1. 1980 - 1990s: Global warming as an emerging policy issue - UN Climate Convention

The adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 formed the conclusion of a range of activities and meetings on the emerging topic of climate change. In 1979, the World Meteorological Organisation (WMO) had organised the First World Climate Conference (Geneva, Switzerland) to assess existing knowledge of how higher atmospheric greenhouse gas (GHG) concentration levels could lead to average temperature increases.

From a political perspective, human induced global warming was in those days mainly considered a theoretical possibility, insufficiently backed by scientific evidence and surrounded by relatively large uncertainties. During the 1980s, climate models were further improved and awareness of the global warming issue among the public and politicians increased. In 1988, the WMO and the UN Environment Programme (UNEP) established the Intergovernmental Panel on Climate Change (IPCC) in order to bundle scientific knowledge into an intergovernmental scientific panel under the auspices of the UN.

In 1989, UNEP and the WMO initiated the preparations for negotiations on a framework convention on climate change. The idea was that this convention would contain basic principles and agreements, which could subsequently be worked out in further detail through amendments and protocols. During 1990 and 1992, negotiations took place during five sessions of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC).

A key challenge during the negotiations, was to agree on a global responsibility for the global climate and climatic impacts and how this responsibility could or should be differentiated between countries based on historical GHG emission patterns and socio-economic welfare levels. The latter concept has become known as the principle of ‘common but differentiated responsibilities’.

The INC negotiations produced a text, which was adopted on 9 May 1992, ahead of the UN Earth Summit (Rio de Janeiro, Brazil), as the UN Framework Convention on Climate Change (UNFCCC). The ultimate objective of the Convention is to achieve a stabilisation of GHG concentrations in the atmosphere "at a level that would prevent dangerous anthropogenic interference with the climate system."

2. 1995 - 2005: Agreement on climate policy commitments and toolbox - the Kyoto Protocol

At its first session in 1995, the Conference of the Parties to the UNFCCC (COP) agreed to start a new negotiation process (the Berlin Mandate) towards a protocol with quantified emission reduction targets to be achieved within a certain timeframe. An important reason for this step was the conclusion by the IPCC Second Assessment Report that the “balance of evidence suggests a discernible human influence on global climate”. The result of this process was the adoption of the ‘Kyoto Protocol’ in December 1997 (at Kyoto, Japan).

At the heart of the Kyoto Protocol was a joint GHG emission reduction target for industrialised countries of at least 5% below 1990 levels to be achieved within a 5-year commitment period from 2008 through 2012. In practice, industrialised countries obtained emission quotas, which set an upper limit on their annual GHG emissions. Countries could increase their quotas through collaboration with other countries, either in the form of emission reduction projects from which carbon credits could be bought, or through purchase of parts of other countries’ quotas (in case other countries’ actual emissions were lower than their quotas). Project collaboration with carbon credit trading among industrialised countries was called Joint Implementation (JI). Projects between industrialised and developing countries were arranged under the Clean Development Mechanism (CDM). The direct trade between countries of parts of emissions quotas was arranged as international emissions trading.
Nevertheless, negotiations towards the Kyoto Protocol (1995-1997) had been slow. Again, countries struggled with the principle of ‘common but differentiated responsibilities’. For instance, industrialised countries doubted the usefulness of a protocol without commitments for rapidly developing countries such as China, India, Mexico and Brazil.\textsuperscript{15} Even shortly before the negotiations in Kyoto, the US Congress adopted the Byrd-Hagel resolution instructing US negotiators not to agree on a protocol without ‘meaningful participation’ by the developing country Parties. Such a text would be considered harmful for US economic interests.\textsuperscript{16} Eventually, the US delegation accepted a quantified emission reduction commitment, even though developing countries were exempted from such commitments in the Kyoto Protocol. The Kyoto Protocol was never ratified by the US Congress and, in March 2001, the newly elected US President George W. Bush decided to withdraw US support from the, in his view, “fatally flawed” text\textsuperscript{17}.

Despite the US withdrawal, other countries, with a leading role for the EU, managed to keep the Kyoto process on-going throughout 2001, partly by allowing industrialised countries more room for counting sequestration of carbon in soils and trees and agreeing on more flexible compliance procedures. Although these concessions were criticised for reducing the environmental integrity of the Kyoto Protocol,\textsuperscript{18} they secured the support of important industrialised countries such as Russia, Canada, Japan and Australia.\textsuperscript{19} Among the key milestones of the ongoing negotiations was the Marrakech Accords of November 2001, which defined detail modalities and procedures for implementation of the Kyoto Protocol and its policy instruments.\textsuperscript{20} Another milestone was the ratification of the protocol by the Russian Federation in November 2004, so that it could enter into force.\textsuperscript{21}

