, Parties continued discussions on the negotiating text for adaptation in informal drafting groups, trying to streamline and shorten it. Much of the discussion revolved around whether to establish an adaptation “programme” or “framework” under the Convention, but without much clarity on the actual implications of each of the options; the biggest difference apparently being that a programme, favoured inter alia by the USA, is associated with a defined period of time, whereas a framework, favoured inter alia by the European Union, is continuous. The issue could not be resolved and remains bracketed in the final LCA text. The Copenhagen Accord mentions “the need to establish a comprehensive adaptation programme including international support”.<sup>8</sup>

Other contentious issues included the integration of historic responsibility, climate insurance, an international mechanism to address loss and damages associated with climate change impacts in developing countries, especially those most vulnerable to climate change, as well as the focus on most vulnerable communities in addition to a focus on most vulnerable countries. In the LCA draft decision no reference is made to most vulnerable communities or historic responsibility as such, although option 1 on finance for adaptation refers to the “repayment of (...) climate debt”. Insurance is included and the issue of establishing an international mechanism for loss and damages also remains in the text, even though in brackets.<sup>9</sup>

Furthermore, Saudi Arabia once more raised the issue of also addressing adaptation to the impact of the implementation of response measures, i.e. emission reduction policies. The main implication of including “response measures” in the adaptation section is that

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<sup>6</sup> Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention. Draft conclusions proposed by the Chair, Addendum, Draft decision -/CP.15, Enhanced action on adaptation, FCCC/AWGLCA/2009/L.7/Add.1, 15 December 2009.

<sup>7</sup> Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Seventh session, FCCC/AWGLCA/2009/INF.2, 15 September 2009.

<sup>8</sup> Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties at its fifteenth session, FCC/CP/2009/11/Add.1, 30 March 2010, Decision 2/CP.15, Copenhagen Accord, para. 1.

<sup>9</sup> Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Draft conclusions proposed by the Chair, Addendum, Draft decision -/CP.15, Enhanced action on adaptation, FCCC/AWGLCA/2009/L.7/Add.1, 15 December 2009, para 8.

it would give oil producing countries, whose economies are affected by mitigation actions in oil importing industrialised countries the possibility to claim resources that are earmarked for adaptation activities. Although the inclusion of response measures was opposed by many other Parties, “response measures” were kept in brackets in the final LCA text and are included in the adaptation section in the Copenhagen Accord. Compared to the Bali Action Plan, in which the two issues are separated<sup>10</sup> this is a step backwards and could reopen the discussion in the next rounds of negotiations.

Overall, the AWG-LCA draft decision on adaptation includes a rather comprehensive list of what adaptation actions could include. However, it still has various options and brackets for most of its elements, missing a quantification of finance for adaptation and remaining vague on the institutional arrangements of an adaptation framework (or programme) and how to ensure that developed countries will deliver on their commitments (pending decisions on finance, technology and capacity building). The lack of any reference to most vulnerable communities or populations remains another concern as experience indicates that national adaptation programmes often do not meet the needs of the most vulnerable communities.

### **2.3. Financing**

The issue of finance had been a low priority issue in the climate negotiations for a long time. Although Articles 4.3, 4, 5 of the UNFCCC and Article 11 of the Kyoto Protocol mandate Annex II parties to provide new and additional financial resources to developing countries in support of the development of national communications, capacity-building, development and transfer of technologies, support for adaptation, support for economic diversification, support for mitigation, etc., demands of developing countries for financial resources used to receive little attention. The negotiation environment has drastically changed since the adoption of the Bali Action Plan in December 2007. Throughout the two-year-negotiations between Bali and Copenhagen, finance was negotiated as one of the most important agenda items. Developing countries have constantly reiterated that, in addition to GHG emission reductions, providing sufficient financial support is the other side of the responsibility of industrialised countries in combating climate change. Receiving financial support is therefore a key condition for developing countries to commit to mitigation actions.

Despite the existence of different negotiation items, all negotiations relevant to the finance issue have focussed on addressing either one or both of two topics: mobilisation of the needed amount of financial resources and the institutional structure of funding.

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<sup>10</sup> In the Bali Action Plan a clear separation exists between 1 (b) “Enhanced national/international action on mitigation of climate change, including, (vi) Economic and social consequences of response measures” and 1(c) “Enhanced action on adaptation” (1/CP.13).

On the mobilisation issue, a report on financial flows produced by the UNFCCC Secretariat put the financial resources needed in 2030 at 130 billion USD for mitigation activities and several tens or possibly hundreds of billions for adaptation in developing countries only.<sup>11</sup> Other estimates come to similar or even higher results.<sup>12</sup> These figures go far beyond the total amount of resource flows provided by the existing mechanisms within the climate regime – the Global Environment Facility (GEF) Trust Fund, the Special Climate Change Fund, the LDC Fund, and the Adaptation Fund – and the resources provided through the funds established outside of the Convention, most notably the World Bank’s Clean Technology Fund and Strategic Climate Fund/Pilot Program for Climate Resilience.

One of the main causes of the lack of sufficient resources is that under the current climate regime Annex II Parties provide financial contributions on an ad hoc basis, through replenishment negotiations in the case of the GEF Trust Fund and on a pledge basis in the case of the other funds. In order to ensure sufficient financial flows, it is indispensable to establish a new scheme that creates financial flows at a much higher scale and on a mandatory basis.

Regarding the institutional structure of the funding body, developing countries and industrialised countries have still not overcome the conflict they have had since the establishment of the GEF. Annex II Parties want to provide financing through bilateral or established multilateral channels such as the World Bank and the GEF. They argue that the expertise of these institutions should be used and point to the costs and effort involved with establishing new institutions. By contrast, developing countries perceive the existing institutions to be donor-dominated. They also complain that the procedures to access funding through these institutions require too much effort. They have therefore proposed to establish a new fund that would be fully accountable to the COP and operate according to the rule of one country one vote. Furthermore, in their view only resources provided through such a new fund should be counted towards industrialised countries’ financing commitments under the UNFCCC and the Bali Action Plan. In the language of the negotiation text, while industrialised countries seek wording to “strengthen” the financial mechanism of the Convention, developing countries seek to “operationalise” the financial mechanism foreseen in the UNFCCC – signalling that they consider the current operationalisation of the financial mechanism under the GEF as insufficient.

At COP 14 in Poznan developing countries had already made clear that substantial financing offers by industrialised countries would be crucial for achieving an overall

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<sup>11</sup> Investment and financial flows to address climate change: an update, Technical paper FCCC/TP/2008/7, 26 November 2008.

<sup>12</sup> See e.g. *Project Catalyst*, Towards a Global Climate Agreement, Synthesis Briefing Paper June 2009, 2009; *United Nations Department of Economic and Social Affairs*, World Economic and Social Survey 2009, Promoting Development, Saving the Planet, 2009.

agreement.<sup>13</sup> Nevertheless, progress during 2009 continued to be slow. In the run-up to Copenhagen, developed countries finally started to pledge their financial commitments with the expectation that such commitments might provide an incentive for concessions on the side of developing countries. The EU pledged USD 10.8 billion (EUR 7.2 billion, EUR 2.4 billion per year) by 2012. Japan first pledged USD 9 billion before the session. Within the framework of Hatoyama initiative, Japan raised its commitment to USD 15 billion by 2012 (including finance transfer from the public and the private sectors). However, significant progress only started when Hillary Clinton, US Secretary of State, announced in her speech in Copenhagen that “The United States is prepared to work with other countries toward a goal of jointly mobilising 100 billion dollars a year by 2020 to address the climate change needs of developing countries.”<sup>14</sup> This figure eventually made its way into the Copenhagen Accord (see below).

On a related issue, the SBSTA further considered the issue of emissions from international aviation and maritime transport (bunker fuels). As these emissions are not yet covered under the climate regime, proposals to introduce a levy or an emissions trading system on bunker fuels were discussed. Depending on the specific design, the potential revenue has been estimated at up to 20 billion Euro. Despite rather constructive informal discussions, no agreement could be reached. In particular the issue if potential mitigation targets and measures should be global (advocated by industrialised countries) or if commitments should be limited to industrialised countries (supported by developing countries) could not be resolved. In the end the SBSTA merely invited the secretariats of the International Civil Aviation Organisation (ICAO) and the International Maritime Organisation (IMO) to report on their relevant work at future sessions of the SBSTA.

## 2.4. Technology

Although contained in Articles 4.1(c) and 4.5 of the framework convention since its adoption in 1992, technology transfer was treated as a low-priority issue in the climate negotiations until Bali, similar to the finance issue. In Bali, developing countries were able to move it high up the agenda, establishing technology transfer as one of the building blocks of the Bali Action Plan. Up to COP 14 in Poznan, however, negotiations on the future design of a dedicated mechanism for technology transfer under the UNFCCC did not show much progress and focused on procedural issues instead. Negotiations accelerated in the various negotiation rounds of the technology group of the AWG-LCA in 2009, resulting in non-paper 47 in Barcelona. This iteration

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<sup>13</sup> T. Santarius, C. Arens, U. Eichhorst, D. Kiyar, F. Mersmann, H. E. Ott, F. Rudolph, W. Sterk, R. Watanabe, Pit Stop Poznan. An Analysis of Negotiations on the Bali Action Plan at the Stopover to Copenhagen, 2009.

<sup>14</sup> S. Goldenberg, US bids to break Copenhagen deadlock with support for \$100bn climate fund, guardian.co.uk, <http://www.gurdian.co.uk/environment/2009/dec/17/us-copenhagen-100bn-climate-fund>.

of the text was already fairly well developed, with only a limited number of options for possible institutional arrangements remaining.

Expectations, therefore, were high for Copenhagen to reach an agreement on this part of the Bali Action Plan. Negotiations under the AWG-LCA immediately moved to informal consultations in the hope of finding agreement on the options of the arrangement as fast and efficiently as possible, without having to “play for the audience”. Even though a final agreement could not be reached, some progress was made during the negotiations in Copenhagen. The text ultimately presented to the COP as proposed by the Chair<sup>15</sup> had moved considerably forward, omitting most of the different options. According to the LCA text, a Technology Mechanism to accelerate technology development and transfer of both adaptation and mitigation will be established. It will consist of a permanent Technology Executive Committee, which will replace the Expert Group on Technology Transfer, and a Climate Technology Centre.

The Executive Committee will act as oversight board to the Mechanism, and will, inter alia, provide analysis on policy and technical issues, prepare criteria for support eligibility, consider actions to remove barriers to technology transfer, as well as monitor and assess technology-related action and support both for adaptation and mitigation. Decisions on guidance, membership and voting rules of the committee have not yet been taken. According to a delegate, a consensus concerning the composition of the committee emerged during the negotiations. Whereas the current EGTT is composed of negotiators, the new expert group may consist of “true” technology experts combining science and field practice. Their tasks defined in the text do not really differ from those that had been defined for the EGTT.

The Technology Centre will be established with a view to improving the flow of information on available technologies, RD&D and transfer options. It will, inter alia, provide advice for the preparation of Technology Needs Assessments as well as training, information and workforce development programmes, improve access to publicly available information, and establish national and regional technology innovation centres. The Technology Centre will get support by regional units and by a climate technology network that is to be established to facilitate cooperation e.g. with national institutions or other international technology centres. The details of establishing the centre and its network structure as well as financing modalities will be covered in future negotiations.

Consensus could not be reached on some of the key components of the mechanism. First of all, there was no agreement on the status of the Mechanism itself. Whereas the “establishment” of the mechanism points to an immediate start of its work, the text also contains another option, “A technology mechanism is hereby defined”, which would

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<sup>15</sup> Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Draft conclusions proposed by the Chair, Addendum, Draft decision -/CP.15, Enhanced action on technology development and transfer, FCCC/AWGLCA/2009/L.7/Add.3, 15 December 2009.

imply a start in an undefined future. Moreover, disagreement remains on the relationship of the Mechanism with a possible future Financial Arrangement under the Convention (see section 2.3). The two options currently present in the text would give either the Mechanism or the Arrangement more leverage over funds committed to technology transfer. A dedicated fund for technology transfer, as proposed by G77+China, is not any longer an option in the text. Developed country parties abided by the principle that finance was not part of the mandate for the technology group and should be kept well apart.

Intellectual property rights (IPRs) have been a highly debated issue in climate negotiations. Developed country parties and developing country parties have presented completely different views on this topic and have not found a point of compromise so far. IPRs were firstly raised by China as one of the barriers preventing smooth technology transfer. Since then many developing countries have repeatedly mentioned this issue and suggested that the current IPR system is inappropriate for enhancing technology transfer for preventing climate change. G77 and China (Antigua) stressed the necessity to differentiate between public/private technologies and to ensure the affordability of private technologies by measures to resolve IPR barriers.<sup>16</sup> AOSIS, Argentina, Bolivia, China, Ghana, Guyana, the LDCs, India, Tuvalu, Philippines, Saudi Arabia, Pakistan, as well as Panama, Paraguay and El Salvador supported the view in their individual submissions although they present different views regarding the way to address this issue.<sup>17</sup> By contrast, developed countries stress the necessity to keep a strong IPR protection. For example, the EU insists that strong IPR protection encourages RD&D and deployment.

In fact, because of the highly technical nature of the IPR controversy, it is difficult to judge whether and to what extent intellectual property might be an obstacle to the transfer of technology. The LCA text contains two options on how to deal with IPRs: First, it is proposed to have no reference at all in the text. The second option contains various proposals that call upon parties to remove barriers arising from IPRs. However, it seems that developing countries bring their IPR proposals forward mainly as a bargaining chip. Once a satisfactory deal is reached in terms of financial support for mitigation and adaptation and in terms of ambitious commitments for Annex I countries they may drop the subject. This conclusion can be drawn from the fact that there were not any heated discussions on IPRs during the negotiations in Copenhagen. Most Southern Parties indicated that IPRs would not be a very contentious issue eventually. Only Bolivia seriously insisted on having a decision included into the LCA text that facilitates free access to patents. The Andean country had stressed in its submission that technology related to climate change must be fully within the public domain, not under any private monopolistic patent regime that obstructs and makes technology transfer

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<sup>16</sup> Ideas and proposals on the elements contained in paragraph 1 of the Bali Action Plan, Submissions from Parties, Addendum, Part I, 10 December 2008, FCCC/AWGLCA/2008/MISC.5/Add.2 (Part I).

<sup>17</sup> Ideas and proposals on the elements contained in paragraph 1 of the Bali Action Plan, Submissions from Parties, 13 March 2009, FCCC/AWGLCA/2009/MISC.1.

more expensive to developing countries. In a nutshell, it is still to be decided whether purchasing of licenses and other IPR issues should be included into the eligible activities for support under the technology mechanism.

The LCA technology draft has been thoroughly negotiated. However, apart from the financing and IPR issues the final text also still contains some options and placeholders concerning the reporting line between the committee and the centre or the link between the committee and agreement on finance and the issue of intellectual property rights. There are still different views on the full mandate (advisory committee vs. active role in allocating funds) and composition of the Technology Executive Committee as well as the institutional structure of the Climate Technology Centre. The text has therefore been referred back to the reinstated AWG-LCA for further negotiations.

## **2.5. Reducing Emissions from Deforestation and Forest Degradation (REDD)**

According to the Bali Action Plan, the future agreement is to include a policy framework for reducing emissions from deforestation and forest degradation (REDD). As the text agreed upon in Bali additionally mentions forest conservation, sustainable management of forests and the enhancement of forest carbon stocks, this process has subsequently been called 'REDD plus', basically covering all categories of forest-related activities. Since Bali, progress has mainly been made regarding methodological questions. Discussions at the Poznan conference in 2008 primarily focused on the participation of indigenous peoples to possible policy approaches, and on the role of conservation and sustainable management of forests. While the negotiations on the overall climate regime did not advance much during the different climate talks in 2009, REDD plus made considerable progress: at the end of the November 2009 climate talks in Barcelona, Parties agreed on language which many felt could be used as the basis for negotiations on a concrete agreement text in Copenhagen. It included, inter alia, the strategic goal to halve deforestation by 2020 and ending it by 2030, consolidated text on safeguards to respect the rights of indigenous peoples', as well as on conversion of natural forest. This text was forwarded as a non-paper to AWG-LCA 8 as a part of an annex to the meeting's report.<sup>18</sup>

At Copenhagen, REDD plus was discussed mainly in two bodies – the AWG-LCA, which was dealing with policy approaches and positive incentives on issues relating to REDD plus, and the Subsidiary Body for Scientific and Technological Advice (SBSTA), which focused on further methodological guidance for REDD plus. Towards the end of the conference, REDD also became a topic under the COP as deforestation is also mentioned in the Copenhagen Accord.

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<sup>18</sup> Report of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention on its seventh session, held in Bangkok from 28 September to 9 October 2009, and Barcelona from 2 to 6 November 2009, FCCC/AWGLCA/2009/14, 20 November 2009, Annex III.C.

Under SBSTA, Parties mainly discussed whether emission reference levels should be set nationally or sub-nationally. A sub-national approach would be implemented in a defined geographical area or at project scale with individual ownership, while a national reference level consists of a broader policy approach and creates country ownership. The US, supported by Colombia, strongly advocated a sub-national approach, while many other Parties favoured a national approach to REDD. The US favours the former approach as it is open to wide participation and attractive to private investors, which could use carbon credits generated by individual project activities to offset domestic emissions. The EU and others, however, claim that this approach might encourage shifting the problem of deforestation into other areas, thereby creating a severe leakage problem. They argue that a national overview of all REDD projects and the emissions reductions achieved by them would allow for a consistent policy approach, which could address the real drivers of deforestation and properly address domestic leakage. However, no consensus could be reached. The final SBSTA decision, which was accepted by the COP plenary, does not solve this question but states that “developing country Parties in establishing forest reference emission levels and forest reference levels should do so transparently taking into account historic data, and adjust for national circumstances”.<sup>19</sup>

The negotiations under the AWG-LCA revolved mainly around targets and goals for REDD plus, safeguards, and funding for REDD plus activities, especially for early actions. Prior to the conference, developing country Parties had shown willingness to commit to targets on deforestation under the condition that Annex I Parties provided adequate funding. At Copenhagen, however, no consensus could be achieved on the linkages between financial assistance and targets. One by one, both the mid-term target and the long-term goal on deforestation were deleted from the negotiation text. Furthermore, Parties discussed the content of and the way to refer to safeguards such as the rights of Indigenous Peoples.

The final draft of the AWG-LCA on REDD plus contains a placeholder for a target as to when to halt deforestation and to the costs of achieving that goal. It also does refer to safeguards like the rights of indigenous peoples and biodiversity. However, the safeguards were moved into the preamble of the text, which calls for a mere “promotion” or “support” of them. Further, the text discourages, but only in weak language, the conversion of natural forests into plantations.<sup>20</sup>

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<sup>19</sup> Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties at its fifteenth session, Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, FCCC/CP/2009/11/Add.1, 30 March 2010, Decision 4/CP.15.