\textbf{3. 2005 - 2010: Stronger links between climate and development}

Immediately after the entry-into-force of the Kyoto Protocol in 2005,\textsuperscript{22} a new round of negotiations started on its continuation beyond 2012. As the Kyoto Protocol had not been ratified by all industrialised countries (e.g., USA), two negotiation tracks emerged. In 2005, at the first meeting of the Parties to the Kyoto Protocol, the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) was established.\textsuperscript{23} In 2007, as part of the Bali Plan of Action (COP13), the Ad-hoc Working Group on Long-term Cooperative Action (AWG LCA) was established with participation of all UNFCCC Parties, including the USA.\textsuperscript{24}

In 2007, the Bali Plan of Action (COP13) outlined a process to "reach an agreement on long-term cooperative action up to and beyond 2012."\textsuperscript{25} Between 2007 and 2009, expectations for the outcome of the Copenhagen Climate Conference\textsuperscript{26} grew to unprecedentedly high levels, with over 10,000 registered negotiators and observers and long daily queues to enter the meeting rooms. Eventually, ‘Copenhagen’ failed to conclude the work on the Bali Plan of Action as no consensus was reached on the Copenhagen Accords. Nevertheless, the Copenhagen Accords contained a number of aspects which formed the basis for following, more successful negotiation rounds. For example, it stated that developing countries would implement mitigation actions, which was considered a first ‘break’ with the principle of common but differentiated responsibilities.\textsuperscript{27}

The Cancun Agreements of December 2010 (COP-16, Cancun, Mexico) reflected the shift in the negotiations since ‘Copenhagen’ from a top-down architecture where an overarching goal is translated into individual country targets (such as in the Kyoto Protocol) to one in which national pledges should add up to a joint international effort. The Cancun Agreements invited countries to formulate national targets (‘pledges’) and to agree on international review procedures for these.\textsuperscript{29}

The Cancun Agreements were considered a success as it managed to show a new direction for future climate negotiations. Up until ‘Copenhagen’, negotiations had attempted to formulate an overall GHG emission reduction target, based on science (i.e. IPCC) in combination with the precautionary principle of the UNFCCC, with individual country targets. ‘Copenhagen’ and 'Cancun' had shown that climate policy making might be more acceptable for countries if climate actions are embedded in domestic sustainable development objectives, especially when aiming at actively
involving developing countries in global climate policy making. For example, the Cancun Agreements contain a decision that developing countries "will take nationally appropriate mitigation actions [NAMAs] in the context of sustainable development, supported and enabled by technology, finance and capacity-building, aimed at achieving a deviation in emissions relative to ‘business as usual’ emissions in 2020.”

Finally, ‘Cancun’ was an important step as it:

- Elaborated on how capacity building and financial support to developing countries could be arranged;
- Offered guidelines for reducing GHG emissions through avoided deforestation and reduced land degradation; and
- Established the Technology Mechanism for support of development and transfer of technologies for mitigation and adaptation to developing countries

Sources

1. This article has been partly based on research done for Chapter 1 of the book Challenges and Solutions for Climate Change by W.P. van der Gaast and K.G. Begg (2012) and published by SpringerVerlag. Permission for this usage of the material has been granted by SpringerVerlag.
5. IPCC’s main task became to address climate change issues from a policy maker’s perspective. Since its start, the IPCC has completed five so called Assessment Reports, which contain the work of three Working Groups representing particular categories of scientific disciplines
7. INC was established on 21 December 1990 by the UN General Assembly (Resolution 45/212). It was scheduled that INC would deliver a draft Convention text that would be ready for signature at the 1992 UN Conference on Environment and Development (UNCED, Rio de Janeiro, Brazil, May-June 1992).
11. Berlin, Germany, March-April 1995. The first COP in 1995 could only be organised after the entry-into-force of the UNFCCC on 21 March 1994, 90 days after deposit of the 50th instrument of ratification (by Portugal, 21 December 1993).

18. For example, because of the concessions, Japan’s required emission reduction dropped from six percent below 1990 levels to a one percent reduction, while it was estimated that Canada could let its GHG emissions increase by five percent.


21. For the Kyoto Protocol to enter into force, 55% of industrialised countries’ GHG emissions in 1990 had to be covered by ratification. After the US withdrawal in 1990, the Russian Federation’s ratification was crucial for meeting that threshold.

22. The Kyoto Protocol could enter into force on 16 February 2005, 90 days after deposit of the instrument of ratification from the Russian Federation. With the Russian ratification the number of Annex I Parties became sufficiently large to represent at least 55% of the total GHG emissions of industrialised countries in 1990.


26. COP-15 and fifth meeting of Kyoto Protocol Parties (COP-MOP).