<sup>20</sup> Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention. Draft conclusions proposed by the Chair, Addendum, Draft decision -/CP.15, Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of

### 3. The Copenhagen Accord

As it became apparent that the AWG negotiations were not going to bridge the divides, the Danish Presidency brought back their idea of a Presidency proposal. On 16 December, Connie Hedegaard announced that the Presidency was going to table its proposal for the outcome of the conference: two texts “based substantially on the two texts forwarded by the AWGs.” However, developing countries voiced massive opposition to this plan of “parachuting in” a new text. The Danish presidency subsequently held informal consultations and was finally forced to give up their plan and continue negotiations on the basis of the AWG texts.

Nonetheless, the Danish launched a high-level “Friends of the Chair” group in parallel, probably to avoid the embarrassing situation of having 120 Heads of State and Government assembled at a summit without a formal outcome. This group consisted of about 30 countries who were mostly represented by their Heads of State and Government. As this process was separate from the UNFCCC process and took place completely behind closed doors there are only partial accounts of what actually happened.<sup>21</sup> Breakthrough was apparently achieved when President Obama accidentally walked in on a meeting of the “BASIC” countries – Brazil, South Africa, India and China. They proceeded to reach agreement on key issues of what became the “Copenhagen Accord”, which was then further refined together with the other “Friends of the Chair”.<sup>22</sup>

At 3 a.m. on Saturday, Prime Minister Rasmussen re-opened the COP plenary and explained that he had consulted with leaders and mobilised support for an accord. He then asked Parties to consult within their groups and reconvene an hour later. This announcement again provoked a barrage of objections from developing countries that was even more fierce than at the intended launch of a Presidency proposal on 16 December. The objections related to both the process and the content. On the process, developing countries complained about the intransparency and lack of respect for the UN process. On content, especially SIDS and LDCs attacked the accord as much too weak.

The debate dragged on until Saturday afternoon. In the end, it was not possible to formally adopt the Accord, as the Presidency had intended. Instead, the COP was only able to agree on “taking note of” the Accord. Formally, only Tuvalu, Venezuela, Bolivia, Cuba, Costa Rica, and Nicaragua voiced explicit opposition to formal adoption

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forests and enhancement of forest carbon stocks in developing countries, FCCC/AWGLCA/2009/L.7/Add.6, 15 December 2009.

<sup>21</sup> One very comprehensive account is given by *B. Müller*, Copenhagen 2009, Failure or final wake-up call for our leaders?, 2010.

<sup>22</sup> For a detailed account from a Chinese perspective, see: *Zhao C., Fan T. and Dongze W.*, Verdant Mountains Cannot Stop Water Flowing; Eastward the River Keeps on Going - Premier Wen Jiabao at the Copenhagen Climate Change Conference, <http://www.fmprc.gov.cn/eng/zxxx/t648096.htm#>.

of the Accord. However, many other countries made clear that they would accept the Accord only with strong misgivings.

So what is actually written in the Copenhagen Accord (CA)? While the CA does include a reference to the 2°C target, it is not in the form of a commitment. Instead, there is a “recognition” of the “scientific view that the increase in global temperature should be below 2 degree Celsius.”<sup>23</sup> The CA also includes a call for review in 2015, which would include consideration of the 1.5°C target, a concession to the most vulnerable countries.<sup>24</sup>

The CA does not contain any mid-term or long-term emission targets, neither for countries nor globally. In particular China was blamed for blocking agreements on these points. However, the issue should be seen in a broader context (see chapter 5).

Instead, the CA initially contained two empty appendices. Annex I countries were to inscribe emission targets for 2020 into Appendix I by 31 January. Non-Annex I countries, except LDCs and SIDS, were to inscribe nationally appropriate mitigation actions in Appendix II, also by 31 January. The UNFCCC Secretariat later clarified that this was not a “hard” deadline but only the deadline for the official conference report.

The controversy around the international verification of developing countries’ actions was resolved through a compromise. According to the CA, non-Annex I countries will report on the implementation of their unilateral actions through biannual national communications, which will include national inventory reports, “with provisions for international consultations and analysis under clearly defined guidelines that will ensure that national sovereignty is respected.” Actions that seek international support are to be recorded in a registry, together with technological, financial and capacity building support. These supported actions are to be “subject to international measurement, reporting and verification in accordance with guidelines adopted by the Conference of the Parties.”<sup>25</sup>

On adaptation, the CA agrees that “enhanced action and international cooperation on adaptation is urgently required” and “that developed countries shall provide adequate, predictable and sustainable financial resources, technology and capacity building to support the implementation of adaptation action in developing countries”.<sup>26</sup>

On the issue of vulnerability, the CA defines vulnerable countries as “especially least developed countries, small island developing States and Africa”.<sup>27</sup> This definition is

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<sup>23</sup> Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties at its fifteenth session, Decision 2/CP.15, Copenhagen Accord, para. 1, FCCC/CP/2009/11/Add.1, 30 March 2010.

<sup>24</sup> *Ibid.*, para. 12.

<sup>25</sup> *Ibid.*, para. 5.

<sup>26</sup> *Ibid.*, para. 3.

<sup>27</sup> *Ibid.*

anything but precise. Whereas the Bali Action Plan and the latest Report of the AWG-LCA focus on “countries in Africa affected by drought, desertification and floods”<sup>28</sup>, the CA mentions Africa in general. This woolly phrase occurs again in paragraph 8 of the Accord regarding the funding for vulnerable developing countries (“such as the least developed countries, small island developing States and Africa”), further adding to the uncertainty over who will be eligible for the limited adaptation funding. Working with the LCA language would therefore be very helpful to provide greater clarity.

On financing, the CA foresees USD 30 billion of “new and additional resources” for the period 2010-2012 as collective commitment by developed countries “with balanced allocation between adaptation and mitigation”.<sup>29</sup> This wording, however, leaves the question of prioritisation unanswered – balanced does not imply that the same amount of money will be made available for adaptation as for mitigation, leaving a question mark in place for the amount of quick-start finance for adaptation.

In addition, industrialised countries commit to a goal of mobilising jointly USD 100 billion a year by 2020 to meet the needs of developing countries “in the context of meaningful mitigation actions and transparency on implementation.” The funding is supposed to come “from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.”<sup>30</sup> The CA envisages the establishment of a “High Level Panel” to study the potential contributions from different sources of revenue.<sup>31</sup>

The CA also establishes a “Copenhagen Green Climate Fund” and a “Technology Mechanism”. The Accord decides that the Copenhagen Green Climate Fund shall be established as an operating entity of the financial mechanisms of the Convention to support projects, programmes, policies and other activities in developing countries related to mitigation including REDD-plus, adaptation, capacity building, technology development and transfer. However, the CA contains no details on the implementation of the fund or the Technology Mechanism.<sup>32</sup>

The Copenhagen Accord also explicitly recognises the importance of REDD and calls for an “immediate establishment” of such a mechanism. “Scaled up, new and additional predictable and adequate funding” is to be provided to developing countries.<sup>33</sup> Details on how to operationalise these provisions are missing in the Accord. During the last days of the conference, six countries including the US, the United Kingdom, and

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<sup>28</sup> Report of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention on its eighth session, held in Copenhagen from 7 to 15 December 2009, Advance Version, Annex I, Draft decisions presented to the Conference of the Parties at its fifteenth session for consideration and adoption, A. Draft decision -/CP.15, Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, para. 9, FCCC/AWGLCA/2009/17, 5 February 2010.

<sup>29</sup> Supra, note 23, para. 8.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid., p.7, para 9.

<sup>32</sup> Ibid., p.7, para. 10f.

<sup>33</sup> Ibid., pp.6f., para 8.

Australia pledged USD 3.5 billion over the next three years to kick-start REDD. However, these commitments are of a pure voluntary nature and not legally binding in any way.

Initially, there was no clarity on the function of the CA for the further development of the climate regime. Some observers were of the opinion that it was only a snapshot of the current state of the negotiations and should merely serve as an input to the ongoing AWG negotiations. Others thought that the CA represented a fundamental “reset”. They posited that the CA was going to be the main future framework, that it would potentially be developed further outside the UNFCCC and that the UNFCCC would be relegated to the function of a notary. However, various countries such as the BASIC countries have by now decidedly taken the position that the CA should serve merely as input to the AWG negotiations.<sup>34</sup>

The CA and the AWG texts would then serve as complementary documents. The AWG texts have progressed considerably on the implementation details but agreement on the fundamental questions has so far been impossible. By contrast, the CA addresses the fundamental issues but has next to no details on implementation. This relates for example to the Copenhagen Green Climate Fund and the Technology Mechanism. The CA has resolved that there shall be a technology mechanism and a new fund, and that the fund shall serve as an operating entity of the Convention’s financial mechanism. But as the CA contains no details on their implementation, it will now fall to the AWG-LCA to fill in these details based on the current negotiation texts.

## 4. Ongoing Business

### 4.1. Adaptation

The **Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change** (NWP) was discussed under the SBSTA 31. The Nairobi work programme is a five-year programme (2005-2010) to assist all Parties, in particular developing countries, to improve their understanding and assessment of impacts, vulnerability and adaptation to climate change and to make informed decisions on practical adaptation actions. Under SBSTA 31, the Convention on Biological Diversity reported on the results of the Expert Group on Biodiversity and the IPCC reported on the contribution of the Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA). The TGICA facilitates distribution and application of

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<sup>34</sup> *The Hindu*, Joint Statement issued at the conclusion of the Second Meeting of Ministers of BASIC Group, New Delhi, <http://www.hindu.com/nic/2010draft.htm>.

climate change related data and scenarios and contributes to building capacity in the use of data and scenarios for climate-related research in developing countries.

Discussions took place in informal consultations on reporting burdens regarding networking partnerships and the catalytic role of the Nairobi Work Programme. The SBSTA in its conclusions mainly welcomed the progress made in the implementation of the Nairobi Work Programme and in particular the direct engagement of a wide range of organisations. It encouraged these organisations to continue and where possible strengthen their efforts to assist Parties in understanding climate change impacts and vulnerabilities and taking informed decisions.<sup>35</sup> Uncertainty remains on the continuation of the Nairobi Work Programme beyond 2010, when the work programme expires.

Progress on the implementation of the **Buenos Aires Programme of Work on adaptation and response measures** (decision 1/CP.10) was discussed under the SBI in the plenary, contact groups and informal consultations. The main aim of the programme is to describe ways to respond to the adverse effects of climate change and implementing adaptation. No agreement was reached on the draft decision text proposed by the SBI Chair Bratasida, as several developing countries did not find their views sufficiently represented in the text. So, the SBI, in its conclusions, inter alia requested the Chair to continue developing a draft decision text and continue discussion at the next SBI meeting. It also noted the documents issued to date and recalled that Parties and relevant organisations were invited to submit views on further action on the matter by 22 March 2010, including views on issues to be included in the draft decision text.

#### *On finance for adaptation*

The **Adaptation Fund** Board presented its progress report<sup>36</sup> to the CMP plenary, highlighting three main actions taken during the reporting period to operationalise the Adaptation Fund:

1. Adoption of policies and guidelines for accessing funds.
2. Capitalisation of the Adaptation Trust Fund through monetisation of Certified Emission Reductions (CERs) started in May 2009, yielding ca. USD 33 million by December 2009, of which ca. 23 million could be spent on projects. They estimated that up to 2012 at the very most USD 500 million could be monetised, meaning that the fund will need resources in addition to CER revenues.
3. Decision to accept Germany's offer to confer legal capacity on and host the Adaptation Fund Board. Once legal capacity has been conferred to the Adaptation

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<sup>35</sup> Nairobi work programme on impacts, vulnerability and adaptation to climate change, FCCC/SBSTA/2009/L.17, 11 December 2009.

<sup>36</sup> Report of the Adaptation Fund Board, Note by the Chair of the Adaptation Fund Board, FCCC/KP/CMP/2009/14, 19 November 2009.

Fund Board – after finalisation of the national parliamentary process in Germany, which is expected to take place before the end of 2010 – the Adaptation Fund Board will finally be able to enter into funding agreements to start concrete projects or programmes in developing countries – nine years after establishment of the fund had been agreed at COP 6bis in Bonn.

In its decision, the CMP endorsed the decision of the Adaptation Fund Board to accept Germany's offer. It further decided that both the Chair AND the Vice-Chair should jointly serve as the legal representatives of the Board and adopted the related amendments to the rules of procedures.<sup>37</sup> This will ensure that developing countries will be represented at all times.

The Adaptation Fund Board also held a separate side event, reporting in more detail on its progress, modalities for direct access and answering questions. Funding will be provided on a full adaptation cost basis of projects and programmes to address the adverse effects of climate change. As opposed to incremental costs, full cost of adaptation means the (full) costs associated with implementing concrete adaptation projects and programmes whose principal and explicit aim is to adapt and increase climate resilience.<sup>38</sup> Nevertheless, some uncertainty remains on how the full cost principle will be handled in practice in such cases where adaptation measures are necessary elements of large undertakings with multiple benefits, such as in water management.

The future role of the Adaptation Fund in a post-2012 architecture remains unclear. While the Board emphasised their engagement in ensuring that the 10-year effort spent on setting up and operationalising the Adaptation Fund will not be lost, they made clear that ultimately the role of the Adaptation Fund in a future climate regime will depend on decisions on the financial mechanism and the overall post-2012 architecture.

Whether or not to extend the **share of proceeds** to JI was discussed again under the AWG-KP, but remained without a final decision, leaving two options in the text: one to take no action and the other to extend the share of proceeds to JI. The option on extending the share of proceeds decides that the share of proceeds should be transferred to the Adaptation Fund to assist “developing country Parties that are particularly vulnerable to the adverse effects of climate change”, but also includes in bracketed text Parties that are particularly vulnerable to “the implementation of response measures”.<sup>39</sup>

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<sup>37</sup> Report of the Adaptation Fund Board, Proposal by the President, FCCC/KP/CMP/2009/L.2, 16 December 2009.

<sup>38</sup> Report of the Adaptation Fund Board, Note by the Chair of the Adaptation Fund Board, FCCC/KP/CMP/2009/14, 19 November 2009.

<sup>39</sup> Report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its fifth session, FCCC/KP/AWG/2009/L.15, 16 December 2009, para. 35.

Under the SBI, the paper by the **Least Developed Country Expert Group (LEG)** on “Support needed to fully implement national adaptation programmes of action (NAPAs)” indicated, amongst others, a need for financial resources for the full implementation of priorities identified in NAPAs of at least USD 1.93 billion. Subsequently, the SBI, recognizing the urgent and immediate adaptation needs of the Least Developed Countries, encouraged Parties to continue to provide financial and other support for the timely implementation of priority activities identified in National Adaptation Plans of Actions, including through contributions to the LDCF.<sup>40</sup>

## 4.2. Financing

The topic of financing was taken up not only as one of the building blocks under the AWG-LCA, but also relating to the implementation of the existing mechanisms. Parties addressed the fourth review of the financial mechanisms, the report of the GEF to the COP and guidance to the GEF from the COP under the Convention, the LDC fund, and the report from the Adaptation Fund Board (see above).

The controversies around the fourth review of the Convention’s financial mechanisms were essentially the same ones as under the AWG-LCA. While industrialised countries stressed that they have provided new and additional funding for global environmental benefits to developing countries, developing countries argued that the support has been insufficient to cover the increasing agenda of the Global Environment Facility as agreed upon under the conventions. In the end, the whole decision text was bracketed and forwarded to COP 16.<sup>41</sup>

## 4.3. Technology

On the first day of the conference, the Expert Group on Technology Transfer (EGTT) presented its progress report for 2009 to both SBs in the plenary.<sup>42</sup> The report referred especially to the EGTT’s implementation of its work and on “Performance indicators to monitor and evaluate the effectiveness of the implementation of the technology transfer framework” it had drafted.<sup>43</sup> The EGTT has sought to develop and test 40 performance indicators for application to the framework by the SBI. The report contains the results of testing these indicators and recommendations for their use. The report states that it is

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<sup>40</sup> Matters relating to the least developed countries, Draft conclusions proposed by the Chair, FCCC/SBI/2009/L.27, 11 December 2009, p.2, para. 14.

<sup>41</sup> Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties at its fifteenth session, Decision 6/CP.15, Fourth review of the financial mechanism, FCC/CP/2009/11/Add.1, 30 March 2010.

<sup>42</sup> Report of the Expert Group on Technology Transfer for 2009, Note by the Chair of the Expert Group on Technology Transfer, FCCC/SB/2009/INF.6, 12 November 2009.

<sup>43</sup> Performance indicators to monitor and evaluate the effectiveness of the implementation of the technology transfer framework, FCCC/SB/2009/4, 11 November 2009.

of high importance to focus on causality of these factors. Often analysis is constrained by the availability of adequate data. The report finds that stakeholder involvement is key to the legitimacy of the undertaking and concedes that there is great need for capacity building to create appropriate monitoring and evaluation systems nationally and internationally.

The GEF reported its progress on the implementation of the Poznan Strategic Programme on Technology Transfer, which the GEF had been tasked to develop at COP 13 in Bali. Under the Poznan Strategic Programme, the GEF will help developing countries to conduct or update their technology needs assessments and will finance pilot projects for technology transfer. In 2009, the Programme focused on supporting developing countries with technology needs assessments and the build-up of 14 proposals of technology transfer pilot projects, with one medium sized project (up to USD 1 million) and 13 full-sized projects (more than USD 1 million). In total, funding by the GEF technology transfer window was USD 36.8 million, with the GEF Trust Fund adding another USD 21.2 million. Additionally, the projects attracted co-financing of more than USD 195 million. The technologies targeted by the proposed projects include technologies on renewable energy (solar, biomass, wind, hydrogen storage of renewable energy, and wave), energy efficiency (insulation materials and efficient and HFC-free appliances), transport (“green” trucks), composting, carbon capture and storage from sugar fermentation, and membrane drip irrigation (for adaptation).<sup>44</sup>

EGTT and GEF activities were then forwarded to a joint SB contact group for consideration, which adopted conclusions at the end of the first week. The SBs welcomed EGTT’s report on performance indicators and approved its rolling programme of work for 2010-2011. The EGTT will organize a regional workshop for Latin America and the Caribbean on preparing technology transfer projects for financing and develop an online training programme on preparing technology transfer projects. Furthermore, the group of experts will deal with how to facilitate collaborative R&D on environmentally sound technologies under the convention and how to engage the business community.<sup>45</sup> By COP 16, the EGTT will have completed its pending activities and delivered its final report to the SBSTA and the SBI.

The SBI further invited the GEF to provide a progress report on the Strategic Programme with a special view to long-term aspects at the 32<sup>nd</sup> meeting of the SBI in June. In keeping with the COP 14 decision, the GEF has identified technology transfer as a long-term priority of its climate change focal area and has included it as one of the key objectives for the proposed climate change strategy for GEF-5 (2010-14). According to the GEF-5 programming document that was prepared by the GEF secretariat, technology transfer will be promoted in all GEF-eligible countries and at

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<sup>44</sup> Second interim report of the Global Environment Facility on the progress made in carrying out the Poznan strategic programme on technology transfer, FCCC/SBI/2009/14, 23 November 2009.

<sup>45</sup> Supra, note 42.

various stages of the technology development cycle.<sup>46</sup> In large developing countries and emerging economies with strong technical capacity and market potential, emphasis will be placed on market demonstration and commercialisation of innovative, emerging technologies. In small, low-income countries, GEF support will focus on deployment and diffusion of commercially available technologies through investment, capacity building, and technology cooperation. The GEF will provide financial and technical support for the establishment and operation of technology centres and networks at the global, regional, and national levels, as appropriate, to support and accelerate cooperative actions on technology and the diffusion of environmental technologies for mitigation and adaptation in developing countries. The GEF secretariat will establish a technology transfer coordination function as part of its knowledge management function, and link it with regional technology transfer centres to be established in regional development banks.

#### **4.4. Flexible Mechanisms**

After the Copenhagen conference, the future design of the flexible mechanisms remains unclear. Although the Clean Development Mechanism (CDM) was on the agenda of both the CMP and the SBSTA, no fundamental reform of the CDM was agreed on.

Once again, developing countries stressed the importance of equitable regional distribution of CDM projects, especially concerning Africa. More than  $\frac{3}{4}$  of CERs are generated by CDM projects in the three largest host countries China, India and Brazil. To direct more CDM projects to less and least developed countries, Senegal asked for a fund to prepare help prepare CDM Project Design Documents (PDDs). Rwanda and Swaziland emphasized capacity building to be central for a regional redistribution of CDM projects while Sierra Leone and Bangladesh called for the simplification of all CDM processes and the streamlining of the CDM to make it more user-friendly. Both Ethiopia and Uganda suggested to cut back the additionality requirement and the Democratic Republic of the Congo recommended a pre-assessment of projects based on sustainable development indicators as well as a limit of credits for each project to prevent windfall benefits.

In the final CMP decision, it was decided to provide for particular support for host countries with less than 10 registered projects.<sup>47</sup> On the one hand, credits will be granted to pre-finance the development of PDDs, validation and the first verification. In addition, registration fees have to be paid only after the first issuance of CERs. On the

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<sup>46</sup> GEF-5 Programming Document, Prepared by the GEF Secretariat, GEF/R.5/25, February 12 2010.

<sup>47</sup> Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its fifteenth session, Advance Version, Decisions adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, Decision 2/CMP.5, Further guidance relating to the clean development mechanism, FCCC/KP/CMP/2009/21/Add.1, 30 March 2010.

other hand, the CDM Executive Board (EB) may now act proactively in developing methodologies that suit the countries in question instead of having to wait for proposals from specific projects as is customary. This is an important development that should be extended. According to some observers, however, supporting countries with less than 10 registered projects is too wide a scope. They claim that it is especially the initial phase with the first three projects that causes most difficulties. Moreover, the emphasis of the promotion of projects in LDCs was eliminated in the final decision although these are exactly the countries most in need of assistance.

As a further incremental reform step, the COP decided to introduce an appeals procedure against decisions of Designated Operational Entities (DOEs), the entities charged with validating and verifying projects, and decisions of the EB. Rejections of projects by the EB can now be called into question, but not decisions on the registration of projects. *Directly involved stakeholders, defined in a conservative manner* are entitled to submit requests. These, however, remain to be defined more explicitly by the EB.

In addition, the EB is to intensify its guidance for and supervision of DOEs. Thus, the CMP assigned the EB to strengthen the monitoring of the DOEs' performance and publish relevant information. The Climate Secretariat is to further the qualification of auditors. Furthermore, it will carry out a preliminary technical examination of submitted projects in the future to ease the EB's workload. On the other hand, project developers and DOEs will be enabled to respond more easily to aspects of the reviews they are not satisfied with.

Furthermore, the code of conduct for EB members which has already been adopted will be amplified: curricula vitae and statements of EB members regarding conflicts of interests now have to be published on the homepage of the UNFCCC. However, there still is no exact definition of the term "conflict of interest" in this context. The CMP's request to develop quality requirements for future EB members is another step towards the professionalisation of the EB.

Moreover, the COP assigned the EB to develop a simplified test to demonstrate additionality for renewable energy projects generating less than 5 MW and energy efficiency projects generating less than 20 GWh of energy savings annually. In the future, the EB will be allowed to give priority to methodologies that are applicable especially in underrepresented sectors or regions. The EB is to develop clearer definitions of parameters for the investment analysis and the barrier analysis for projects that are the first of its kind as well as for the test of common practice.

A further step to strengthen the environmental integrity of the CDM is the introduction of standardised baselines, i.e. the definition of benchmarks for specific project types. Their design, however, remains unclear. The SBSTA is to work on modalities and procedures for developing standardized baselines and report back to CMP 6.

HFC-23 project activities and Forests in Exhaustion were discussed only briefly under SBSTA. Instead, the possible inclusion of Carbon Capture and Storage (CCS) projects in the CDM dominated the discussions in both the SBSTA and the CMP. In these heated discussions, Brazil, Ecuador and AOSIS strongly opposed CCS in the CDM, pointing out the long-term permanent responsibilities and liabilities this technology implies which make CCS “not compatible with the very nature of the CDM and environmental integrity” (AOSIS). Paraguay highlighted that CCS could facilitate increasing emission technologies and obstruct the remodelling of the economies. Joined by the Republic of Korea and Zambia, it emphasized that more research on CCS and a cautious approach were necessary. On the other hand, the EU, Japan, Australia, China, the Arab States, Sierra Leone, Ghana and Nigeria strongly favoured the inclusion of CCS in the CDM. Saudi Arabia in particular pushed hard for a decision on CCS in Copenhagen, rejecting any further delay of the decision of Nairobi to agree on a specified timetable. An agreement could be achieved neither on the CCS nor on HFC-23 project activities.

Discussions on Joint Implementation focused on the question of whether to expand the *Share of Proceeds* to JI (see section 4.1). The guidance on JI<sup>48</sup> adopted by the CMP is rather general. The CMP requested the Joint Implementation Supervisory Committee (JISC) to strengthen its relations with approval bodies, auditors and project developers, to clarify the profundity of project verifications by the certifiers and to report to the coming CMP on the verification of JI projects.

## 5. Assessing the Copenhagen Outcome – The World on a >3°C Trajectory

### 5.1. Between Strong Demands and Weak Results

Viewed in a broader context, the road from Bali to Copenhagen has not been without its successes. In particular, the Copenhagen deadline injected a significant dynamic into national discussions. One country after the other elaborated its targets and actions and presented them to the international audience. The last two years have therefore led to a much better understanding of national mitigation potential, what actions can be taken and what actions countries are prepared to take. This dynamic would hardly have happened without the Copenhagen deadline.

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<sup>48</sup> Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its fifteenth session, Advance Version, Decisions adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, Decision 3/CMP.5, Guidance on the implementation of Article 6 of the Kyoto Protocol, pp.12ff, FCCC/KP/CMP/2009/21/Add.1, 30 March 2010.

A further major success relates to the framework of discussion. While in particular the small island states have always been the “conscience” of the climate negotiations, they are now fighting with the desperate courage of those who have their backs against the wall. Indeed, due to their interventions Copenhagen saw a significant shifting of the goalposts of what level of climate change may be considered “acceptable”. The 1.5°C target is increasingly replacing the 2°C target as a yardstick of what is actually adequate. While the climate negotiations usually revolve around abstract figures and mechanisms and most negotiators exhibit hardly any sense of urgency, SIDS and LDCs forcefully reminded the climate summit what these negotiations are actually about: the very existence of whole nations. For example, Tuvalu pointed out that most of the country’s population lives at only 2m above sea level and the highest point of the country lies at 4m. Like other small island states, Tuvalu is therefore in danger of being submerged by the rising sea level. Tuvalu’s plea to the assembled international community was therefore: “The fate of my country lies in your hands”.

Moreover, the urgency of the problem increasingly resonates within society. Unprecedented numbers of protesters took to streets during the summit to demand an ambitious outcome. In Copenhagen alone tens of thousands marched on the conference centre despite freezing temperatures. One of the anecdotes of the Copenhagen summit tells how a journalist watched the protesters’ sea of torches and a tiresome plenary statement side by side on a split screen and remarked: “This guy’s world is changing and he doesn’t even know it.”

In stark contrast, the formal outcome of the Copenhagen climate summit is as weak as could possibly have been imagined. Instead of an agreement that would set the world on an ambitious emission reduction trajectory, there is only a political declaration, and not even this declaration was supported by all countries.

Indeed, the way in which the Copenhagen Accord has been negotiated has led to a massive erosion of trust between Parties. In the final plenary, many countries massively criticised the process as having been fundamentally intransparent and undemocratic. Small-group settings may be indispensable to facilitate an agreement, but countries must choose themselves whether they wish to be in the room or be represented by others.

On substance, the Copenhagen Accord has no clear commitment to the 2°C target, much less the 1.5°C target. The offers by industrialised countries for emission reduction targets did not move a single inch between the start and the end of the conference. Even encouraging signals may turn out to be hollow in the end. While the support of industrialised countries for mobilising up to 100 billion USD in financial assistance for developing countries by 2020 may be welcomed, it is as yet completely unclear where this money is supposed to come from and there is no guarantee that industrialised countries will not simply relabel the funding they have pledged for achieving the Millennium Development Goals.

## 5.2. Pledges and Level of Ambition

On mitigation, 55 Parties met the 31 January deadline for inscribing targets and actions in the appendices of the CA. By mid-April 76 Parties had made submissions. Content-wise most submissions did not deviate from the pledges made before Copenhagen. Canada weakened its pledge from -3% by 2020 to +3, while Iceland strengthened its pledge from -15% to -30% against 1990.<sup>49</sup>

Collectively, the pledges add up to much less than would be required to maintain a good chance of meeting the 2°C target, let alone the 1.5°C target. The “Climate Action Tracker” by Ecofys, Climate Analytics and the Potsdam Institute for Climate Impact Research concludes that current pledges would lead to a temperature increase of more than 3°C by 2100. According to this analysis, 2020 emissions would need to lie below 40-44 Gt CO<sub>2</sub>-eq. to maintain a 50:50 chance of limiting global warming to 2°C. Business as usual based on current policies is projected at around 57 Gt CO<sub>2</sub>-eq. The Climate Action Tracker estimates that the weakest pledges would deliver a reduction of 2 Gt CO<sub>2</sub>-eq. from BAU, while even the strongest pledges would achieve only 7 Gt CO<sub>2</sub>-eq. – leading to 2020 emissions of 50-55 Gt CO<sub>2</sub>-eq.<sup>50</sup>

UNEP has synthesised recent studies on 2°C emissions pathways and compared them with the Copenhagen outcome. These studies give emission targets for 2020 to be in line with the 2°C target between 40.0 and 48.3 Gt CO<sub>2</sub>-eq. Based on current pledges, UNEP estimates the expected emissions for 2020 at between 48.8-51.2 Gt CO<sub>2</sub>-eq, depending on whether high or low pledges will be fulfilled. If the more ambitious emission pledges are fulfilled, the gap is 0.5-8.8 Gt CO<sub>2</sub>-eq, with an intermediate value of 4.7. If the low emission pledges are fulfilled, the gap is 2.9-11.2 Gt CO<sub>2</sub>-eq, with an intermediate value of 7.1.<sup>51</sup>

Based on analysis by McKinsey, Project Catalyst gives figures very similar to those of the Climate Action Tracker. Project Catalyst also highlights that if emissions are not brought on a 2°C trajectory by 2020, it would hardly be possible to return to a 2°C trajectory post-2020. According to their analysis, this would require a reduction from BAU of 30 Gt CO<sub>2</sub>-eq. in 2030, while they estimate that only 19 Gt CO<sub>2</sub>-eq. will be feasible below costs of USD 60 per tonne. The main reason is that massive amounts of capital stock will be built and replaced until 2020. For example, more than half of the power supply required in 2020 has yet to be built. If these additions and replacements of existing stock are built using high-emission technology, reducing emissions by 30 Gt

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<sup>49</sup> A list of all submissions is available at: Homepage UNFCCC, Copenhagen Accord, <http://unfccc.int/home/items/5262.php>.

<sup>50</sup> Homepage Climate Action Tracker, Detailed Information on Individual Country Pledges for Greenhouse Gas Emission Reductions, <http://www.climateactiontracker.org/>.

<sup>51</sup> *United Nations Environment Programme*, How Close Are We to the Two Degree Limit? Information Note, UNEP Governing Council Meeting & Global Ministerial Environment Forum, 24-26 February 2010 Bali, Indonesia.

CO<sub>2</sub>-eq. by 2030 would require abandoning huge amounts of capital stock before the end of its useful life.<sup>52</sup>

### 5.3. Financing and Technology

On finance, the Accord touches upon the two most critical issues, mobilisation of the needed amount of financial resources and an equitable and effective institutional structure of the funding mechanisms. However, details on “effective and efficient fund arrangements” are missing entirely in the Accord, as well as any attempt to quantify the finance that will be made available by when. Also, there is no clear language on whether this “new multilateral funding” will be truly additional to existing Official Development Assistance (ODA) commitments. Germany, for instance, remains a strong opponent to providing funding in addition to the 0.7% GDP that have been pledged for development aid for the first time in 1970, but have only been achieved by a handful of developed countries so far.

Apart from limited short-term finance, the Copenhagen Accord therefore provides very little commitment to deliver “adequate, predictable and sustainable financial resources”. Instead, the Accord envisages a high-level panel under the guidance of, and accountable to, the COP to study the contribution of the potential sources of revenue, including alternative sources of finance, towards meeting this goal.<sup>53</sup>

As the CA was not formally adopted and there are hence questions on whether and how it can be operationalised, United Nations Secretary-General Ban Ki Moon on 12 February announced the establishment of a new High-Level Advisory Group on Climate Change Financing. The new Group is co-chaired by Prime Minister Meles Zenawi of Ethiopia and Prime Minister Gordon Brown, UK, and includes Heads of States and Government, high-level officials from Ministries and Central Banks, as well as experts on public finance, development and related issues. With a balance in representation between developing and developed countries, the Group members are expected to produce a final report containing recommendations before the next Conference of the Parties to the UNFCCC in Mexico in December 2010. Initial outputs are to be produced for the climate negotiations in May/June.

Moreover, in order to have the Green Climate Fund function fully as an operating entity of the financial mechanisms of the Convention, it is indispensable to clarify the relationship between the Fund and the GEF, as the GEF, the current operational entity of the financial mechanism of the Convention, already launched its fifth replenishment

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<sup>52</sup> *Project Catalyst*, Towards a Global Climate Agreement, Synthesis Briefing Paper June 2009, 2009.

<sup>53</sup> Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009, Addendum, Part Two: Action taken by the Conference of the Parties at its fifteenth session, FCCC/CP/2009/11/Add.1, 30 March 2010, Decision 2/CP.15, Copenhagen Accord, para. 1.

negotiations and is about to conclude negotiations in early 2010 with the view to start the fifth replenishment period in July 2010, before COP 16.

On technology, the progress achieved in the AWG-LCA and later confirmed by the Copenhagen Accord, to establish a Technology Cooperation Mechanism is generally a welcome development: A mechanism as a framework consisting of various instruments for technology cooperation under the UNFCCC has been defined. However, clarity is needed on how to turn the LCA text and the Accord into an operating mechanism. Besides, there is still room for manoeuvre for developing countries to redefine the technology mechanism as a fund.

The institutional structure of the LCA/CA Technology Mechanism, consisting of an expert committee and a technology centre that is supported by regional units should be decided on very soon by the Parties. Otherwise, precedents may be created by others: Even though it has not yet been defined where the regional units mentioned in the LCA text may be located, the GEF intends to support the establishment of such units within the regional development banks.

## 6. Negotiating in a Climate of Fear

### 6.1. Global Mikado

The ultimate cause for the weak outcome of Copenhagen is easy to discern. Despite the unprecedented attendance of Heads of State and Government, climate change is still far away from becoming an overriding concern. There is an almost universally-held belief that protecting the climate is going to impose massive economic costs, and that therefore this “burden” can only be taken up if shared equitably by all major emitters: While industrialised countries are afraid of losing industrial jobs to the rapidly industrialising countries, those in turn remain convinced that the way to catching up with industrialised countries and eradicating their still widespread poverty will require expanding the use of fossil fuels. As one key EU negotiator once stated on the side: “Of course the EU wants to lead – but not from too far out front as this would hurt our economy.”

This fear of economic loss prevails even though various studies have shown that the risk of “carbon leakage” is actually much more moderate than assumed and that most industries should be able to adjust to strengthened climate policies without state support or protection from outside competitors.<sup>54</sup> It is apparently also unmoved by numerous

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<sup>54</sup> See, e.g., *Carbon Trust*, Tackling carbon leakage. Sector-specific solutions for a world of unequal carbon prices, 2010.; *J.E. Bardoff*, International Trade Law and the Economics of Climate Policy:

reports showing that not only developing but also industrialised countries dispose of substantial “no regret” emission reduction potential, studies not only produced by environmental think tanks but also by more mainstream analysts such as McKinsey.<sup>55</sup>

With this as the basic outlook, it is not surprising that all countries see shifting as much of this “burden” as possible to others as a priority. None of the major emitters is prepared to move unless everybody else moves as well:

- The industrialised countries that have ratified the Kyoto Protocol are not prepared to go any further without significant action by the USA and the rapidly industrialising countries. Ideally, they want to have the Protocol replaced by a new universal framework that also covers the USA and the rapidly industrialising countries. In particular Japan and Russia have explicitly stated that their emission reduction pledges are not meant for a second Kyoto period.
- The G-77 and China want the Kyoto Protocol to continue as a reflection of industrialised countries’ historical responsibility, in parallel to a separate outcome under the LCA.
- The USA insists on a bottom-up approach where countries would more or less only notify internationally what they have previously decided to do nationally. They also insist that the degree of bindingness must be the same for all the major emitters. A demand that is vehemently rejected by developing countries.

The negotiations are hence caught in a psychology of Mikado where whoever moves first loses.

## 6.2. Industrialised Countries and Leadership

The cause behind the climate crisis needs to be accounted for when evaluating the Copenhagen outcome: Three quarters of the historical emissions that have now filled the atmospheric capacity to the brim have been caused by Annex I countries. Accordingly, Art. 3.1 of the UNFCCC commits the developed country Parties “to take the lead in combating climate change and the adverse effects thereof.”<sup>56</sup> In practice, when factoring out the countries of the former Eastern Bloc whose economies collapsed in the 1990s, emissions from industrialised countries actually increased by 12.8% between 1990 and 2007.<sup>56</sup>

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Evaluating the Legality and Effectiveness of Proposals to Address Competitiveness and Leakage Concerns, Prepared for Brookings Forum, Climate Change, Trade and Competitiveness: Is a Collision Inevitable? 2008; J.-C. Hourcade, D. Demailly, K. Neuhoff, M. Sato, M. Grubb, F. Matthes, F. V. Graichen, Differentiation and Dynamics of EU-ETS Industrial Competitiveness Impacts, final report, 2007.

<sup>55</sup> See, e.g., *Project Catalyst*, Towards a Global Climate Agreement. Synthesis Briefing Paper June 2009.

<sup>56</sup> *United Nations Framework Convention on Climate Change*, Trends in aggregate greenhouse gas emissions, 1990-2007, [http://unfccc.int/ghg\\_data/ghg\\_data\\_unfccc/items/4146.php](http://unfccc.int/ghg_data/ghg_data_unfccc/items/4146.php).

Their performance in the run-up to Copenhagen and at the conference itself was not much better. Even in the best case industrialised countries emission reduction pledges added up to less than 20% below 1990 levels by 2020. Taking into account the loopholes that were on the table in Copenhagen, such as creative accounting in the forestry sector and carry-over of the “hot air” from the Kyoto Protocol’s first commitment period, the result of Copenhagen might even have resulted in an emissions increase in industrialised countries.

From this perspective, the failure of Copenhagen is actually preferable to an agreement that would have locked the world into an even more unsustainable long-term emissions trajectory.

And yet, despite having put so little on the table themselves, industrialised countries insisted on enhanced developing country actions as a prerequisite for making their own, clearly insufficient, commitments legally binding. In addition, after the conference European countries strongly accused China of having been uncooperative. British climate secretary Milliband stated that China, Sudan, Venezuela, Bolivia, Nicaragua and Cuba had tried to “hijack” the conference.<sup>57</sup> German environment minister Röttgen stated that China had acted as a “blocking power” to safeguard narrow national interests.<sup>58</sup> One main complaint was that China had apparently blocked agreement on reducing global emissions by 50% by 2050, with industrialised countries reducing their emissions by 80%.<sup>59</sup> The point is, setting a global target for 2050 and a target for industrialised countries will implicitly also set a target for developing countries.

And it would be a highly inequitable one. Total 1990 CO<sub>2</sub> emissions excluding land use, land-use change and forestry (LULUCF) amounted to 21.13 Gt CO<sub>2</sub><sup>60</sup>; a 50% reduction by 2050 would therefore lead to emissions of 10.565 Gt CO<sub>2</sub>. Total 1990 Annex I emissions excluding LULUCF were 14.22 Gt CO<sub>2</sub><sup>61</sup>; a 80% reduction by 2050 would therefore leave 2.844 Gt CO<sub>2</sub>. This would leave 10.565-2.844 = 7.721 Gt CO<sub>2</sub> for non-Annex I. According to the UN, the 2050 population in developed countries is projected at 1.28 billion, while developing country population is projected 7.9 billion (UN DESA 2008). On this basis, people in developed countries would still be allowed to have twice the per capita emissions of developing countries in 2050: 2.21 t per person in developed countries vs. 0.98 t per person in developing countries.

In addition, industrialised countries basically ignore that from the point of capability, developing countries face a much more daunting challenge than industrialised countries. While industrialised countries are basically finished with building up their physical

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<sup>57</sup> E. Miliband, China tried to hijack Copenhagen climate deal,

<http://www.guardian.co.uk/environment/2009/dec/20/ed-miliband-china-copenhagen-summit>.

<sup>58</sup> dpa, UN-Klimaverhandlungen: EU kämpft um Macht, [http://www.co2-handel.de/article185\\_13462.html](http://www.co2-handel.de/article185_13462.html).

<sup>59</sup> M. Lynas, How do I know China wrecked the Copenhagen deal? I was in the room,

<http://www.guardian.co.uk/environment/2009/dec/22/copenhagen-climate-change-mark-lynas>.

<sup>60</sup> World Resources Institute, Climate Analysis Indicators Tool, <http://cait.wri.org>.

<sup>61</sup> Ibid.

infrastructure, in many developing countries the transport infrastructure is patchy to non-existent, decent housing is lacking and an estimated two billion people still have no access to modern energy services for basic needs such as lighting, heating and cooking, to name just a few areas. Any definition of human development that provides for basic human needs will require significant increases of energy-related services to provide for clean and healthy cooking facilities, lighting, access to water and sanitary facilities, health services etc. As Yvo De Boer quipped after the G8 summit in July 2009, asking for action from developing countries before industrialised countries come up with funding plans and set goals for their own 2020 emissions cuts is “like jumping out of a plane and being assured that you are going to get a parachute on the way down.”<sup>62</sup>

The performance of the EU as self-declared climate leader was especially sobering. First, despite its claims to the contrary even the conditional EU target of 30% never reflected its “fair share”. Most effort sharing proposals conclude that a “fair share” of the EU in the global effort to move to a 2°C trajectory would be a target of at least 35%.<sup>63</sup> Second, due to the impacts of the recession, the EU would have to work hard in order NOT to meet its unilateral 20% target.<sup>64</sup> Nevertheless, even when the conference was on the brink of collapse the EU could not muster the courage to take the lead and raise the level of ambition to a 30% reduction target.

The US administration for its part apparently had not come to Copenhagen to negotiate compromises but to extract maximum concessions from the other countries in order to appease the opponents of the climate legislation in Congress.

In fact, if there are any players who have been injecting some dynamic in this process, they have been the rapidly industrialising developing countries. As recently as three years ago, at the climate conference in Nairobi, they remained stuck in their dug-out trenches and rejected any notion that they should contribute more to fighting climate change. One year later in Bali, one after the other they stepped forward and announced that they were prepared to contribute their fair share to global climate protection. This year in Copenhagen, as outlined above, they had actually put pledges on the table that are at the upper end of the IPCC range, whereas the pledges by industrialised countries might not lead to any emission reductions relative to a 1990 baseline.

Many are now asking whether a setting where more than 190 countries negotiate is actually up to the challenge of rapidly solving the climate problem. The critical point, however, is not so much the number of participants but rather the lack of political will. The last years have in fact seen quite a number of small-group discussions in the G8, G20 and the Major Economies Forum. Yet, these talks have been plagued by the same divisions as the UNFCCC negotiations. At issue is especially the uncertain participation

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<sup>62</sup> *Reuters*, G8 makes scant progress to Copenhagen climate pact, <http://www.reuters.com/article/idUSTRE56873020090709>.

<sup>63</sup> *Supra*, note 3.

<sup>64</sup> S. de Bruyn, S., A. Markowska and M. Davidson, Why the EU could and should adopt higher greenhouse gas reduction targets, A review, 2010.

of the USA, coupled with the position of the other industrialised countries that participation of the USA is an absolute precondition for an agreement and hence further action on their part.

### **6.3. Who Will Break the Deadlock?**

A breakthrough will arguably only be achieved if one of the major countries breaks with this paradigm and convinces itself that protecting the climate is in its own best interest irrespective of what anybody else is doing. As long as climate leadership is seen as a recipe for economic disaster, countries will never move up to the necessary level of ambition. By contrast, if one of the major economic powers decided to forge ahead and get serious about creating a low-carbon economy, it can be assumed that the other countries would quickly follow suit for fear of being left behind.

Due to its massive economic and technological potential, the USA would theoretically be the first candidate to take the lead on creating a low-carbon economy. However, even though much has moved under the Obama administration, the state of discussion in the USA is still years behind that in most other countries. In particular, most of the Republican party appear dead-set on blocking any progress on climate legislation (and indeed any initiative of the Obama administration). Coupled with the requirement for a supermajority in the Senate this may lead to further deadlock for years to come. The rest of the world might therefore want to consider whether the way forward should lead around rather than through the USA.

The second candidate for taking the lead is the EU. History shows that any major progress in the climate negotiations came about when the EU was able to form a “green coalition” with progressive developing countries and thus isolate the naysayers. The EU’s strategy in the run-up to Copenhagen was the exact opposite: The EU’s main priority seemed to be to create a united front with the other Annex I countries and in particular to get the USA on board. Crucially, this involved publicly abandoning the Kyoto Protocol in favour of a new universal framework that would bind all major emitters. With this move, the EU crossed the most important red line of developing countries, who now perceived the EU as having joined the camp of those who want to drastically weaken the legal status of industrialised countries’ commitments. At the same time, it was clear that the USA was not ready to commit to any system of binding numerical mitigation targets that would be similar to the Kyoto Protocol. A single universal framework could therefore only be weaker than Kyoto. In sum, the EU antagonised potential allies among developing countries without having any prospect of getting anything in return from the USA. Moreover, even if agreeing on a new universal framework that is as stringent as the Kyoto Protocol was politically possible, replicating in a new instrument the level of technical detail for accounting and trading emissions that has been achieved under the Kyoto Protocol would take years, threatening to create a gap after the expiry of the Kyoto Protocol’s first commitment period.

A key factor is that the enlarged EU with its now 27 member states is no longer the essentially Western European EU that took the lead on the Berlin Mandate and rescuing the Kyoto Protocol after the US defection. The new member states are much less wealthy than the old ones and to a certain extent it is understandable why countries such as Poland, which derives more than 90% of its electricity from coal, have difficulties with committing to aggressive mitigation actions. As long as each year sees a new round of EU-internal bickering about who should contribute how much, the EU will continue to be paralysed and sidelined in the UNFCCC negotiations. To be able to regain its former international stature, the EU will therefore probably need to work out a long-term internal effort sharing arrangement as the basis for presenting a united front internationally. As part of this, the economic powerhouses of Western Europe will probably need to offer the new members states substantial and reliable support for transitioning to a clean energy future.

A third possibility is that China will continue to accelerate its decarbonisation efforts and ultimately convince itself that meeting its development goals and controlling emissions are actually compatible. Already today, China has emerged as major player on the renewable energy scene, engendering a massive expansion domestically, buying up Western companies and pushing its way into the international markets. A recent report shows that Chinese investments in clean energy jumped by 50% in 2009 alone to reach USD 34.6 billion, far more than any other G20 country and up from USD 2.5 billion only 5 years ago. Another recent report notes that clean energy will be one of the world's largest industries by 2020, accounting for as much as USD 2.3 trillion – with China right in the middle of it.<sup>65</sup>

Also in the field of energy efficiency, China has been accelerating its efforts again since 2005, aiming at a 20% reduction of energy intensity per GDP in the period 2005-2010. Although China is not expected to meet the 20% target, officials expect that up to 18% may be achieved. China will continue its efficiency efforts in the next five-year-plan period (2011-2015).

The Carnegie Endowment for International Peace notes regarding the much-maligned Chinese target to reduce its carbon intensity by 40-45% by 2020: “No developing country in economic history—other than post-Mao China—has cut its energy-related greenhouse gas emissions growth so deeply for so long (...) The current energy intensity policy (...) can legitimately be described as severe, even draconian (...) The policy has forced closure of tens of thousands of factories, power plants, and production lines that failed to meet the standards. It is unimaginable that such a policy could ever be enacted in the United States, much less be continued for another decade.”<sup>66</sup>

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<sup>65</sup> K. Gordon, J. L. Wong and JT McLain, *Out of the Running? How Germany, Spain, and China Are Seizing the Energy Opportunity and Why the United States Risks Getting Left Behind*, 2010.

<sup>66</sup> W. Chandler, *Memo to Copenhagen: Commentary is Misinformed – China's Commitment is Significant*, 2009, pp. 2, 4f.

Having been humiliated during the industrial revolution, China's leaders are clearly determined to be at the forefront of the clean energy revolution. Currently, however, while wind mills are going up in China at record speed, so are coal power plants. The country already has one foot planted in the future, but its other foot remains rooted in the fossil past. But should the Chinese decide to put both feet on the path to the future, the enormous labour pool, low labour costs and rising technological capacity of this country of 1.3 billion people might make for bleak prospects for industrialised countries who failed to make use of their technological edge while they still had it.

However, while China might decide to take a lead on combating climate change, industrialised countries with their historical responsibility for creating the problem have no justification for demanding it to.

## **7. Which Way Forward for International Climate Policy?**

### **7.1. A Piecemeal Approach**

Clearly, Parties are not ready to agree on a comprehensive global framework to fight climate change. They have fundamentally different views about the meaning of “common but differentiated responsibilities” and “polluter pays”. Continuing the current package approach aiming for a comprehensive agreement where “nothing is agreed until everything is agreed” is therefore a recipe for continuing the current stalemate. At the same time, the message from climate science is clear: action over the next years is crucial if there is to be any chance of keeping global warming below 2°C.

It may therefore be sensible to take a piecemeal approach to constructing the future climate regime and prioritise actions over form while the fundamentals of a comprehensive agreement are negotiated. COP 16/CMP 6 in Cancún should therefore adopt an interim framework that is capable of delivering immediate emission reductions and laying the groundwork for eventual adoption of a comprehensive treaty or treaties. Such a Cancún Plan of Action could have the following key planks: First, a firm commitment to negotiate a comprehensive treaty or treaties within a realistic timeframe, such as 2015, and second, an interim framework to cover the interval including the following elements:

- A firm commitment to agree on industrialised country targets for a five-year second commitment period under the Kyoto Protocol by COP 17 in 2011 at the latest. Preferably, industrialised countries should take the lead and agree on their targets at

COP 16 already and most countries' level of ambition should be substantially strengthened.

- Integration of US climate legislation, which urgently needs to be passed before COP 16.
- Transposition of the NAMAs notified under the CA into the UNFCCC process, with a firm commitment to develop a fully functional system for implementing these NAMAs, associated financial, technological and capacity building support by Annex I countries and MRV under the LCA track by COP 17 in 2011 at the latest. These would initially be adopted in the form of COP decisions, establishing the basis for working towards a treaty format by 2015.
- Immediate agreement on finance and support for adaptation building on the Adaptation Fund

Continuation of the Kyoto Protocol is a fundamental condition of non-Annex I engagement, and this is a valid demand as Annex I countries have basically failed to do their homework for almost 20 years. A demonstration by industrialised countries that they are finally prepared to actually take the lead is therefore a fundamental element for building the necessary trust that will be needed to eventually forge a comprehensive agreement. Moreover, non-Annex I countries have done what Annex I have demanded. They have stepped up and submitted credible mitigation targets and actions that are able to deliver substantial emission reductions.

The ball is therefore now squarely back in the field of Annex I countries. In addition, from the practical side, the Kyoto Protocol is the only instrument the international community currently has for delivering emission reductions, and it is an instrument that is fully operational and credible. Abandoning Kyoto in favour of creating a new approach from the ground up would set the international community back by several years at least, which climate protection cannot afford.

## **7.2. Continuing Kyoto**

The one actor capable of securing a second Kyoto commitment period is the EU. So far, the EU has apparently been driven by fear that all the other Annex I countries might jump ship and leave the EU countries as the only ones who are regulated under the Protocol after 2012. But instead of being paralysed by the prospect of such a vicious circle dynamic, the EU should take up the challenge and create a virtuous circle, securing Kyoto commitments from the other Annex I countries one after the other.

To regain its credibility, the EU should first step up its own target for 2020. As discussed above, even the 30% target was never actually an adequate reflection of its "fair share". In addition, due to the impacts of the recession the 20% target hardly constitutes a deviation from business as usual anymore. The recession has also

significantly reduced the costs of achieving a 30% reduction and even a 40% reduction could be achieved at very moderate costs.<sup>67</sup>

As for gaining allies, the obvious places to start are the more progressive Annex I countries Norway, Switzerland and Japan. Norway has already taken the lead by putting forward an emission reduction target of 40%. Japan has demanded the creation of a single comprehensive agreement, but generally the new government is much more progressive than the old one, as shown by its pledge of a 25% reduction target relative to a 1990 level. Along with Norway, Japan is one of the very few countries whose reduction pledge is rated as “sufficient” by the “Climate Action Tracker”. If pressed, Japan might find it very difficult to openly abandon support for a treaty which bears the name of its old capital.

Russia has also explicitly demanded the creation of a single universal framework. But Russia’s emissions are about 30% below 1990 levels and it disposes of massive no-regret potential to achieve further reductions. The EU could fill the concept of Joint Implementation with real life and instead of the piecemeal project-by-project approach of current JI offer Russia a strategic partnership to mobilise Russia’s energy efficiency potential. In addition, the natural gas that would then no longer be wasted in Russia might be used to help to wean the EU off coal.

Finally, Australia has stated that it could live with a two-track approach. Which leaves Canada as a major source of Annex I emissions, but here the only hope is probably to wait for a change in government.

Furthermore, the EU will have to mend fences with developing countries. Apart from returning to the Kyoto framework and stepping up its own target this will crucially involve making good on its financial promises. In addition to actually delivering the money, this money should in fact be new and additional instead of simply being repurposed from development budgets. A major share of adaptation funding should be provided to the Adaptation Fund, which has the full backing of developing countries.

### **7.3. LCA and USA**

As for the LCA track, once the package approach is given up and the issue linkage with Annex I targets is removed, agreements might be found much more easily. The LCA texts have in fact progressed substantially in shrinking the number of pages and brackets. For example, the facilitator of the REDD-plus negotiations recounts that agreement on REDD plus was within reach in Copenhagen, but was held back by the

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<sup>67</sup> *Supra*, note 54.

controversies about the fundamentals of the new regime.<sup>68</sup> In addition, while the CA fails completely in the area of mitigation targets, its appendix does now spell out the mitigation actions developing countries are prepared to take, and it has provided some helpful political input on the implementation of mitigation actions and associated support from Annex I countries. The focus should now be put on transferring the NAMAs inscribed in the Copenhagen Accord to the UNFCCC process and on elaborating the modalities for the Copenhagen Green Climate Fund, the Technology Mechanism, and measuring, reporting and verification of actions and associated support.

As for the USA, the federal political system is evidently still years behind everybody else's learning curve on climate change – except for Canada perhaps. Nevertheless, the time for action is now. The mid-term election in November 2010 is currently expected to lead to Democratic losses or even an overall Republican victory, which would forestall US climate action for years to come. In addition, the passage of health care reform has removed a major obstacle as the health care debate fully absorbed available capacity. Leaders from the EU and other countries should therefore communicate directly to the Obama administration and members of Congress that passage of climate legislation in 2010 is of vital importance.

Evidently, such messages will be all the more credible the more they are backed up by commitments from the governments who send them. And it bears reminding that increasing numbers of citizens, states, cities and businesses are demanding that the USA should step up to the plate. If the other Annex I countries go ahead with a second Kyoto commitment period and non-Annex I countries go ahead with credibly implementing NAMAs, the USA might quickly find itself in a position of being the big laggard of international climate policy. It may be hoped that such a situation would be intolerable to the more progressive elements within the USA and help to create the political space that is needed to pass US climate legislation.

Indeed, concerned citizens will have a key role to play in all countries where democratic expression is possible. Protecting the climate will not become an overriding priority for governments as long as their voters do not demand it or even fear its economic costs. Any major transformation is bound to produce winners as well as losers, and the prospective losers usually have a much clearer picture of what is going to happen to them than the prospective winners and are therefore much more motivated to defend their interests. Oil and other energy companies as well as energy-intensive industries have therefore been doing their best for two decades to slow climate policy down as much as possible. These delaying tactics will only be overcome if citizens make climate change an issue which elections are fought over, put their politicians on the spot and demand that they put the public interest over special interests.

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<sup>68</sup> T. La Vina, *Ways Forward after Copenhagen: Reflections on the Climate Change Negotiating Process by the REDD-plus Facilitator*, 2 February 2010, <http://www.field.org.uk/news/redd-plus-facilitator-tony-la-vi%C3%B1a-suggests-ways-forward-after-copenhagen>.

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